Online journal publishing in Malaysia

This item was submitted to Loughborough University's Institutional Repository by the/an author.

Additional Information:


Metadata Record: https://dspace.lboro.ac.uk/2134/33898

Publisher: © Jama'yah Zakaria

Rights: This work is made available according to the conditions of the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0) licence. Full details of this licence are available at: https://creativecommons.org/licenses/by-nc-nd/4.0/

Please cite the published version.
Please note that fines are charged on ALL overdue items.
Online Journal Publishing in Malaysia

by

Jama'yah Zakaria

A Doctoral Thesis

Submitted in partial fulfilment of the requirements for the award of Doctor of Philosophy of the Loughborough University

January 2009

Supervisor: Dr. Fytton Rowland, Department of Information Sciences, Loughborough University

© by Jama'yah Zakaria, 2009
# Table of Contents

List of tables vii  
List of figures viii  
Abstract ix  

Chapter I: Introduction 1  
Background 1  
Problem statement 3  
Aim of the study 4  
Research questions 5  
Significance of study 5  
Scope of the study 5  
Limitations of the study 6  
Definition of terminologies 6  
Online publishing 7  
Scholarly journal 7  
Attitude of adoption 9  
Outline of the thesis 11  

Chapter 2: Information and communication technology in Malaysia 13  
Country background 13  
Malaysian development policy 14  
Malaysia's information technology policy 15  
The National Information Technology Council 17  
The Multimedia Super Corridor 18  
Internet in Malaysia 20  
ICT infrastructure and support 22  
Skilled workers in Malaysian ICT 23  
Journal publishing trends in Malaysia 24  
Channels of disseminating research results 25  
Language and technology competency 26  
Research activities in Malaysia 27  
Conclusion 29  

Chapter 3: Journal and online journal publication trends 30  
Introduction 30  
Scholarly journal publishing 30  
Developments in journal publishing 32  
Publishing and disseminating research results 34  
English language in scholarly publishing 37
### Chapter 6: Analysis of interviews

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>130</td>
</tr>
<tr>
<td>Publishing activity by the scholarly press</td>
<td>131</td>
</tr>
<tr>
<td>- The type of publications</td>
<td>131</td>
</tr>
<tr>
<td>- Publishing facilities</td>
<td>132</td>
</tr>
<tr>
<td>- The standard of local journals</td>
<td>132</td>
</tr>
<tr>
<td>- Authors' writing activity</td>
<td>135</td>
</tr>
<tr>
<td>- Indexing local journals</td>
<td>138</td>
</tr>
<tr>
<td>Local research articles publication channel</td>
<td>139</td>
</tr>
<tr>
<td>Lack of local research articles in international journals</td>
<td>142</td>
</tr>
<tr>
<td>Perceptions of online journal publishing</td>
<td>143</td>
</tr>
<tr>
<td>- Perceived advantages of publishing in online journals</td>
<td>144</td>
</tr>
<tr>
<td>- Perceived disadvantages of publishing in online journals</td>
<td>144</td>
</tr>
<tr>
<td>Online journal projects</td>
<td>147</td>
</tr>
<tr>
<td>- Publishing Unit's online project</td>
<td>148</td>
</tr>
<tr>
<td>- Faculty's online project</td>
<td>149</td>
</tr>
<tr>
<td>- The Special Interest Group (SIG) project</td>
<td>150</td>
</tr>
<tr>
<td>- Bystanders</td>
<td>154</td>
</tr>
<tr>
<td>Factors hindering online journal publishing</td>
<td>156</td>
</tr>
<tr>
<td>- The technological aspect</td>
<td>156</td>
</tr>
<tr>
<td>- The human aspect</td>
<td>156</td>
</tr>
<tr>
<td>Putting a price on online journals</td>
<td>170</td>
</tr>
<tr>
<td>Monitoring the output</td>
<td>171</td>
</tr>
<tr>
<td>Conclusion</td>
<td>173</td>
</tr>
</tbody>
</table>

### Chapter 7: Discussion

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>175</td>
</tr>
<tr>
<td>Respondents' background</td>
<td>175</td>
</tr>
<tr>
<td>- Age and the adoption of online publishing</td>
<td>176</td>
</tr>
<tr>
<td>- Gender and the adoption of online publishing</td>
<td>176</td>
</tr>
<tr>
<td>- Relationship between academic qualification and institutions with</td>
<td>177</td>
</tr>
<tr>
<td>the adoption of online publishing</td>
<td></td>
</tr>
<tr>
<td>- Ethnicity and ICT</td>
<td>177</td>
</tr>
<tr>
<td>- Place of work</td>
<td>178</td>
</tr>
<tr>
<td>- Designation in relation to the adoption of online publishing</td>
<td>179</td>
</tr>
<tr>
<td>- Working duration and the adoption of online publishing</td>
<td>179</td>
</tr>
<tr>
<td>- Field of expertise and the adoption of online publishing</td>
<td>180</td>
</tr>
<tr>
<td>Availability of technology and skills</td>
<td>181</td>
</tr>
<tr>
<td>Support factors</td>
<td>183</td>
</tr>
<tr>
<td>Publishing attitude among local researchers</td>
<td>186</td>
</tr>
<tr>
<td>- Writing skills</td>
<td>190</td>
</tr>
<tr>
<td>- Unwillingness to share</td>
<td>192</td>
</tr>
<tr>
<td>- English language skills</td>
<td>193</td>
</tr>
<tr>
<td>- Publishing factor</td>
<td>195</td>
</tr>
<tr>
<td>- Peer review</td>
<td>198</td>
</tr>
</tbody>
</table>
Chapter 8: Recommendations and conclusion 213

Introduction 213
The impact of ICT policy on online publishing 216
Recommendations 217
Future direction of online journals publishing in Malaysia 216

Bibliography 222

Appendices
Appendix 1 Self-administered questionnaire 242
Appendix 2 Translation of semi-structured interview 249
Appendix 3 Lists of Malaysian journals 330
Appendix 4 Number of lecturers at Malaysian public universities 333
Appendix 5 Clusters of discipline 334
List of tables

Table 2.1 Allocation for ICT-related programmes ......................................................... 24
Table 4.1 Number of questionnaires sent according to organization ................................. 71
Table 4.2 Reasons for low response rates ...................................................................... 74
Table 4.3 Number of interviewees and their designations ................................................. 77
Table 5.1 Cross tabulation of respondents' age and adoption of online publishing .......... 83
Table 5.2 Cross tabulation of respondents' gender and adoption of online publishing ....... 85
Table 5.3 Cross tabulation between ethnic group and adoption of online publishing ......... 86
Table 5.4 Cross tabulation of respondents' place of work and adoption of online publishing 87
Table 5.5 Cross tabulation of respondents' academic qualification and adoption of online publishing ........................................................................................................... 89
Table 5.6 Cross tabulation of respondents' education and adoption of online publishing ... 91
Table 5.7 Cross tabulation of respondents' current job designation and adoption of online publishing ........................................................................................................... 93
Table 5.8 Cross tabulation of respondents' current job duration and adoption of online publishing ........................................................................................................... 95
Table 5.9 Cross tabulation of respondents' field of expertise and adoption of online publishing ........................................................................................................... 96
Table 5.10 Access to computer and the Internet ............................................................... 97
Table 5.11 Cross tabulation of respondents' access to computers and the Internet at home and adoption of online publishing ........................................................................... 98
Table 5.12 Respondents' access to computers and the Internet at the office and adoption of online publishing ........................................................................................................... 99
Table 5.13 Frequency of respondents’ engaging in computer activities

Table 5.14 Cross tabulation of respondents’ engaging in computer activities and adoption of online publishing

Table 5.15 Frequency of respondents’ use of electronic resources for research purposes

Table 5.16 Cross tabulation of respondents’ use of electronic resources for research purposes and adoption of online publishing

Table 5.17 Chi-square test between using electronic resources for research purposes and adoption of online publishing

Table 5.18 Frequency of respondents’ reasons for publishing research results

Table 5.19 Distribution of respondents’ reasons for publishing research results and the relationship with adoption of online publishing

Table 5.20 Publishing research results in online publication

Table 5.21 Cross tabulation between publishing in print publications and adoption of online publishing

Table 5.22 Chi-square test for publishing in print publications

Table 5.23 Articles written by language

Table 5.24 Articles written in English

Table 5.25 Articles written in the Malay language

Table 5.26 Correlation between language used in writing articles and adoption of publishing in online journals

Table 5.27 Important factors when considering where to publish

Table 5.28 Cross tabulation of important factors when considering where to publish and adoption of online publishing

Table 5.29 Frequency of peer review statements

Table 5.30 Cross tabulation of peer review statements and adoption of online publishing

Table 5.31 Frequency of copyright statements

Table 5.32 Cross tabulation between adoption and copyright statement

Table 5.33 Cross tabulation between electronic preprint archives and adoption of online publishing

Table 5.34 List of place where respondents deposited the electronic preprint
| Table 5.35 | Factors persuading to publish in online publication | 123 |
| Table 5.36 | Cross tabulation between factors persuading to publish in online journals and adoption of online publishing | 124 |
| Table 5.37 | Hindering factors to online publishing | 125 |
| Table 5.38 | Cross tabulation between hindering factors and adoption of online publishing | 126 |
| Table 5.39 | Cross tabulation between future of online journal and adoption of online publishing | 127 |
List of figures

Figure 3.1  The research framework 58
Figure 5.1  Bar chart of respondents' ages 82
Figure 5.2  Pie chart of respondents' gender 84
Figure 5.3  Pie chart of respondents' ethnic groups 86
Figure 5.4  Pie chart of respondents' place of work 87
Figure 5.5  Pie chart of respondents' highest qualification 88
Figure 5.6  Pie chart of respondents' place of education 90
Figure 5.7  Pie chart of respondents' current job designation 92
Figure 5.8  Bar chart of respondents' duration in current job 94
Figure 5.9  Bar chart of respondents' field of expertise 96
Figure 5.10  Bar chart for publishing in print publication 107
Figure 5.11  Pie chart of future perception of online journals in 5 year time 127
ABSTRACT

As recently as two decades ago, online journal publishing becomes an integral part of academic activity in educational institutions and research organizations across the globe. In Malaysia, this is a new development and still in its early stage. In the global race to publish research results in online journals, local researchers are reluctant participants. This research looks into the factors that influence the adoption of online journal among Malaysian researchers. Davis's Technology Acceptance Model, Rogers' Diffusion of Innovation and Hofstede's Cultural Dimension theories were considered against the background of the multicultural society of Malaysia. A mixed method approach was employed, beginning with a quantitative web-based survey of more than seven thousand subjects in the public domain in Malaysia. Qualitative semi-structured interviews of thirteen administrators and lecturers who are involved in publication/press of public educational and research organizations were conducted during a three months period. The findings were supportive of the theories, especially in relation to Hofstede's Cultural Dimension Theory. In conclusion, as strategies to promote more online journal publications activities among local researchers, the government must play a bigger role in building the infrastructures, implementing positive and clear related policies as well as providing incentives for local researchers to publish in online journals.
Chapter 1

Introduction

Background

For more than 500 years, information and knowledge have been recorded and disseminated formally through printed media—books, journals, pamphlets, and so on. In the late twentieth century however, with the advent of information technology, electronic publishing has challenged this situation. Electronic publishing has benefited from the spread of the Internet and the World Wide Web.

The use of the Internet all over the world has increased. By the end of 2005 more than one billion people had used the Internet, an increase of 182% in usage in that year (Internet World Stats, 2005). The Internet has helped accelerate the globalization process, a concept where socio-geographical boundaries are becoming less significant. Goods, investments and knowledge flow freely within and between countries. The Internet has connected developed and developing countries, especially in terms of information flows (Johnson, 2002, p. 428).

Incidentally, along with this development, the usage of the electronic journal as a communication channel among scholars has also correspondently increased and gained popularity due to its perceived advantages over the print medium. For instance, Ludwick and Glazer (2000, p.4) noted that the “advantages of electronic journals include accessibility, usability, increased communication and collaboration between authors and
readers, dissemination, technologic capabilities, facilitation of scholarly work and cost”, which means information is easy to access, with cheaper cost, available at any time and wider coverage compared to printed journals. Thus, publishing journals electronically has become a trend for publishers and authors in developed as well as developing countries. Example of online journals projects such as BioOne (http://www.bioone.org/), and African Journals Online (http://www.ajol.info/), to name but a few, have attracted many researchers to publish their research results electronically.

In other developments, since the late 1980s libraries have been plagued by the dilemma of escalating journal prices and decreasing budget to purchase them (Moghaddam, 2006). More money is needed to buy fewer titles. This situation, known as the ‘serials crisis’ caused cancellation of titles, and made the price of journals even higher, due to smaller print runs. The development of communication technology in electronic publication permitted an alternative way of disseminating information.

The serials crisis and the perceived advantages of electronic publishing partly contributed to the development of electronic journal publishing. In less than ten years since the inception of the World Wide Web (the 1990s), electronic journals became familiar and important to many of us. Morse and Clintworth (2000) compared the usage of electronic and printed journals, and found out that “there were approximately 28,000 electronic viewings of full text articles from the study subset, compared to only 1,800 uses of corresponding print volumes”. Tenopir (2004, p.111) noted “in 2002 issue of Ulrich’s List of world wide serials, there are approximately 16,000 scholarly peer-reviewed journals listed, and over 12,000 of those are available in electronic form”. She further estimates that there were about 43,500 active serials and about 14,600 were online.

However, the majority of online journals were published in developed countries as the technology originated from these countries. The majority of the developing countries on the other hand have mainly acted as users and not as providers of the information distributed in the Internet. To ensure the balance in the knowledge flow, researchers from
the developing nations should participate actively in publishing their findings electronically.

Malaysia as a developing country has been actively involved in importing information and communication technology (ICT) together with the know-how from the developed countries in order to become a developed nation by the year 2020. Malaysians have been exposed to ICT and the usage of computers and the Internet for a while now. Government and private sectors in Malaysia have invested a massive amount of money to bring in the technology and know-how to enable Malaysia to stay abreast with other countries. However, to what extent the people have reacted to this opportunity and the challenge it provided is not yet clear. This study will uncover the action taken by Malaysian researchers in one aspect of IT use: electronic journal publishing.

Journal publishing is one of the many areas where ICT could offer an alternative medium to disseminate knowledge and information. Many scholars are aware of the capability of the Internet to their work, and thus benefit from it and involve themselves actively. Others may be less aware or apprehensive of the new ways, and do not participate. Likewise, Malaysian scholars are involved in research and publishing their research results in various publication formats and media.

**Problem statement**

The Internet is fast becoming an important medium in disseminating the work of scholars. Malaysians who work in the public and private sectors are generally exposed to computers and the Internet in their daily work. Researchers in these organizations have the opportunity to use these facilities, as their counterparts in the West, in gathering and disseminating research results. As Internet users Malaysian researchers are familiar with the usage of the Internet in accessing and seeking information. Huzaimah and Zainab (2006, p. 105) note that Malaysians use the electronic journals to support research and teaching needs.
Research concerning online journal publishing activities is little and scattered. Roosfa (2000), in his study of academics in seven Malaysian universities, revealed that academics are positive towards online publishing, and 84% use online journal for information, but very few (7.3%) had published in online journals. In another survey, Zainab and Edzan (2000, p.81) found that "the number of Malaysian scholarly journals on the Internet is small but is gradually increasing". In 2006, there were fifteen online journals published in Malaysia (Zainab and Abrizah, 2006).

Based on the current scenario, where online articles are becoming popular among researchers as a source of information and knowledge, publishing in online journals by Malaysian researchers has taken the opposite turn. Thus this study aims to investigate the adoption of technology among Malaysian researchers in their activities of publishing their research results in online journals.

Aim of the study

The aim of the research is to determine the adoption of online journals among researchers in the public higher learning and research institutions in Malaysia in disseminating their research results. The following objectives were formulated in order to achieve the aim of the study;

1. To identify publishing attitudes among Malaysian researchers
2. To understand the adoption of online journal in local public higher learning and research institutions
3. Finally, to identify and explore factors promoting or hindering the activity of online journal publishing in Malaysia
Research questions

In this study, several research questions were drawn up in order to meet the objectives, and these were:

1. Do Malaysian researchers often write and publish their research results in journals?
2. What are the perceptions of the management and researchers towards online journal publishing as a whole?
3. What are the factors affecting online journal publishing in Malaysia?

Significance of study

The research is vital in understanding the scenario of online journal publishing in Malaysia. The findings may inform policy makers in the public publishing entities as well as Malaysian researchers, and this will lead the relevant authorities to take the necessary steps in developing and improving local online journal publishing.

Scope of the study

The Malaysian government has spent a lot of money in facilitating its agencies with information technologies and corresponding research grants. To justify the expenditures, researchers are expected to publish in order to disseminate new knowledge to further technological development. Researches done in the public sector are varied, encompassing both science and non-science domains. As the new trend in publishing research results is to go online, this study will focus on the adoption of publishing in online journal among researchers who work in the public universities and research institutes in Malaysia.
Limitations of the study

This study is limited to researchers in public universities and the public research organizations in Malaysia. The respondents must have functional e-mail addresses, as the self-administered questionnaires were sent and received via the Internet. The e-mail addresses are obtained either through the representatives of the respective organizations or through the organizations' websites.

For the semi-structured interviews, the interviewees were selected from the officers and managers of university presses and research institutes' publishing units, as well as other individuals who are involved directly in online publishing in peninsular Malaysia. The two university presses in Sabah and Sarawak were not included, for pragmatic reasons.

As the study is exploratory in nature, the research framework touches on four factors that are assumed to have influence on the adoption of online publishing in Malaysia: 1) the respondents' demography; 2) availability of technology and skills; 3) support from organizations; and lastly 4) publishing trends. There are many factors that may contribute to the adoption of online journal publishing. For the purpose of this study however, only the four stated will be considered. Future research may address factors that are not touched in this study.

Definition of terminologies

In this study several terms are used, and operative definitions are explained below for clarity purposes.
Online publishing

The terms ‘online publishing’ and ‘electronic publishing’ will be used interchangeably. Electronic or online publishing is a form of publishing in which books, journals or other publishing products are produced and stored electronically. They take many forms including online, on disk or CD-ROM, as a file that can be downloaded or transmitted via e-mail, or as file that can be downloaded to hand-held electronic reader or similar device (Allen, 1999).

Scholarly journal

Sometimes people refer to journals as ‘serials’ because they are published in successive parts, bearing numerical or chronological designation and intended to be continued indefinitely (Page et al., 1997). At other times, people refer to journals as ‘periodicals’ because they appear at stated intervals and contain different articles or papers by different authors (Page et al., 1997). Another publication with similar attributes is the magazine. Although journals and magazines share periodical and serial attributes, they differ in various ways such as: journals are commonly presented as serious and formal, while magazines are more attractive and casual; journals usually lack colourful illustrations and have few, if any, advertisements. Magazines usually include many colourful illustrations and advertisements.

In terms of content, journal articles are written by scholars or experts for people with a serious interest in the topic, as the articles report the authors' research or scholarship, as Feather (2003, p. 70) noted: “the papers in academic journals are written by academics for each other. They are typically based on original research, or contain a significant and authoritative reinterpretation of existing knowledge”. One of the main characteristic of an academic journal is that it must be peer reviewed. Peer reviewed is a process of ensuring that articles published in the academic journals are of an acceptable academic standard as the articles are sent to scholars in the same discipline (the peers) prior to publication. Magazine articles on the other hand are usually written by journalists or
professional writers for people with a general or casual interest in the topic, as the articles report interesting events, news, or other popular topics. Journal articles include the author's name and credentials, whereas magazine articles usually include only the author's name. Journal articles usually include footnotes or a bibliography of articles or books that the author used in his work, while magazine articles usually do not include footnotes or a bibliography. Therefore journals are usually scholarly in nature.

An 'electronic journal' or 'online journal' can be defined as a digital periodical dedicated to publishing and disseminating scholarly research results on the Internet. It is a type of electronic serial publication which is available over the Internet or on disk.

At this point the term 'electronic journal' or 'online journal' does not differentiate between parallel publishing and online-only. Parallel publishing or hybrid publishing refers to publishing of print journals that have online versions. This type of journal is in abundance and might well be the first step towards becoming online-only journals later. There are cases where online journals started with the online version and this was followed by the print version. On the other hand, online-only journals do not have print version.

The technology that enables journal articles to be distributed online has presented new and uncharted possibilities of disseminating research results world wide without charging the readers. One of these initiatives is open access (OA). According to the Budapest Open Access Initiative (BOAI) (http://www.soros.org/openaccess/index.shtml), open access is free availability of scholarly articles on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers. In general, the unlimited access to scholarly publications is not restricted to peer-reviewed journal articles only, but to any unreviewed preprints that authors publish online for peer feedback or to alert colleagues to important research findings. The open access movement has provided free access to
much content and benefitted scholars especially in the developing countries as many could not afford to subscribe journals due to their high prices (BOAI, nd).

There are two ways to create open access: 1) self-archiving (green type) and 2) publish in the open access journals (gold type) (Jeffery, 2006). In self-archiving, the author of the articles put his articles on his personal an/or institutional Web sites that is accessible for free by users. The type of articles to be posted could be those that are already published in the peer-reviewed print journals, conference proceedings paper or monograph and any other type of non-peer reviewed publications. This self-archiving exercise include repositories or archives. There are three types of archives: 1) Preprints archives that contain pre-peer-review articles; 2) Post-prints archives that contain post-peer-review articles; and 3) e-print archives that contain preprints or postprints articles in the electronic form (Jeffrey, 2006).

Another way to achieve open access is to publish in open access journals. Since open access journals do not charge subscription or access fees they have to charge the author or the author’s institution for their publication expenses. This model is known as ‘author-pays model’ and was pioneered among medical publishers such as Biomed Central who publish more than 107 online journals (Delamonthe and Smith, 2004) In this model, the author has to pay for publishing his articles that cover the costs of processing the articles—peer review and technical editing, and distributing online.

**Attitude of Adoption**

To define attitude with one definition is difficult, due to the sheer number of definitions that have developed over time to cater to multidimensional concepts consisting of affective, cognitive and conative components (Fishbein, 1967, p. v). However, according to Triandis (1971, p.2), the definition by Allport is still highly influential. According to Allport (cited in Triandis, 1971, p.2) attitude is “a mental and neural state of readiness,
organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related”.

Halloran (1967, p. 14) explains further that attitude is a state of readiness to perceive, interpret and deal with people and objects around them; that attitudes are not inherent but learned, developed and organized through experience; that attitude is dynamic in that it can be motivated and lead to seeking or avoiding the object in discussion.

Fishbein (1967, p. 257) define attitude as “learned predisposition to respond to an object or class of objects in a favourable or unfavourable way”. From the definition it is clear that attitude involve an evaluative dimension (Baron, 1989, p. 479), i.e. feeling of liking and disliking for objects, events or people. Thus attitudes are not directly observable but rather are inferred from the objective, evaluative responses a person makes (Halloran, 1967, p.15).

It can be concluded that attitude is a state of mind but is manifested in behaviour that can be seen or interpreted, through several behavioural indicators such as what people say or do, how they respond to questionnaires or through physiological signs such as changes in the heart rate, perspiration and others. Also, attitude can be changed if the right stimulus is presented and it is neither permanent nor static.

However, it should also be noted that this study is not a purely behavioural study in the psychological form, in that it will not look at psychological characteristics that defined attitude. Rather, it is a study that will look at general inclinations of local researchers towards adopting (or not adopting) preference for online journals. For instance, the questions used was ‘How often do you publish on-line’. This type of question is a simple inquiry into the activity of the researcher as opposed to discover specific, intrinsic human behaviour. As such ‘attitude’ in this study is inferred from the respondents’ choice of adopting (or not adopting) a particular technology, which is in this case publishing research results in online journals.
Outline of the thesis

The remainder of the thesis is presented in the following order of chapters:

Chapter Two is the literature on Malaysia. It covers the Malaysian government policy on information and communication technology in order to elevate this country to be developed in the year 2020. It also touches on research activities in Malaysia by quoting reports from various sources such as the New Economic Policy, National Surveys and so on.

Chapter Three is a discussion on previous studies related to the adoption of online publishing. Three theories, Rogers' Diffusion of Innovation, Hofstede's Cultural Dimension and the Technology Acceptance Model, that underpin the research framework are also discussed.

In Chapter Four, the methodology is discussed. It provides thorough discussion on the samples, research design, and research instrument.

Chapter Five presents the quantitative data analysis of self-administered questionnaires and findings on the researchers adoption of online journals publishing.

Chapter Six is the analysis and findings from the semi-structured interviews with the university presses and publishing units of research institutes. This is to get some insight of the management perception towards online journal activities in their respective organizations.

Chapter Seven is the discussion of the findings from both quantitative and qualitative data analysis.
As a conclusion, Chapter Eight presents the recommendations and suggestions directed towards improving online journal publishing in Malaysia.
Chapter 2

Information and communication technology
In Malaysia

Country background

Geographically, Malaysia is located in South-East Asia, with an area of around 330,000 square kilometres. It consists of two geographical regions separated by the South China Sea—Peninsular Malaysia and East Malaysia (Sabah and Sarawak). The country is divided into thirteen states, in addition to the Federal Territories of Kuala Lumpur, Putrajaya, and Labuan in East Malaysia.

Malaysia is a member of the Commonwealth, and runs a parliamentary democracy system. A constitutional monarchy is rotated between the nine sultans in the peninsula every five years. Since its independence in 1957 from Britain, Malaysia has been governed by the Barisan Nasional (National Front) Party (http://en.wikipedia.org/wiki/Malaysia).

The population of Malaysia in 2007 was estimated at 28 million (http://www.internetworldstats.com/asia/my.htm). About one third (32.9%) of the population is under 15 years old, while 4.2 percent are over 65 years of age. Malaysia is a multi-ethnic nation with 62 percent Bumiputera (literally ‘son of the soil’). This group
includes the Malays, and various indigenous groups such as the Iban in Sarawak, the Kadazan-Dusun in Sabah and the Orang Asli in the Peninsula.

Others are Chinese (24%) and Indians (8%), and 6% are other non-citizen expatriates (http://en.wikipedia.org/wiki/Malaysia). The official religion is Islam, but Christian, Buddhist, Hindu, and other religions are practised freely. The official language of Malaysia is Bahasa Melayu (Malay language), with Chinese, Tamil and indigenous languages being used by their respective ethnic groups. English as a second language is widely spoken especially in the business and private sectors.

Until 1997, Malaysia experienced rapid economic development and attracted much foreign investment. However, the Asian financial crisis threw Malaysia into recession in 1998, and its currency has depreciated by almost 40 percent. Over time, Malaysia has shown steady recovery. The Gross National Income per capita in 2006 was US$5,450, and ranks 80th in the world. According to the World Bank classification, Malaysia is considered as an upper middle-income country (http://citeresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf).

Malaysian development policy

In 1967, the Government of Malaysia initiated the Five Year Plan strategy, to ensure that Malaysia will be on the right developmental path. The Eighth Malaysia Plan (2001-2005) embodies the National Vision Policy (NVP) or Vision 2020 that incorporates the critical thrusts of the previous development policies, such as eradicating poverty, restructuring society, and balanced development, as well as helping the country to become a fully developed nation by 2020.

Also emphasized in Vision 2020 is the aim to develop a knowledge-based economy and to strengthen human resource development to produce a competent, productive and knowledgeable workforce (Eight Malaysia Plan, 2001, p. 4). In short, Malaysia attempts
to sustain growth and competitiveness in the face of growing globalization and liberalization, and at the same time enhance the quality of life through the provision of social services.

Now Malaysia is in the Ninth Malaysia Plan (2006-2010) strategy. The continuation of the national development effort is divided into five key thrusts: moving the economy up the value chain; raising the capacity for knowledge and innovation and nurturing ‘first class mentality’; addressing persistent socio-economic inequalities constructively and productively; improving the standard and sustainability of quality of life; and strengthening the institutional and implementation capacity (Ninth Malaysia Plan, 2006, p. 14-18). According to the Plan, Malaysia has achieved remarkable progress: The Gross Domestic Product (GDP) per capita grew at an average of 7.1 percent per annum to US$10,318 in 2005; the training institutions produced a total of 597,384 skilled workers. RM4.8 million has been further allocated to upgrade training facilities for skills upgrading. Gross expenditures on research and development increased from RM1 billion in 1990 to RM4.3 billion in 2005 (the Malaysian Ringgit (RM) is worth approximately US$0.25). In terms of ICT infrastructure, the government reports that the penetration of personal computers installed had increased from 9.4% in the year of 2000 to 21.8% in 2005 (Ninth Malaysia Plan, p.135).

Malaysia’s information technology policy

The Malaysian government had embarked on the plan to digitalize the country in 1991 when the then Malaysian Prime Minister unveiled the Vision 2020 (Zaharom, 2003). The Vision 2020 is expected to stimulate Malaysia to become a fully developed country by the year 2020. The Malaysian Government has been encouraging ICT usage in various sectors and accelerated the growth of the ICT sector through various policy initiatives.

Malaysia has no expertise and technology of its own, and Malaysian ICT is based on and reliant upon the import of foreign technologies. Billions of Ringgit has been spent to bring in the technologies. In the Eighth Malaysia Plan 2001-2005, the government spent
about RM7.8 billion to develop ICT-related programmes. In the Ninth Malaysia Plan 2006-2010, another RM12.9 billion will be spent for the same cause (Ninth Malaysia Plan, p.154).

The Eighth Malaysia Plan (2001-2005), for instance, outlined the importance of information technology in the country by promoting and expanding the infrastructure in rural and remote areas. In the Plan, it is stated that Malaysia will expand the usage of information and communication technology, and that Malaysia will be developed as a global ICT and multimedia hub.

The Ministry of Energy, Communications and Multimedia, previously known as the Ministry of Energy, Telecommunications and Post, was established on 1 November 1998 as the government organization responsible for telecommunications, broadcasting, computing, postal services and energy (electricity) services in Malaysia.

To expedite and support the national policy in the communication industry, in 1998 the Communications and Multimedia Act (CMA) was enacted. The Act covers traditional broadcasting and telecommunications, as well as computer networks. There are two institutions to carry out the policy and objectives of the Act: the Ministry of Energy, Communications and Multimedia, and the Malaysian Communications and Multimedia Commission (MCMC).

The Malaysian Communications and Multimedia Commission was established in November 1998 and is to be the industry regulator. In November 2001, the government assigned the MCMC to take over the function of regulator and industry promoter of Postal and Digital Signatures from the Postal Department. In addition, the effort to ensure the orderly and smooth development of ICT in the country continues with reviews of the existing law and regulations. These include the Contracts Act 1950, the Evidence Act 1950, the Telecommunication 1950, the Copyright Act 1987, and the Broadcasting Act 1988 (Seventh Malaysia Plan, 1996. p. 466).
Another establishment to help the National Plan be realized concerning ICT is the National Information Technology Council (NITC), which was established in 1994. It comprises members from the public, private and community-interest sectors and functions, and is chaired by the Prime Minister. The function of the Council is to advise the government on ICT strategy, with the aim to enhance the development and utilization of ICT as a strategic technology for national development. The NITC was later transferred into the jurisdiction of the Ministry of Science, Technology and Innovation (MOSTI) following the restructuring of the Ministry in 2005.

In 1996 the National Information Technology Agenda (NITA) was laid out by NITC. NITA’s vision is to utilize ICT to transform all of the Malaysian society into an information society, then to a knowledge-based society and finally to a values-based knowledge society. The framework used by NITA is a balanced development of three key elements: namely people, infrastructure and applications.

In NITA’s framework the human capital is an important element that must change as the environment changes. This can be achieved by access and equity of infrastructure, and creating value and qualitative transformation of applications. The infrastructure element includes the hard and soft infrastructure. The hard infrastructure includes the computer hardware and relevant telecommunication components. The soft infrastructure, on the other hand, includes databases, networks, laws, and regulations. The third element in the framework is applications, which involves development of appropriate and cost effective content, which will be competitive in the market place (http://www.mosti.gov.my/opencms/MostePortal/NITC/NITCReferences.html).

To achieve the goals, NITA has organized many conferences, created implementation committees in order to continuously stimulate the private and public sectors to implement IT projects, and launched grant schemes such as the Demonstrator Applications Grant.
Scheme (DAGS) which involved an expenditure of RM48 million to promote the use of ICT and multimedia for socio-economic development (http://www.mosti.gov/opencms/opencms/MostiPortal/ST/StschemeEn.html).

The Multimedia Super Corridor

A further testament of the seriousness of the Malaysian Government on enhancing IT usage is the creation of the Multimedia Super Corridor (MSC). The MSC project is a dedicated corridor measuring 15 kilometres wide and 50 kilometres long. It stretches from the Petronas Twin Towers at Kuala Lumpur in the north, to the Kuala Lumpur International Airport (KLIA) in the south. The MSC Project has three stages:

- **Stage 1** 1996-2003 Creating MSC
- **Stage 2** 2004-2010 Linking the MSC to other cyber cities in Malaysia and worldwide
- **Stage 3** 2011-2020 Transforming Malaysia to a knowledge-based society

This is an ICT initiative offered by the Malaysian Government to the global community. The project is designed to act as a catalyst for ICT industries and products in Malaysia. To achieve this goal, the government is promoting MSC to attract leading companies of the world to locate their multimedia industries in the country, perform research, develop new products and technologies, and export it from this base. The MSC also provides facilities for other countries to use it as a test bed for multimedia applications and as a hub for their regional operations in Asia (http://www.msc.com.my/msc.asp).

To achieve its role as catalyst in ICT, MSC has established six flagship applications. Consortia of both local and foreign companies have to work with various government agencies to develop the applications. The flagship applications are:

1. Electronic government
Use multimedia technologies to transform the way the government operates, in order to improve accessibility and quality of interaction between citizens and services providers.

2. Multi-purpose card
   Create consolidated identification, license, health and other information in one card for the people.

3. TeleHealth
   Empower individuals by providing them with greater access to healthcare information, and thus improve personal health management.

4. Smart school
   Focus on improving the curriculum, pedagogy, and assessment as well as teaching-learning materials.

5. R&D cluster
   Collate corporate resources and create an environment to promote the development of next-generation multimedia technologies. This will be achieved by collaborative efforts of corporations, research institutes and universities.

6. E-business
   Develop the premier hard and soft infrastructure to encourage the growth of e-commerce in Malaysia (http://www.msc.com.my/msc.asp)

In order to make the venture a success Malaysia has to sell the idea and attract companies to participate in the MSC. One of the ways is to equip the MSC with a broadband network. Other incentives include fiscal incentives for setting up ICT companies, building the infrastructure, and developing the intelligent cities of Putrajaya and Cyberjaya. On top of this, companies with MSC status could enjoy additional privileges and taxation relief. Companies could apply for MCS status if they are heavy users or providers of multimedia products, employ a substantial number of knowledge workers, and are able to transfer technology to Malaysia. By the end of December 2001, there were 631 approved MSC companies, and 50 world-class companies (Minges and Gray, 2002).
A report by the Multimedia Development Corporation showed that in 2005, 1,163 companies awarded MSC status were involved in various activities ranging from software development to wireless technology (MSC Malaysia Impact Survey, 2006). These companies have hired a total of 30,933 workers, of which 89 percent were considered as knowledge workers. It was also reported that 88 percent of these knowledge workers are Malaysians (MSC Malaysia Impact Survey, 2006).

**Internet in Malaysia**

In 1990, the Malaysian Institute of Microelectronic Systems (MIMOS) set up a university computer network called *Rangkaian Komputer Malaysia* (Malaysian Computer Network) or RangKom (Hashim and Yusof, 1999). It had four dial-up lines to Australia, the Republic of Korea, Netherlands and the USA. It offered e-mail and participation in newsgroups.

In 1992 the dial-up connection was replaced by a satellite link to Stockton, California in the USA, and Malaysia was connected to the Internet including BITNET and NSFNet. Parallel to this development, MIMOS had established the Joint Advanced Integrated Networking (JARING), as an Internet Service Provider (ISP) in the country. In 1997, JARING was the first ISP in South East Asia to install a T3 (45Mbps) line (Hashim and Yusof, 1999).

The Internet became faster when JARING introduced the SuperJARING Internet backbone infrastructure with 2.5 Gigabits per second transmission in 1999. This fibre backbone service infrastructure runs through Penang, Kuala Lumpur, and Johor Baharu, and provides next-generation, bandwidth-intensive services such as Internet telephony; secure virtual private networks (VPN), video-on-demand, distance learning and telemedicine. In 2002, SuperJARING was extended to the East Coast of Peninsular Malaysia. Early in 2002, JARING commissioned two new STM-1 (155 Mbps each) links to the global Internet, providing highly redundant circuits riding on the latest APCN-2 submarine cable system (http://www.jaring.my/corporate/corporate_info/corporate.htm)
In November 1996, Telekom Malaysia Berhad, TMnet became the second Internet Service Provider (ISP) in the country to complement JARING (Hashim and Yusof, 1999). Other ISPs are Maxis.net, Malaysia Online, Nationet, Putra.Net and Silicon Central.

In 2001 (ITU, 2002), there were two million Internet subscribers, and about four million users, which means about 17.2 percent of the population were using the Internet in Malaysia. The number of subscribers came to about 5 million in 2006, while the users have increased to 13 million people (http://www.internetworldstats.com/asia/my.htm).

If the extent of usage can be measured by the number of personal computers, --ICT usage rose dramatically based on the number of computer units installed, assuming that the extent of usage parallel the number of PC's owned, from 610,000 in 1995 to 2.2 million in 2000 (Eighth Malaysia Plan, p. 366). However, the penetration rate of ICT usage was considered very low, with 9.0 percent of the population having access to PCs and 7.0 percent access to Internet (Eighth Malaysia Plan, p. 366). Furthermore, there is an obvious digital divide between rural and urban areas. In 2000, Kuala Lumpur, the capital of Malaysia had the highest number of Internet subscribers per 1,000 population at 103.9, followed by Selangor (the richest state in Malaysia) at 84.9.

The government has encouraged every Malaysian to own a computer. As the cost of a PC is identified as a hindrance factor for most rural households to own a computer, the government launched the ‘PC Ownership Campaign’ to facilitate PC ownership. Launched in October 1999, the programme allows citizens with children over ten years of age to withdraw their retirement contribution from the Employees Provident Fund (EPF) to purchase computers. Other initiatives created by government and the private sector are to offer of low-priced PCs at special computer fairs, and even lower-priced PCs when signing up to the Internet service.

Up to this point, the government has invested heavily on their part in developing ICT and encouraging people to use ICT and get connected, at least at policy level. However, to
what extent people have reacted to this challenge and the opportunity it provides remains to be seen. This study will discover the action taken by the people in one aspect of IT use—electronic journal publishing.

**ICT infrastructure and support**

There was a substantial investment in laying the appropriate infrastructure for ICT development. During the Seventh Malaysia Plan (1996-2000) about RM25.4 billion was allocated for telecommunication infrastructure in addition to about RM20.3 billion already spent on satellites, fibre optics, and broadband technology (Seventh Malaysia Plan, p. 465). Malaysia owns two satellites, MEASAT I and MEASAT II, to provide immediate and simultaneous point-to-point and point-to-multipoint telecommunications and broadcasting services throughout the country. In another development, the government has given the Malaysian Institute of Microelectronic Systems (MIMOS) an allocation of RM400 million to establish 100 nodes throughout the country.

Fibre optic cable was installed covering 62,000 kilometres, linking states and major towns throughout the country. For the Multimedia Super Corridor, the fibre optic backbone network covered 360 kilometres. The backbone also included the installation of Asynchronous Transfer Mode (ATM) switches at a number of points to support broadband Internet access.

The development of infrastructure continued in the Eighth Malaysia Plan (2001-2005). The capacity of the transmission backbone connecting Peninsular Malaysia and East Malaysia (Sabah and Sarawak) was increased using Wavelength Division Multiplexing (WDM) technology. This enables a transmission of high speed, broadband multimedia applications over long distances. For local networks, the existing copper cables were upgraded using Asymmetric Digital Subscriber Line (ADSL) technology to support multimedia applications (Hashim and Yusof, 1999).
Skilled workers in Malaysian ICT

As ICT is becoming more important, the demand for skilled workers continues to grow. It is projected that the demand for ICT-skilled workers will increase from 183,204 in 2005 to 300,000 in 2010 (Ninth Malaysia Plan, p. 151). To ensure steady supply, both primary and secondary public schools were provided with computer facilities.

More ICT-related courses were introduced in public as well as private higher learning institutions. In addition, the government encourages on-the-job training, to improve the workers’ knowledge. Under the Seventh Malaysia Plan 1996-2000, 14.7 percent of the RM 101.6 million in the Human Resource Development Fund was disbursed for ICT-based courses (Eighth Malaysia Plan, p. 378).

In 2000, 31 percent of primary and 54 percent of secondary schools in Malaysia had PC facilities, and 10 percent of primary and 34 percent of secondary schools had access to the Internet (ITU, 2002). On the other hand, all 14 public and 10 private universities and colleges had access to the Internet via leased lines, mostly JARING, which is a high-speed fibre-optic backbone. In the Ninth Malaysia Plan the allocation for developing ICT facilities has increased (Table 2.1).
Table 2.1: Allocation for ICT-related programmes (RM million)

<table>
<thead>
<tr>
<th>Programmes</th>
<th>8MP expenditure</th>
<th>9MP allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Computerisation of government agencies</strong></td>
<td>2,125.0</td>
<td>5,734.2</td>
</tr>
<tr>
<td><strong>Bridging the digital divide</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School</td>
<td>2,145.1</td>
<td>3,279.2</td>
</tr>
<tr>
<td>Communication infrastructure service provision programme</td>
<td>2,540.0</td>
<td>150.0</td>
</tr>
<tr>
<td>Telecentres</td>
<td>18.1</td>
<td>101.0</td>
</tr>
<tr>
<td>ICT training/services</td>
<td>15.9</td>
<td>180.0</td>
</tr>
<tr>
<td><strong>ICT funding</strong></td>
<td>1,125.6</td>
<td>1,493.0</td>
</tr>
<tr>
<td><strong>MSC multimedia applications</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e-government</td>
<td>5,377.7</td>
<td>572.7</td>
</tr>
<tr>
<td>Smart school</td>
<td>363.9</td>
<td>169.8</td>
</tr>
<tr>
<td>Telehealth</td>
<td>91.8</td>
<td>60.0</td>
</tr>
<tr>
<td>Government multipurpose card</td>
<td>159.7</td>
<td>298.0</td>
</tr>
<tr>
<td><strong>MSC development</strong></td>
<td>320.8</td>
<td>377.0</td>
</tr>
<tr>
<td><strong>ICT research and development</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7,885.1</td>
<td>12,888.9</td>
</tr>
</tbody>
</table>

Source: Ninth Malaysian Plan, 2006, p.154

Thus far, the discussion has touched on the ICT infrastructure and technological availability in Malaysia in relation to ICT. Next will be the discussion on the journal publishing activities of Malaysians, particularly by researchers at public institutions.

**Journal publishing trends in Malaysia**

There is very little literature concerning the history and development of Malaysian serials (Che Norma, 1999). The publishing industry as a whole is considered young and not an established one. For instance, there are discrepancies between different estimates of the
exact number of scholarly journals published in Malaysia. Hew (2001) noted that in the 1980s, there were estimated to be 149 scholarly journals published in Malaysia. She had also made a point that in the mid-1990s, the figure had apparently risen to 228, of which 59% were journals in the arts, humanities, and social science, and the rest were scientific, technical and medical journals although there appears to be discrepancy in categorising the journals (Hew, 2001). This discrepancy is due to the fact that many scholarly journals in Malaysia are not recognized and thus were not indexed in Malaysian libraries (Hew, 2001).

Hew further categorised the journals, 33% were published by universities, 23% by associations, 14% by research institutes, 6.5% by government offices and 22.9% by others (Hew, 2001). As in other post independence Third World countries, many publications were published either bilingually or in the English language. Hew (2001) noted that 50% of local scholarly journals were published bilingually, 30% in English, 10% in the indigenous language, and 5% in English, Arabic and Malay.

Some Malaysian research results find a place in established journals internationally. However, many do not, due to reasons such as research standards, time, language competencies, writing skills, information about the journal, acceptance and so on (Hew, 2001). The advent of technology has provided the alternative of publishing research results online. A number of university presses and research organizations have embarked upon online publishing in various models. Some have a full text with open access; some provides the past articles, while others just show the abstracts. There are also open access online journals published by groups of academics.

*Channels of disseminating research results*

Malaysian academics and researchers publish their research results in various channels, mainly in conference proceedings and printed journals. Gu (2002, p. 981) has indicated that between 1990 and 1999, computer science and information technology researchers in
Malaysia contributed more in conference proceedings (57.1%) than in journal articles (42.7%). As acceptance by journals is more rigorous compared to conference proceedings, many settled for the latter type of publication.

This scenario may be due to the fact that many articles are of low quality, as Hew (2001, p. 165) noted, "One of the greater 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." One of the interviewees, Ahmat Adam, as cited by Hew (2001), argues that editors rarely demand rewrites of shoddy manuscripts, because manuscripts are difficult to come by, and consequently editors compromise on quality to meet publishing deadlines.

Furthermore, as some of the scholarly publications are often delayed in their frequency cycle (Che Norma, 1999), scholars came to distrust journals that do not meet deadlines, and therefore hesitate to contribute their manuscripts to local journals, and prefer to publish their work in foreign journals (Hew, 2001). On the other hand, Gu (2002, p. 982) noted that this trend was associated with poor media of communication established domestically. For those Malaysian articles that appeared in foreign journals between 1990 to 1999, 39.3% were published in the UK, 27% in the USA and 14.8% in The Netherlands. Others included journals from Australia, Bangladesh, Canada, the Czech Republic, France, Germany, India, Japan, Malaysia, Singapore, Slovenia, Switzerland, and Taiwan (Gu, 2002).

Language and technology competency

As in many other Third World countries where English is important in both business and international relations, and the indigenous language is important for national regard, both languages are seen to complement and sometimes compete with each other. To fulfil the
indigenous people's aspirations, the education system, especially public schools and higher education institutions, uses indigenous language. This has created graduates and later on researchers who are competent in the indigenous language. However, this does not help them gain recognition beyond the country's borders.

In Malaysia, journals are written in several formats: Malay language only including the abstract, Malay and English with abstract in both languages, and English language. Hew (2001) noted that over 50% of Malaysian scholarly journals are bilingual, 30% are in English and 10% are in the indigenous language. There are also Chinese and Tamil language journals but their impact is not strong (Hew, 2001).

The majority of established journals are in English and published by institutions from developed countries. In addition, journals that are published online are also located within a system that is only accessible in English. What this meant was the whole process of accessing and producing the articles online is not friendly to non-English speaking user. As such, the lack of understanding the English language is becoming a barrier for the optimum use of ICT as the technology is English language-based for both the software and the hardware development. For example, a study showed that the difficulty in understanding the English language hindered local people from using computers and the Internet (Narimah and Raju, 2001). Thus competency in English language is a prerequisite and a driving factor in article-writing among Malaysian researchers.

Research activities in Malaysia

In Malaysia, academics in higher education institutions, researchers in government research institutes, and researchers in commercial organizations conduct research. The research funding is from the government, the private sector, or sources from outside the country such as the British Council, UNESCO, Japanese International Cooperation Agency (JICA) and others. The biggest single local sponsor from the government is the program called Intensification of Research in Priority Areas (IRPA), which was housed
under a unit governed by the Ministry of Science and Technology. Under the Seventh Malaysian Plan for instance the allocation for research and development from 1996 to 2000 by IRPA was 1 billion Malaysian Ringgit (RM).

According to a 1998 National Survey of R&D Report, Institutions for Higher Learning in Malaysia spent RM133.6 million in 1998, whereas government agencies and research institutes spent RM247.3 million for R&D activities in the same year. The higher institutions spent 68.3% of their total research expenditure, amounting to RM 91.3 million, on basic research, RM32.1 million (24%) on applied research, and RM10.2 million (7.6%) on experimental development. For Governmental Research Institutes, there was a drastic increase of total expenditure in Information, Computer and Communication Technology from less than RM5 million in 1996 to RM100 million in 1998. This might be due to the government announcement of the importance of this sector to the nation’s economy.

As reflected by the research expenditure, the majority of the research activities in higher learning institutes are in science fields such as Chemical Sciences (51.4%), Medical and Health Science (15.6%), Agricultural Sciences (6.1%), Information, Computer and Communication Technologies (5%), and Biological Sciences (4.9%). The majority of the research activities in Research Institutes, on the other hand, are in Computer and Information Technology (40.4%), Agricultural Sciences (24.9%), and Applied Sciences (12.2%).

The allocation for R&D has been increasing since then to ensure sustainable development. During the Eighth Malaysia Plan 2001-2005, RM1.4 billion was allocated for R&D in the public sector, and under Ninth Malaysia Plan 2006-2010 the allocation has increased to RM1.5 billion (Ninth Malaysia Plan, 2006, p.265-279)
Conclusion

The Malaysian government is very serious about bringing ICT into the country to ensure that Malaysia will become a developed country by the year 2020. Massive financial investment has been spent, plans and strategies have been made, and several authorities have been created to ensure all the programmes related to technology are working. The ICT is to be used by the people, and for that people have to correspond with the changes that are happening around the world.

The Malaysian government is also aware that R&D is crucial in the nation's development and has encouraged research activities by allocating a lot of money to R&D. However, research results are useless if they not published and disseminated either locally or internationally to be used or to trigger further discussion and improvement. Publishing research results is therefore vital for Malaysian researchers.

In terms of local journal publications, the area is considered still in its infancy, as very little is known about the history and current status. As journal publication is one of the major avenues for the documentation and recording of research results, this must be viewed as a significant activity and must be managed by both the government and policymakers and the authors themselves.

Chapter Three will discuss the theories underlying the activities in the on-line journal publication literature before going into the discussion of the framework for the research.
Chapter 3

Journal and online journal publication trends

Introduction

This chapter presents a review of the literature pertaining to scholarly publishing activities and their development, especially in the West, the effect of information technology on journal publishing and the dissemination of knowledge, and attitudes towards publishing in online journals.

The literature was obtained from online journals as well as printed journals, and other print and online materials including books and conference proceedings. The literature search used several keywords, particularly scholarly journal publishing, online journals, and attitude towards technology.

Scholarly journal publishing

The history of journal publishing began in Europe in the 1600s and later in North America, around 1800 (Tenopir and King, 2000). Traditionally, journals were published by societies, but after the Second World War, commercial publishers became important producers of journals (Page et al., 1997) in the West. In many developing countries scholarly journals are published by societies and government organizations such as
universities and government research institutes, due to costs and other resource requirements.

After more than three centuries, journals still have a special role in scientific communication. The survival of academia depended on publication in the journals (Frey, 2003, p. 205). This channel of communicating grants the authors recognition from their scholastic peers worldwide. Tenopir & King (2000, p.95) have outlined the roles of the scholarly journal: it is a means of communicating new, edited, and peer-reviewed scientific information; it bundles like articles addressed to the same audience; it serves as integral part of creativity where ideas are modified during the writing process; it provides an inexpensive means of communicating, considering the cost per reading of articles; the journal process protects against plagiarism; it provides assurance that the record of ideas, discovery, and hypotheses tested is not altered; it conveys prestige and recognition to authors, their research, and their institutions; and journals serve as a permanent archive for scientific information.

As a means of communicating knowledge, journals are widely accepted and recognized by scholars and researchers. Journals play an important role in developing knowledge because they report new knowledge, interpret research, and provide a forum for debate and discussion (Altbach, 1987, p.132). According to Altbach (1987, p. xi), in the educational system, journals provide the most advanced levels of knowledge, while textbooks and other curricular materials provide the basic knowledge. In fact, many researchers particularly prefer to read journals because they contain articles on discrete subjects, articles that are more concentrated and up to date than books (Baldwin & Pullinger, 2000, p.232).

Studies of the usage of scholarly journals have found that people use journals to keep themselves up to date with research articles published in their specific area or a related area, for gathering information on new areas they may be embarking on, for preparing a presentation or writing articles, and for teaching (Baldwin & Pullinger, 2000, p. 230). Journals are recognized for reference as well as a channel to distribute information and knowledge. Publishing research shows that peer-reviewed journals with high impact
factor and an international readership are regarded as highly desirable by authors (Halliday and Oppenheim, 2001, p.261).

Journals are recognized as a performance index in tenure processes in developed as well as developing countries. “Tenure, which is achieved by reward and recognition in academia, is essentially linked to the publication activity of scholars and the quality standard of journals” (Keller, 2001, p.385). Contributing to journals means visibility, esteem and career mobility, thus “it is clear that publishing journal articles is a means of improving one’s professional status and perhaps prestige” (Shelley and Schuh, 2001, p.11). Feather adds “Indeed, their career progression, particularly in the sciences, is almost wholly dependent on journal publication” (Feather, 2003, p.70).

Development in journal publishing

The first national scientific societies in the modern tradition were founded in the 1660s, and witnessed the establishment of the first scientific periodicals (De Solla Price, 1963, p.8). The first scientific journals published were Journal des Scavans, founded by Denis de Sallo in 1665 (Journal des Scavans at http://en.wikipedia.org/wiki/Journal_des_Scavans) and Philosophical Transactions of the Royal Society, also founded in 1665 by the Royal Society (Philosophical Transaction of the Royal Society at http://en.wikipedia.org/wiki/Philosophical_Transactions_of_the_Royal_Society).

De Solla Price states that science grow exponentially: “the crude size of science in manpower or in publication tends to double within a period of 10 to 15 years” (1963, p.6). As science grow exponentially “thus, in the interval from 1660 to the present day, such indices of the size of sciences should have increased by the order of a million” (De Solla Price, 1963, p.7).

As knowledge develops, many subjects have branched out to create niches or new disciplines. Subsequently, many new journals have been published to cater for the
increasing number of articles needing publication. Henderson (2002, p.5) points out that “world production of journal articles increased threefold. The Physics Abstracts database grew even more, from 624,000 records to 2,852,000 records, doubling every ten years or so from 1970 to 1990”. Currently there are at least 24,000 peer-reviewed journals in all disciplines (Brody, 2004). In another instance Tenopir (2004) estimates there are about 43,500 active journals being published. These journals are all competing to get readers or “war for the eyeballs” (Odlyzko, 2002). Thus, the earliest and easiest articles accessed will naturally get the attention.

Journals have existed for more than three centuries, as a primary medium in communicating knowledge among scholars. Many studies (Keller, 2001, p. 385; Jones and Cook, 2000; Baldwin, 2000, p.230) have shown that journals still hold a key position in scholarly communication. Researchers use scholarly journals in two ways; as a consumer of information and a supplier of materials for journals’ publishing activities.

The advent of information technology had changed the way knowledge is transmitted and disseminated to its audiences. The printed form of publications, including journals, has been challenged by the electronic means or online dissemination. The print form has been said to be “ill-suited to modern science” and a barrier to communication (Arms, 1998). Disseminating print journals is time-consuming and costly, and it is easy for journals to get damaged during handling.

Even though the electronic journal is far from settled, with many issues such as copyright and licensing, access problems, archiving and permanency, and costing models to name a few, its advantages are difficult to ignore. For instance, by disseminating electronically, authors could share their findings with colleagues who have access, and get feedback on their research promptly. On the other hand, users are able to access a lot more information compared to print, at a single touch. The soaring demand has influenced the high supply of online journal publishing, particularly in the developed nations.
As technology improves, certain weaknesses, such as poor quality screens, and slow access to electronic journals, are also rectified. Due to its advantages, people’s preferences and global trends, the number of online journals has been increasing tremendously in the West.

Publishing and disseminating research results

Knowledge is accumulated and built from previous information. Knowledge by itself does not contribute anything to mankind. It must be disseminated, and put into use, for benefit to be gained from it. Knowledge must be communicated and made available to the scientific community for validation and further research (Berry, 2000, p. 38 and Garvey, 1979, p. 2), and the scientific journal article is the main and proper medium for communicating this knowledge (Garvey, 1979, p. 11).

For the scholarly community, disseminating and sharing research results is fundamental. In doing so, an author has to publish in book form, report, conference paper or refereed journal (McKnight and Price, 1999, p. 559), using either printed or electronic channels. However, publishing in journals is seen as being the most prestigious. Altbach (1987, p.72) notes “even in an age of computer-based data networks, journals are the standard means of communicating the latest knowledge in most academic fields.” This is because the system of scholarly journals enables validation, thus increasing its credibility.

According to McKnight and Price (1999, p. 559) “authors publish to establish their membership in the scholarly community, to relate their ideas to the existing knowledge and to achieve recognition within the community.” Unlike other authors, scholars write and publish their research results not for profit but for promotion, tenure and other academic rewards. Harnad (2001) notes:

“...that they publish their research findings (in refereed scholarly journals) not for royalties or fees, but for research impact. They are rewarded (by their universities, research funding sources, prizes committees and posterity) for their research productivity,
which is assessed not on the basis of the sheer magnitude of their output (as 'publish or perish' would suggest), but on the magnitude of its uptake: how much do their contributions affect the present and future course of research? Do other researchers use, cite and build upon them?

Thus, what scholars want is to disseminate their publication as widely as possible. Their aim is to make their work accessible to their audiences without barriers, so that research can be replicated and their work can be cited for the development of knowledge.

The Internet as a gateway to the global information environment plays a significant role in supporting research activities (Mili, 2000, p.157). The Internet has become a major information vehicle, especially among the scientific community. As a channel for document delivery, authors could disseminate research results themselves, without publishers as mediators. Although reviewing and editing is important to make sure the article has an acceptable quality, authors might choose to disseminate their work themselves to get feedback from colleagues before sending the articles to publishers. The new medium has enabled authors to choose the ways they use to disseminate their research results.

The dissemination process in developed countries is well established, along with publishing activities. Although to disseminate journals in print form is expensive and time consuming, many other countries outside their borders subscribe to journals from developed countries. This is because knowledge is international. The knowledge dissemination system is dominated and controlled by major industrialized nations such as the USA, Britain, France, and Germany (Altbach, 1987, p. xv). Many developing countries have become dependent on developed countries for their publishing products.

Before the journals can reach the subscribers, especially in foreign countries, they undergo a lot of processes. Publishers charge a high price to subscribers and make some profit in doing the job, thus increasing the journal prices even more. Due to high prices many subscribers, especially in the Third World countries, can not afford to pay, which means that they have no access to such materials. This limits access to potential users.
Another factor that barred information access by the developing countries is the foreign exchange rate. Most developing countries have a currency exchange rate much lower than the countries from where many journals originated. These countries have to spend more to buy fewer foreign journals, and eventually a smaller number of journals are affordable to them.

Towards the end of the twentieth century, the circulations of printed journals were declining, partly because many new journals were emerging, and partly because of the increasing price, and budget cuts for libraries—the major purchasers (Budd, 2002). This situation is widely described as the ‘serials crisis’ and affects the whole world. Many journals experienced low print runs and therefore loss of profits. Some have even ceased publication.

Together with the development in the technology and the desire to bring some relief to the difficulties to access research results especially in the developing countries, open access initiatives were introduced, where articles can be accessed worldwide free of charge. The initiative began when the Open Society Institute (OSI) met in Budapest in December 2001 to discuss the dissemination of research articles in all academic fields to be made freely available on the Internet (Budapest Open Access Initiative, 2001). Later in February 2002 the first major international statement on open access was issued. It was followed by the Bethesda Statement in June 2003 and Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities in October 2003 (Budapest Open Access Initiative, 2008). It is assumed that with these open access initiatives, more researchers' from the developing countries could produce and access online scholarly writings among their peers from the developed countries.

In relation to authors' attitudes towards publishing, Harnad (1998), as cited by Oppenheim et al. (2000, p.365), said “a scholar’s main aim is to make a contribution to knowledge and offer this to other scholars without restriction.” By publishing electronically, scholars may achieve this aim more easily than in print form. On the other hand, Schauder (1994), as cited by Oppenheim et al. (2000, p.365), claimed that the main
reasons scholars publish is to gain prestige—the motivation for academics to publish seems to be a subtle blend of career necessity and professional idealism.”

Weiner (2001) indicated that paper journals are also threatened by other forces, such as the proliferation of paper and electronic journals as a result of the ‘publish and perish’ academic cultures of many western countries, and the increased use of the academic journal as a means of evaluating the quality of one’s scholarship. Furthermore, the widespread assessment exercises that are based on publication in learned journals have led to perceptions that the practices of academic journals are more important to individual academics and their institutions than ever before.

“We believe most scholars see a future where scholarly journals continue to play a vital role in the dissemination of scholarly research. Scholarly journals provide too much added value to be discarded” (Sosteric et al., 2001, p.13)

English language in scholarly publishing

English has become the important language of communications as well as in publishing. The spread of the English language outside Europe began in the sixteenth century through colonialism, and it is estimated that 1,200-1,500 million people throughout the world speak English at various levels (Feather, 2003, p. 17). This factor has contributed to the development of the publishing industry in the developed countries. Feather (2003, p.18) noted:

“...publishing and language are symbiotically connected. When a language is known to tens or hundreds of millions of literate people, there is a market for its books, magazines and newspapers.”

Due to the acceptance of the English language as the international language of knowledge, publishing activities, including journals, have been centred in a small number of developed nations. “Language is therefore a key element of the international knowledge system, an element that works to the disadvantage of the Third World…” (Altbach, 1987;
The developed nations are the producers of most of the world's knowledge and also control the means of distributing that knowledge (Altbach, 1987, p.xv).

In addition to the language issue scholarly journals in the developing countries are saddled with other problems as well. Some publishers have minimal or no funding to publish journals. Revenue is from subscriptions. Local subscriptions are limited due to social and economic factors. Journals in developing countries are also facing difficulties in penetrating world markets due to language, methodology, writing skills or mere perception.

"Publishers, distributors, and the intellectual public tend to look to major Western Centers for most intellectual needs, and the products of other Third World Nations are not considered prestigious" (Altbach, 1987, p. 35).

In the modern era, many Third World Countries, including Malaysia, hold the view that to develop they must possess certain knowledge and expertise especially in science and technology. Thus they began importing information in the forms of books and journals besides sending people to further studies in developed countries. As a result, these trained citizens of the Third World countries have been exposed to the knowledge and culture of the developed nations and attentively become consumers of these nation's products.

Coupled with developed nations' policies in helping the Third World countries, manifested in their foreign aid programmes, copyright law, commercial orientation and other policies, the inequalities of knowledge distribution are perpetuated, with more information coming from these countries (Altbach, 1987, p. xvi). English language publications have been distributed and published in almost every nation in the world. Their importance has an impact on the social, economical and political structures of many developing and Third World countries.

As knowledge is distributed by language through writing, the level of literacy plays an important role in the publishing industry. The more people in a particular country can read, the more demand there is for publications, and the industry will thrive. If scholars in
the country support it by supplying articles, subscribing to and reading the journals, then journal publishing activities will develop. Many journals have been discontinued because they have become too expensive to produce due to low numbers of subscriptions, and difficulties in getting articles.

Eventually, many native people who are educated are exposed to the language and culture of their colonizers. As a result, these people may perceive information in other than their colonial language as less prestigious. Feather (2003, p. 34) has noted that there is a social cachet attached to the English language, so scholars may feel no urge to publish information in their native tongue, as plenty of information is available in the colonial mother tongue. For instance, Malaysia, which is lacking in science and technology textbooks, has been translating books from English into Bahasa Melayu (the Malay language or indigenous language), because authors are reluctant to write an original manuscript in the indigenous language. Writing an original manuscript is harder than translating one, and the return from writing is not good either.

Although the market is usually small for journals all over the world, the number of new journals published is increasing. This is because new knowledge and specialism have been developed and researchers use journals to communicate research results. As new knowledge and information change and develop every second, researchers need channels to inform, share, and discuss their findings. These roles have a special importance in Third World countries, where many areas of study are relatively new, or at least not covered in the established scholarly journals published in developed countries (Latch, 1987, p.132).

Since the circulation is small, journal publishers tend to print a small number, and this is not economical in the printing industry, for cost per unit will be high with a small print run. To cover the cost the publisher has to increase the price. The high price will discourage individual subscribers particularly from subscribing. As a result the publisher will increase the price even more to keep in business. This spiral effect does not do any good to either publishers or subscribers. This price increases have been around 10 percent annually for a decade or more (Feather, 2003, p.71). Thus, survival is dependent on the
library subscriptions, as Altbach (1987, p.xi) pointed out: "...it is not an exaggeration to say that scholarly journals could not survive without the libraries--their major purchasers."

The Internet and electronic journals publications

In recent years, electronic dissemination has grown with the use of the Internet and the World Wide Web (WWW). The Internet as a gateway to the global information environment plays a significant role in supporting research activities (Mili, 2000, p.157). The Internet has become a major information vehicle, especially among the scientific community. Authors could disseminate research result themselves, without publishers as mediators. "The emergence of the Internet and increasing computer literacy has resulted in an opportunity for academia to 'reclaim' its research output. One benefit would be that the output of research activity could flow without barriers from author to reader." (Oppenheim et al., 2000, p. 390). Authors now have a choice to publish and disseminate their research results in print or electronic journals. Swan and Brown (2003, p. 29) found that 83% of authors said it is important to publish in print form and 70% in electronic form. Given that the time span of electronic publishing is less than 50 years compared to more than 500 years of traditional printing, the development of electronic publishing is very encouraging.

As a matter of fact, electronic publishing started in the 1960s (Tenopir and King, 2000) in the West. However, it only gained significance in the 1990s, with the development of communication technology and the increase in journal subscription prices. It is believed that electronic journals could resolve some of the problems that exist in the production of paper journals such as the time-consuming process, the proliferation of journals, and the high costs to university and college libraries (Weiner, 2001). Furthermore, when describing why SPARC (The Scholarly Publishing and Academic Resources Coalition) was initiated, Frazier (2000, p.118) noted that the changes in scholarly publishing are due to the malfunctioning of the commercial system, which is too slow and much too
expensive. Frazier (2000, p.118) emphasized that "publishers are restricting the flow of new knowledge by imposing an unreasonable cost burden on information consumers and by unnecessarily restricting reuse of knowledge for research and teaching."

Over the years the printed journals' price has increased manifold, especially those that are published by commercial publishers. "Commercial journals can be as much as 40 times more expensive in cost per page than society published journals and even more expensive when measured in terms of cost per use" (Frazier, 2000, p.119). This situation has created animosity among learned communities. The advent of the communication technology has been employed to solve the unbalanced serial price. "The availability of the Internet and other new publishing technologies has lowered the cost of entering the marketplace" (Frazier, 2000, p.120).

Since the advent of the Internet and World Wide Web (WWW) in the 1990s, many have talked about electronic publishing and electronic journals particularly. It is a tradition that authors/researchers shared their findings with colleagues, and get feedback. In the past they used to handwrite and later print their findings and distribute them among people in the area in order to get opinions for improvement. When technology improved, it is inevitably that these people would be the first to try to use it.

From the literature there are a number of examples of low cost publishing of electronic journals. For instance, Organic Letters and PhysChemComm of SPARC which are electronic journals that compete directly with commercial titles: the projected price for Organic Letters is $2,300 per year compared to the $8,000 subscription for Elsevier's Tetrahedron Letters, PhysChemComm costs $350 per year compared to a commercial title's $8,000, and Evolutionary Ecology Research costs $290 compared to $777 for the journal sold by the giant company Wolters Kluwer (Rambler, 1999).

It has been said that the cost to publish an electronic journal is less (Moahi, 2000, p.342); Tenopir and King (2000, p.372) observe further that the cost of publishing is substantially reduced based on the number of subscribers "It is noted that these savings increase as circulation increases, but the cost of electronic processes are relatively fixed so that net
savings depend on circulation...at 500 subscribers, we estimated savings to be approximately 4 percent, but at 5000 subscribers the savings amounted to nearly 25 percent, and at 50,000 they climbed to over 50 percent.” However, the percentage of saving varies; for example, Tenopir and King (2000, p.372) citing Odlyzko (1995), comment that ‘electronic costs to be 90 percent of paper cost’, The Canadian Journal of Communication is said to have reduced costs by 25 percent after going electronic’, while Hamad (1996) ‘claims that electronic publishing can achieve savings of 75 percent over paper’.

This discrepancy is due to the variation in calculation of other costs such as software, hardware and labour costs.

‘Exclusively electronic journals typically save reproduction and distribution as well as some other costs associated with paper issues, such as non-article processing of issue covers and other information. However, these savings are partially offset by electronic storage, software, and typically higher labor cost’ (Tenopir and King, 2000, p 371).

VandenBos (1998) as cited by Tenopir and King (2000, p.374) indicated that,

“savings achieved by electronic journals are offset by other costs (i.e., equipment, highly skilled staff) and offers the following new law of conservation: ‘for every innovation that result in lower costs in one area of publishing, there is an expense that will equal the savings’”

From the literature (Rambler, 1999; Moahi, 2000; Tenopir & King, 2000) one of the feature of an online journal is that it reduces the cost of journal printing which correlates directly to the journals’ subscription prices, although the percentages of savings by going online varies from one publisher to another. There is however a major difference between societal and commercial publications journal pricing as mentioned by Rambler (1999) earlier. One reason that could be behind this discrepancy is that the commercial publication is profit-oriented compared to societal publication. However this comparison might not always be valid, as there are a lot of differing factors that must be taken into account; for example societal journal publication may be cross-subsidized by their
stakeholders or that there is a different impact factor between societal and commercial journals that influence the pricing.

The advantages of electronic journals

There is much research concerning the usage of electronic journals. Baldwin and Pullinger (2000, p. 233) note the advantages of using electronic journals are: easy and fast access, convenience (desktop access), searchability, instant access, better printouts than photocopies, and the fact that they are more up to date.

Their study has also shown that users do not like the printed medium because of its limited accessibility and availability, and this in turn will affect their access to information (Baldwin and Pullinger 2000, p. 233). To get published in print journal, the author has to wait from several months to several years. In most cases articles will get published in a year. This means that by the time readers read the article it may well be out of date. This is due to constraints in correspondence and communications between author, publisher, and reviewer. In the journal publishing process, articles need to be assessed and edited to ensure their quality. The article may go back and forth several times before it gets published. Printing and distributing the articles, now bundled in journals, is another time-consuming process. In some areas such as science, publication time is crucial. Using the Internet for corresponding with author, editor and/or reviewer, and eventually publishing electronically may reduce the processing time.

The feasibility of electronic journals has been investigated and studies have proven that an electronic journal is superior to print in term of getting comments and feedback from colleagues (McKnight, 1995). Another good point of the electronic journal is that the article is always available on the desktop, while the print version may go missing; one can search for related articles using hypertext links; and instant access is available to the bibliographic details of references (McKnight, 1995).
Thus, electronic publishing provides an alternative for some of the problems in journal publishing activities. There are numerous advantages, which have attracted thousands of articles published online. For instance, there are institutions like Denmark’s National Technical Knowledge Center and Library in Lyngby, which are phasing out print for an entirely electronic distribution, because it is viewed as an efficient, cost-effective model for information delivery (Peek, 1999). There have been a number of initiatives taken by commercial and learned societies in developed countries to publish electronically.

**Barriers to online journal publishing**

Disseminating research activities electronically or digitally offers different advantages that do not exist in print. However, the eagerness to move towards a digital future is not shared by all of the research community. Electronic only journals are still too young, compared to print journals, to have a high reputation. Many institutions seem to be unsure about how to proceed, and they stand aside from the wave of change (Mili, 2000, p.161). Even though much has been said on the advantages of electronic journals, there are also disadvantages that can slow down the impact.

As with any other new inventions, there are concerns regarding electronic publications that hinder their broader acceptance worldwide. Among the factors that slow down the adoption of electronic publishing are, the politics of controlling scholarly communication, the economic benefits to publishers, copyright issues, bandwidth issues, access to the Internet, the lack of skills to write for the web, technology phobia among scholars, the prestige of publication of an online article versus an article on paper, and resistance to changing the old tradition of scholarly publishing that legitimizes the academic disciplines (Vrasidas, 2000).

People still doubt the Internet’s efficiency for communication because they have observed that the technology, especially the Web, is unstable in issues such as permanency and copyright. Other reasons are the reluctance among providers to change
their behaviour towards digital publishing with free access, and people are not ready
enough to start a new way of doing things, as noted by Mili (2000, p. 161):

“...they don’t feel comfortable to be involved within the
effective electronic environment. As noted by many, electronic
publishing creates some ethics concerns mainly for scholars
seeking academic recognition so they must publish their findings
in a formal print journal.”

Other reasons for not publishing in electronic journals were that authors had no
knowledge of any electronic journals in their field, the perceived low status, saw no
reason to change from publishing in paper formats, and that they were too new or not
permanent (McKnight and Price, 1999, p. 566). Citing Budd and Connaway (1997),
McKnight and Price (1999, p. 566), added that authors were probably conservative
because their institutions were conservative in this respect.

Apart from the perception of academics, researchers and institutions towards electronic
publishing, technological know-how and hardware are also important in the adoption of
electronic publishing. However, Mili (2000, p 162) found out that all the organizations
studied, mainly universities in North America, had the know-how needed to disseminate
information in electronic format via the Internet, but they preferred print material, as it
seemed to be enjoyed by many users.

Publishing online has created the opportunity to obtain faster, and sometime spontaneous,
feedback in the form of criticism or even rejection from readers. This is sometimes not
acceptable for some authors, as Weller (2001, p.119) noted, “authors themselves
succumb to the fear of publishing new ideas”. Hence they might publish in less open
publications, or delay publication.

The Internet has made it possible for anyone to post information, and people are trying as
many ways of doing this as they can invent (Berry, 2000, p. 37). This information is
sometimes reviewed, but sometimes is not, for example in the case of self-publishing.
This entails a perception that information posted online is inferior compared to print.
Moahi (2002, p. 347) has cited Tinerella (1999) as stating that “many scholars, writers and university faculty are reluctant to hold electronic publications in the same esteem as their print equivalent”. Electronic journals are widely perceived as having a lower status than paper journals (Nelson, 2000, p. 31). This might be due to the fact that the digital document is easily copied and manipulated, which may increase plagiarism (Moahi, 2002, p. 347), and infringement of intellectual property or copyright laws.

Archiving material in electronic form or online raises a lot of questions and uncertainties, which up until this point have found no absolute solution. Questions such as who would own and maintain the online archive, what would happen if disaster such as fire struck the place (server), or if the publisher is not functioning or goes bankrupt, or what would happen if the subscriber stops the subscription, are among the problems that needed attention. At this moment there is no definite answer to all the problems, but there are steps taken in certain quarters towards easing if not solving the problems that had been raised.

It is clear that journal publication activities are scholarly endeavours that are undertaken by academics and researchers for various reasons. Chief among them is the dissemination of knowledge among their peers as a forum to get feedback on research that has been undertaken. These findings are published in scholarly journals, both in the print or digital medium. There has been discussion about the reason and inclination to publish in either or both of the media among scholars. These inclinations are related to the attitudes of the scholars and researchers themselves. It must be pointed out that attitude is one of the reasons behind the inclination to adopt one medium over the other. Next is the discussion on what is attitude, and how attitudes change.

Attitude and attitude change

As a simple term, attitude refers to a mental position with regard to a fact or state; a feeling or emotion toward a fact or state (Merriam-Webster’s Online Dictionary).
Attitude has several definitions, due to the tremendous wealth of literature and also variation in approaches and schools of thought within social psychology (Halloran, 1967, p. 15). For instance, Allport, a psychologist (cited in Triandis, 1971, p. 2), defines attitude as “a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual’s response to all objects and situations with which it is related”; Doob, also a psychologist (1967, p.43), defines attitude as “an implicit, drive producing response considered socially significant in the individual’s society”; Thurstone, a psychometrician (1967, p.14), defines attitude as “the affect for or against a psychological object”; and Katz, also a psychologist (Katz, 1967, p.457), suggested that attitude is “the predisposition of the individual to evaluate some symbol or object or aspect of his world in a favorable or unfavorable manner”, to name a few.

Although definitions of attitude are plentiful, the central ideas are that “attitude is an idea charged with emotion which predisposes a class of actions to a particular class of social situations” (Triandis, 1971, p.2). Thus, Triandis had suggested that attitude has three components: (a) a cognitive component that can be inferred from consistencies in responses to stimuli, (b) an affective component that a person has a positive or negative affect towards objects, event or people around them, and (c) a behavioral component that is an inclination to action, such as using, buying or admiring.

Triandis (1971, p. 3) discusses further that the cognitive category is the minimum condition for having an attitude. Then, the more pleasant the object, event, or people, the greater the affection attached to the category and, finally, the person will use, possess or admire the category. Although the three components are closely related, there are circumstances that can create inconsistency between them (Triandis, 1971, p. 3). For example, one who has lost huge amounts of data due to power failure may have negative affective attitudes towards computers, but not using them can slow down his work. Thus he may have a positive behavioural component, which is the inclination to use the computer. In another instance one has a positive attitude towards the computer because it would ease his work, but has not been using it because he has no money to buy the
According to Taylor et al. (1994, p. 171) "sometimes behavior is controlled by attitudes and sometimes it is not."

The majority of scholars who have studied attitude agree that people's attitude is learned or acquired from objects or events around them (Halloran, 1967; Fishbein 1967; Baron 1989). That is why different people in different societies will react differently to the same object, or event. It is acquired; an attitude can be changed through persuasion or reinforcement (Baron, 1989, p.479).

There are many ways to change attitude (Triandis, 1971, p. 142). Attitude can be changed by new information, either through people or through mass media, by experience, by forcing a person to behave in a way that is inconsistent with the existing attitude, by a 'fait accompli' where attitude changes to become consistent with the implication of an event, through psychotherapy, by providing positive reinforcement, by presenting an anxiety-reducing stimulus for negative attitude, and so on (Triandis, 1971, p. 142-144).

However, to change attitude is not simple. There are various factors to consider that can affect the changes, such as source of attitude change, the message and the nature of the audience (Triandis, 1971, p. 146). Halloran (1967, p. 59) concludes that:

"...it is possible to change attitudes, in order to produce change a suggestion for change must be received and accepted; reception and acceptance are more likely to occur where the suggestion meets existing personality needs or drives; the suggestion is more likely to be accepted if (a) it is in harmony with valued group norms and loyalties, (b) the source of the message is perceived trustworthy or expert, (c) the message follows certain rules of 'rhetoric' regarding order of presentation, organization of content, nature of appeal, etc., a suggestion carried by mass media plus face-to-face reinforcement is more likely to be accepted than a suggestion carried by either one of these alone, other things being equal; and change in attitude is more likely to occur if the suggestion is accompanied by change in other factors underlying belief and attitude".

48
Based on previous research findings, the attitude-changing process is never straightforward because there are many factors involved. This situation has created confusion as to deciding what factors really have an impact on the changing of attitude. For example, many scholars agreed that credibility of the communicator has an influence on attitude change (Halloran, 1967, p.61). Related to this, Sherif and Hovland (1967, p.67) suggest:

"a primary factor affecting the influence of a persuasive communication upon attitude and opinion change is the degree of discrepancy between the position of the communication and the recipient's attitude or opinion"

However, there are also factors that make attitude resistant to change. For instance, an immunization effect or inoculation presents a two-sided presentation, where the person being exposed to material that contained a counter-argument can actually be stimulated to seek material to support his position to resist attempted persuasion (McGuire, 1967, p.296-311).

Measuring attitude

As the definition of attitude is wide, varied and ambiguous, so the task to measure attitude is not simple and has never been quite straightforward. As the concept of attitude is abstract, we can only "see order and consistency in what people say, think, and do" (Henerson et al., 1987, p.11) in order to understand certain behaviours and make prediction about future behaviours.

"An attitude is not something we can examine and measure in the same way we can examine the cells of a person's skin or measure the rate of her heartbeat. We can only infer that a person has attitudes by her words and actions" (Henerson et al., 1987, p.11-12).
Since we can only infer attitude from the behaviour shown or words that one says, many of the things that we want to know may not be actually known at all. However, “though the measures you use must be sensitive to the attitudes you are attempting to measure, they will not need the precision of measurement that is essential for making predictions about individuals” (Henerson et al., 1987, p. 13).

There are several approaches or instruments that can be use to measure attitude. Some are better in certain conditions compared to others. Some major methods to study attitude according to Hollander (1971, p 90-110) are using observation, field study, questionnaire survey, field experimentation, and laboratory experimentation. These methods may use instruments such as in depth interview, projective techniques, attitude scales and content analysis.

**Attitude towards technology**

Attitude plays an important role in the acceptance (behaviour component) of people or society towards everything in life, including technology or systems. For example, in describing scientists’ behaviour towards communication systems where scientists employ and process information for use by the scientific community, Garvey (1979, p. 13) notes that attitudes toward and experience with a system influence its utilization.

In another study, Bill (1997) suggested that technology acceptance in organizations is influenced by the individual’s attitude toward technology. Individual attitudes are in turn influenced by many factors, stemming from the individual’s knowledge and values, organizational culture and social information processing. People from different backgrounds have different beliefs and value systems, which contribute to different perceptions towards technology.

The availability of technology is important for the adoption of technology. In online publishing, the availability of a computer and access to the Internet are crucial. However,
social factors such as culture and language also play an important role. Bazar and Boalch (1997) discussed the factors influencing the diffusion of the Internet within a country. The factors “include infrastructure, government policies and regulations, economic development, culture, language, and IT penetration in the country” (Bazar and Boalch, 1997).

Successful adoption of the Internet in developing countries requires adequate infrastructure for the technology to be accessible to the public. This will make the initial investment for the introduction, and enable usage costs to be kept low. In this instance, it is assumed the adoption rate is high. On the other hand, in countries where there is no or minimal infrastructure, the initial investment will be high and this will negatively affect the adoption rate. Government plays an important role in encouraging or hindering the diffusion. If the government enforces regulations on trans-border data flow, the Internet will not be so attractive to the people, thus limiting the diffusion.

Another factor that influences the diffusion of Internet use is economic development, which will have a direct impact on the ability of the countries to invest in the infrastructure. Individuals and organizations in countries with lower economic development tend to have low levels of income and hence low demand for Internet services. This situation extends to the degree of IT penetration. The assumption was the lower the IT penetration, the lower the diffusion of Internet adoption.

As electronic publishing activities use Internet technology, the adoption of computers and Internet usage must be high. To encourage people to use the technology, it must be made available in the country and backed by strong support from the government. This is especially true in the developing countries, where no commercial or private organizations will single-handedly provide access, due to high capital cost and uncertain returns. The evolution from print to digital involves changes. Change involves various factors, both internally and externally. If the perception towards publishing in electronic journals is positive, then the rate of adopting the method will be higher. The perception is influenced by the availability of the technology and the skills among users. People's
attitude may change if factors supporting changes are available and the user will change if it is perceived as better, or having advantages to the user.

**Attitude theories on technology acceptance**

*Davis's (1989) Technology Acceptance Model*

The attitude of a person toward technology can be inferred by the acceptance of the technology. To understand people’s acceptance of technology, Davis et al. (1989) introduced the technology acceptance model (TAM). In explaining acceptance behaviour towards computer technology, Davis posits two particular beliefs, perceived usefulness and perceived ease of use. Perceived usefulness is defined “as the prospective user’s subjective probability that using a specific application system will increase his or her job performance within an organizational context”, while perceived ease of use “refers to the degree to which the prospective user expects the target system to be free of effort” (Davis et al., 1989, p. 985).

Davis further explains that computer usage is determined by behavioural intention to use, which is jointly determined by the person’s attitude toward using the system and its perceived usefulness. The attitude toward using-behavioural intention to use relationship suggests that “all else being equal, people form intentions to perform behaviours toward which they have positive affect” whereas the perceived usefulness-behavioural intention to use relationship is “based on the idea that within organizational settings, people form intentions toward behaviors they believe will increase their job performance, over and above whatever positive or negative feelings may be evoked toward the behavior per se” (Davis et al., 1989, p. 986).
Rogers' Diffusion of Innovation Theory and relation to adoption attitude

To understand why some people have different reactions to the same technology, Rogers (1995) introduced five categories of adopters based on their acceptance towards innovation. They are innovators, early adopters, early majority, late majority and laggards. According to Rogers (1995, p.264-265) innovators are persons who have the ability to understand and apply complex technical knowledge, are able to cope with a high degree of uncertainty about an innovation at the time of adoption, are willing to accept setbacks when a new idea proves unsuccessful, and have control of substantial financial resources to be able to absorb the possible loss from unprofitable innovation.

Early adopters are persons who have the greatest degree of opinion leadership. Other people look to them for advice and information about innovation. They serve as a role model for other members in a social system. The early adopters reduce uncertainty about a new innovation by adopting it, and then convey subjective evaluation. The next category on the continuum is the early majority. This is the most numerous of the adopter categories. They adopt new ideas before the average member of the system, and adopt the innovation intentionally.

The next category is the late majority. Like the early majority, the late majority composes about one-third of the members of the system. They adopt the innovation after the average members of the system, from economic necessity or pressure from peers. The late majority approach innovation suspiciously and cautiously, and they usually have a relative lack of resources. Thus, they will only adopt an innovation if they feel it is safe.

The last category of adopter defined by Rogers (1995) is laggards, the last in the social system to adopt an innovation. They are suspicious of innovations and their decision process to adopt an innovation is long. They must be very certain that the new idea will not fail before adopting an innovation, since their resources are limited. The adopter's categories of Rogers are the result of attitude change among people in the society. Some people change their attitude to accept innovation faster than the other.
Hofstede's Cultural Dimension

Attitude and attitude change could also be influenced by culture. As electronic publishing activities are performed in the working environment in organizations, culture exists at national and organizational level, it is important that we look into the characteristics of organizational culture. For this purpose, Hofstede's (1994, p. 14) four dimensions of organizational culture; power distance, collectivism versus individualism, femininity versus masculinity, and uncertainty avoidance is used. The brief description of the four dimensions is as follows;

Power distance—is defined as the extent to which the less powerful members of institutions and organizations within the country expect and accept that power is distributed unequally.

Individualism versus collectivism—individualism pertains to societies in which the ties between individuals are loose: everyone is expected to look after himself or herself and his or her immediate family. Collectivism as opposite to individualism pertains to societies in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty.

Masculinity versus femininity—masculinity pertains to societies in which social gender roles are clearly distinct (i.e. men are supposed to be assertive, tough, and focused on material success, whereas women are supposed to be more modest, tender, and concerned with the quality of life); femininity pertains to societies in which social gender roles overlap (i.e., both men and women are supposed to be modest, tender, and concerned with the quality of life). Masculine cultures tend to be ambitious and need to excel. Employees are emphasized to be high achievers. On the other hand feminine cultures consider quality of life and helping others as important. Working is to earn money for living.
Uncertainty avoidance—is defined as the extent to which the members of a culture feel threatened by uncertain or unknown situations. This feeling is, among other things, expressed through nervous stress and a need for predictability—a need for written and unwritten rules.

Based on a study by Hofstede (1994), Malaysia falls into the category of having a large power distance, low individualism, moderate masculinity and weak uncertainty avoidance. In large power distance countries, subordinates are dependent on bosses. They respond by either preferring such dependence in the form of an autocratic boss, or rejecting it entirely. In large power distance countries, the emotional distance between subordinates and bosses is large, and subordinates are unlikely to contradict the bosses openly. Hofstede (1994, p.54) also found an inverse connection between power distance index and individualism, that large power distance countries are likely to have low individualism. Thus people in these countries are more dependent on power figures and groups. Any decision made is not an individual decision but collective.

To identify any country is having masculine or feminine cultural dimension Hofstede (1994, p. 81-82) has drawn a guide. A masculine country has a strong attachment with: having an opportunity for high earnings; getting recognition when doing a good job; having an opportunity for advancement to higher level jobs; and having challenging work to do. Whereas in a feminine country, the societies valued: having a good working relationship with direct superiors; working with people who cooperate well with one another; living in an area desirable to the person and the family; and having the security to be able to work for the company as long as a person wants. Since Malaysia has a moderate masculinity index, the society does not have strong attributes attached to any masculinity-femininity index.

The fourth cultural dimension identified by Hofstede is uncertainty avoidance. In countries that are categorized as having weak uncertainty avoidance, such as Malaysia, the society is not supposed to show their aggression or emotion, it has to be internalized
and stress cannot be released in activity (Hofstede, 1994, p.115). The impression given by the society that has weak uncertainty avoidance is quiet, easy-going, indolent, controlled, and lazy (Hofstede, 1994, p.115). However this interpretation is dependent on which culture the observer is accustomed to. In weak uncertainty avoidance societies, people are able to work hard if there is a need for it, but they are not driven by an inner urge toward constant activity and they like to relax (Hofstede, 1994, p.121).

Research framework

Davis' technology acceptance model (TAM), which uses perceived usefulness and perceived ease of use as having a predictive power for technology adoption, is not strong enough to predict the use of technology in online journal publishing in Malaysia. This is due to the complexity of online journal publishing activity in general and specifically in Malaysia. An author may or may not be involved in all stages in publishing activities to experience the usefulness and ease of use of the whole online publishing technology, as compared to one particular technology studied for technology adoption, such as Internet usage, e-mail usage, web-based learning, or cellular telephone adoption.

In this study, several factors that are believed to be contributing factors to adopting online publishing are investigated. Based on previous studies, various constructs will be used and assumed as having an influence on online publishing as a medium to disseminate research results. As the study is exploratory in nature, factors of demography, availability and experience in technology, publishing trend, and support from organizations were assumed to have an influence on the promotion and propagation of online publishing in Malaysia.

Demographically, the background of researchers such as age, gender, ethnicity, qualification, designation and field of expertise are assumed to have an influence on adoption of online journal publishing.
As the availability and the experience of using the technology are considered important, in that without technology, online publishing could not be materialized, they are thought to have an influence on adoption of online journal publishing.

Publishing online is only one medium to disseminate results. One must have materials or articles to be published. In this case researchers must first write the articles and then publish them, either in print or in the online medium. Therefore, publishing trends among researchers must be taken into consideration as a factor influencing online publishing among researchers.

In a developing country such as Malaysia, government policy and regulation become major factors that will determine the existence of technology. Without the government’s participation in bringing the technology into the country and providing the infrastructure and support, information technology, or in this particular case electronic publishing technology, will not be available. Thus, if the government or the organizations are in favour of online journal publishing, there will be support in terms of infrastructure development, the relevant technological training, and eventually the recognition of technology-related activity. All these influencing factors are presented in Figure 3.1, outlining the framework for the research.
MODERATING FACTORS
Cultural Dimension (based on Hofstede, 1994)

- Demography
  - Age, Gender, Ethnicity, Place of work, Qualification, Current job, Duration in current job, Field of expertise
- Technology
  - Technology availability/accessibility
  - Experience in using IT
- Publishing trend
- Support from organization
- Adoption of online publishing among local researchers
  (Based on Davis’ TAM (1989) and Roger’s Diffusion of Innovation (2003) theories)

Figure 3.1: The research framework

The objective of the research framework is to investigate the adoption of online journal publishing among local researchers. Davis’s TAM construct on perceived usefulness and perceived ease of use informed the framework design on technology adoption in terms of local access to Internet-based technology. In addition, Rogers’ Diffusion of Innovation categorization was considered against the expected inclination of the local research population on whether they are laggards or innovators. The research also considered four aspects that are assumed to influence the adoption of online journals, that is; Demography, Technology, Publishing Trend and Support from Organization.

As there has never been any research done locally on the subject of online journal publishing adoption, the demographic information is vital in that it would provide a working background of the local research population. In terms of the technological
availability, the research seeks to find if the existence (or non existence) of technology has any effect on adoption of online journal publishing among local researchers. Publishing activities are assumed to have an impact on their inclination whether or not to adopt online journal publishing as it is not an established norm within the Malaysian society. Scholarly publishing activities in particular are being compelled by institutions on individual researchers in order to gain recognition. Technology adoption requires expensive investment in infrastructures as well as a clear adoption policy. Support from organization is an important aspect in technological adoption in developing countries. All these aspects are contrasted against the moderating factors of cultural dimension as proposed by Hofstede (1994).

Moderating factors are included in the research framework because of the theories own shortcomings. For example, Davis’s TAM dual construct has very limited predictability. Another reason for the inclusion of moderating factors is that it could enhance the framework’s explanatory powers (Sun & Zhang, 2006).

Conclusion

As researchers especially in the West are increasingly exposed in using online journals as a medium to disseminate their research results, the similar situation in Malaysia is explored. This study is limited to four factors that are assumed to have an influence on adoption of online journal publishing, namely demography, technology, publishing trend and support from management. These four factors are further moderated by the cultural dimension factors.

To understand why people have accepted a certain technology involves many factors that basically can be divided into internal factors and external factors. To accept any technology, it must be seen as easy to access, and have a lot of benefits (Davis et al., 1989).
However, before the people can have access to the technology it must be brought into the country. As such, this involves government policies. The policy will be manifested in the infrastructure provided by the government, education and training facilities and the budget allotment to support the technology usage and its development. In the case of Malaysia, the government had brought in the information technology *in toto* through top-down policy.

Thus far, this chapter has discusses the theories underlying adoption of online journal publishing among researchers. Based on the theories, the framework of the research is designed to reflect the factors that might contribute to Malaysian scholars’ adoption of online journal publishing. The next chapter shall discuss considerations of the corresponding research methodology and how this relates to the research framework.
Chapter 4

Methodology

Introduction

In the previous chapter, theories on technology acceptance have been discussed in relation to online journal publishing adoption among researchers in Malaysia. This point to the need for an appropriate methodological approach in order to investigate local researchers' attitude towards online journal publishing. This chapter will identify the methodological considerations that underpin the research methods selected.

For years, local research results were published in various types of publications such as journals, conference proceedings, monographs, reports and others that exist chiefly in the printed version, both internationally and locally. Publishing in online journals is another way of disseminating research results. While it needs different equipment and skills, it also needs different types of motivation and mind-set before engaging in the activities. The adoption of inventions is determined by various factors that include both technology and human issues. As online journal publishing activities could be considered a new invention in Malaysia, this study seeks to explore factors assumed as relevant to the adoption and development of online publishing activities in the local public higher learning and research institutions.
Research population

This study used individual people as unit of analysis, and in this case they are academics from the public universities and researchers in all science and non-science fields from the public research institutes in Malaysia. There were 11 public universities in Malaysia in 2004. However, in recent years another nine universities college have been upgraded to become public universities.

According to the Malaysian Links, there are 13 research and development entities, including three private ones (http://www.lib.usm.my/malinks.html). In 2000 there were 14,010 academics in the 11 public universities in Malaysia (Department of Statistics, 2001. p. 154-155). While the number of researchers who work in the government research institutes is smaller than the number of academics, it was indicated that there were 15,022 researchers in Malaysia (MASTIC, 2000). This number actually includes academics that are registered with MASTIC as researchers.

Research design

The study is quantitative by design, although a qualitative approach is also utilized in order to understand the management side of the research institutions. The appreciation of the differences between quantitative and qualitative research strategies would assist a researcher in selecting the appropriate general orientation towards undertaking social research. In this respect Bryman (2000, p.21) notes that

"...on the face of it, there would seem to be little to the quantitative/qualitative distinction other than the fact that quantitative researcher's employ measurements and qualitative researchers do not.. and while it is useful to contrast the two research strategies, it is necessary to be careful about hammering a wedge between them too deeply”.

Basically, the general orientation is that for quantitative research strategies, the emphasis would be on quantification in the collection and analysis of data. In contrast, the
qualitative research strategy emphasises words rather than quantification in the collection and analysis of data. Following each strategy would mean applying the corresponding method.

As such, the study used two types of research instrument—a self-administered questionnaire, which is a quantitative approach, and semi-structured interview questions, which are of a qualitative nature.

Research samples

The sample used in this study was drawn from the population of researchers throughout the country including Sabah and Sarawak. They were academics in public universities and researchers in the public research institutes in Malaysia. The e-mail addresses of the sample were needed to distribute the self-administered questionnaire through the Internet. The e-mail addresses were obtained from the listings given by the organizations. Several organizations granted permission to search the e-mail addresses of their staff through their official websites. One organization agreed to send the questionnaire internally to 20 respondents that they had selected.

The sampling was of non-probability type, where samples were not taken from the population of all the public organizations being studied. This was because there was no list of names and e-mail addresses of the population in the public domain. Organizations had to be contacted in order to get permission to conduct the survey and provide the names and e-mail addresses of their staff. Some of the public research institutes did not respond to the request or agree to be included in the survey. After several attempts to get permission from them had failed, the decision was made to drop them from the survey. While some organizations granted access to their organizations' websites to retrieve the e-mail addresses, some organizations provided limited e-mail addresses. However, all the major and significant research institutes in Malaysia were included in the survey. Only a few public university colleges were included in the survey because they were very new
and their main objective was teaching. The samples were taken from all the 11 public universities in Malaysia, two public university colleges, and seven public research institutes.

**Survey questionnaire approach**

Surveys are suitable for studies that have individual people as the unit of analysis and for collecting original data for describing a population that is too large to observe directly (Babbie, 1995, p.257). According to Bryman, (2001, p.41), survey design or cross-section design “entails the collection of data on more than one case (usually quite a lot more than one) and at a single point of time in order to collect a body of quantitative or quantifiable data in connection with two or more variables (usually many more than two), which are then examined to detect patterns of association”.

A survey is also appropriate for both descriptive and explanatory studies because it can provide detailed descriptions of a population (Singleton et al., 1988, p.239). Surveys are “useful in describing the characteristics of large populations” (Babbie, 1995, p.273) and can make “generalizations about a large number of people and their surroundings by selecting and studying the subset of the group” (Marans, 1987, p.42). Thus, by selecting the samples carefully we can make generalizations for the rest of the population. Since the questions in a questionnaire are standard, and numerical values are assigned to people’s attitude, behaviours, and environmental conditions, it is possible to make a uniform analysis and interpretation of the information.

Another good point about a survey is that it can answer question about “who”, “how”, and “what” (Marans, 1987, p. 44). According to Marans, the “who” questions will provide factual information about a particular informant such as age, marital status and so on, which is important in describing the population in very precise terms, and explain variations in behaviour or feeling of the population. “How” and “what” questions can
explain what goes on in people’s minds in terms of how they feel about a particular environment, and their level of understanding about a place, situation, or event.

As data were gathered from a large heterogeneous population of public higher learning and research institutions in Malaysia, and the purpose of the study was to understand the nature of the online publishing activities among researchers, this study is interested in variations of the unit of analysis, at a single point of time, to establish variation between cases, and to examine the relationship between variables. Based on these criteria, a survey was seen as the most appropriate means of data collection for this study.

Research instrument

The study used two types of research instruments—a self-administered questionnaire and semi-structured interview questions. The self-administered questionnaire was based on the previous surveys by ALPSP (The Association of Learned and Professional Society Publishers), of “what authors want from electronic publishing” (ALPSP, 1999). Permission to use the instruments was granted. However, in order to achieve the intended objectives, some modifications were carried out.

The self-administered questionnaires by ALPSP were widely distributed beyond the United Kingdom where English may not be the mother tongue. It is therefore assumed that the modified ALPSP questionnaire is suitable to be administered in Malaysia in its original language. The English language in Malaysia is a second language and is used widely in the public and private sectors. Due to the nature of their work, those who serve at universities and research institutes in Malaysia are assumed to understand English quite well. Furthermore, to translate some of the questions may create confusion as meanings could get lost in translation and may hamper comprehension. Translating the questionnaire into the indigenous language may not totally solve the contextual understanding problem. As such, it was assumed that disseminating the self-administered questionnaires in English is justifiable.
The pilot study

Before the questionnaire was distributed to the samples, it was piloted. In the first stage of piloting the questionnaires, they were sent to five Malaysian academics who were studying at Loughborough University. The pilot was conducted "to determine whether the instrument serves the purposes for which it was designed or whether further revision is needed" (Singleton et al., 1988, p. 253).

All the feedback and comments from the pilot were considered in constructing the final questionnaire. For instance, the concept of an electronic preprint archive or repository was not familiar to the majority of the sample. Thus the terminology was defined and placed at the top of the questionnaire. For those who need more information about it, the address of the site was also provided (http://www.openarchives.org/documents/FAQ.html).

A few respondents commented on question number 17, saying it was too long (consisted of statements "a" to "x") to see the scales, which appeared at the top, and that they had to scroll up and down to answer. To overcome this problem, the Likert scale was inserted again in the middle, before statement "n".

In the second stage of piloting, questionnaires were sent to ten academics in one public university in Malaysia by e-mail. This time, the feedback was on the technicalities of the questionnaires. For instance, a few answer buttons did not function well, and there were typographical errors. Question 5 was modified from "country" where respondents obtained their degrees to "institution".

The self-administered questionnaires

The questionnaire consisted of 25 questions divided into three parts, with mixed open-ended and closed-ended questions. Respondents were expected to answer by filling the
blanks, choosing the appropriate answer, or choosing the appropriate Likert scale. At the bottom of the questionnaire, respondents were asked to give comments on electronic publishing in the specified space. The questionnaire is shown in Appendix I.

In Part 1, the questions were mainly on demography, such as age, gender, the current job, the field of expertise, knowledge and involvement in online activities. To suit the interests of the study, a few questions were added, such as ethnic background, institutions where respondents acquired their degrees, access to technology and involvement in online activities.

Part 2 consisted of ten questions. The questions asked were on journal publishing activities. The majority of the questions were taken from the two ALPSP surveys with some modifications, that is, adding three statements (d, e, and f) for question 13. Two questions (15 and 16) concerning authorship were also added.

In Part 3, two questions were a modification from the ALPSP survey to suit the interests of the study. The two questions were on factors persuading and hindering online publishing. This part was concerned with the support that could have an impact on the online journal publishing activities.

The questionnaire was developed using Microsoft Front Page version 2003 using the ‘Form’ style template. All the coding for the questionnaire items was in HTML format. Data was collected in the form of text. The questionnaires and the data were stored in the server (Loughborough University’s server). The questionnaire was made available to be downloaded by the participants via a hyperlink embedded in individual emails. The link address was http://staff.lboro.ac.uk/~lsjz2/questionnaire.htm

The distribution of the survey questionnaire

There are various ways to distribute self-administered questionnaires. The most popular is by sending mail using envelopes and stamps, while others may distribute the questionnaires by hand. However, with the advent of information technology, many
researchers are now conducting surveys using the Internet. "Self-administered questionnaires are now poised to benefit enormously from information age technologies" and "possibilities for electronic delivery is increasing rapidly" (Dillman, 2000, p. 7).

Furthermore, government organizations such as public universities and government research institutes generally have Internet addresses and access. For these kinds of populations, e-mail and Web surveys may have only minor coverage problems (Dillman, 2000, p.356). Since all public universities and research institutes in Malaysia are networked, it seems appropriate to choose e-mail to distribute the questionnaires.

Another reason to choose Internet delivery is because the study itself is discussing online publishing activities. People are assumed to be familiar with the technology in order to have an idea on the topic. Hence, in view of the topic of the study, it was appropriate to distribute the questionnaires by the Internet.

Since the self-administered questionnaires were distributed by the Internet, the e-mail addresses of the samples were required. Many of the organizations have organizational web sites that contain e-mail addresses of their employees. However, some of the organizations do not put their staff's e-mail addresses on the web.

The letter of intention to conduct the survey on their staff was drafted and sent to all the public universities, university colleges and research institutes through the Internet. The majority of the organizations gave positive feedback within a week. However, some organizations needed several reminder letters and telephone calls before giving an answer. A number of organizations needed a hard copy of the letter in order to act on the matter.

Apart from asking permission to conduct the study, the letter also requested the e-mail addresses of their staff, who in these cases are academics or researchers. As a result, some organizations attached their staff's e-mail addresses, while some organizations gave permission to access their organizational web sites and obtain the e-mail addresses. One
research institute agreed to appoint an officer who would be responsible for the
distribution of the questionnaire internally.

As discussed before, the majority of the organizations contacted have given their
assistance. The questionnaires were then sent to all e-mail addresses obtained from the
lists provided by organizations. For the organizations that had not provided the e-mail
lists, the addresses had to be obtained from the web sites. The majority of the
organizations that did not give their e-mail address lists were the public universities and
university colleges. As such, the first step was to visit the organization’s web sites for
various faculties. In each faculty there are usually a number of departments. From the
departmental web sites the e-mail addresses for the academic staff were obtained. The e-
mail addresses were collected from various departments and faculties of public
universities and university colleges throughout Malaysia.

Only e-mail addresses of lecturers, professors and associate professors were obtained.
Tutors or assistant lecturers were not included in the study, as they usually help the
lecturers in teaching and research, and are assumed to be less active in research and
publishing activities themselves.

The Internet-based questionnaires were sent from early March 2004 to the middle of May
2004. The mechanics of the questionnaires were as follows; firstly an individual e-mail
was sent to the researchers’ e-mail address, outlining the objective of the questionnaire as
well as the hyperlink to the Internet-based questionnaire using the HTML format. If the
recipient of the e-mail was interested to participate, he or she would follow the hyperlink
to download and answer the questionnaire. The questionnaire must be completed at one
sitting. The respondent would click on their preferred answer on the webpage itself. Once
completed, the completed webpage questionnaire was sent back as an e-mail. However,
this e-mail would not reveal the details of the respondent-senders which ensured the
confidence of the responses. It must be pointed out that the participation in the
research was totally voluntary on part of the e-mail recipients.
There were cases where the faculties’ or departments’ web sites could not be accessed. In order to obtain large number of samples, all lecturers with e-mail addresses were included in the survey. This is possible for organizations that permit free access to their web sites. Therefore, access to the web sites provided a larger sample size for the research. According to Dillman (2000, p.9), larger sample size will lead to larger precision.

Although the questionnaires were piloted and amendments made accordingly to refine the instruments further, it does not guarantee higher responses from the participants. Other types of constraints could be present that limited online access such as connectivity, readability, and attitude (Thuong, T.L. & Koh, A.C., 2002). As a low response rate was expected a bigger sample was needed. In addition, bounced e-mails regularly occurred. It was estimated that the percentage of bounced e-mails was about 20%. After several attempts, the process of sending back the bounced e-mails was stopped.

After several levels of refinement, it was decided that this study would not concentrate on the university colleges, which are relatively new, since their main objectives are not concentrated on research but on teaching and learning. The main business of these university colleges is offering degrees at bachelor and diploma core levels. Eventually, the self-administered questionnaires were sent to 6,867 academics in the public universities and 1,106 researchers in the research institutes in Malaysia.
<table>
<thead>
<tr>
<th>No.</th>
<th>Organization</th>
<th>No. of questionnaires sent</th>
<th>Address availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>University of Science Malaysia</td>
<td>1103</td>
<td>Provided by the Institution</td>
</tr>
<tr>
<td>2.</td>
<td>University Malaysia Sabah</td>
<td>217</td>
<td>Web search</td>
</tr>
<tr>
<td>3.</td>
<td>National College University Technology (university college)</td>
<td>87</td>
<td>Web search</td>
</tr>
<tr>
<td>4.</td>
<td>Islamic College University Malaysia (university college)</td>
<td>85</td>
<td>Web search</td>
</tr>
<tr>
<td>5.</td>
<td>University of Education Sultan Idris</td>
<td>163</td>
<td>Web search</td>
</tr>
<tr>
<td>6</td>
<td>International Islamic University Malaysia</td>
<td>319</td>
<td>Web search</td>
</tr>
<tr>
<td>7</td>
<td>University of Technology Malaysia</td>
<td>821</td>
<td>Web search</td>
</tr>
<tr>
<td>8</td>
<td>University Institute Technology MARA*</td>
<td>765</td>
<td>Provided by the Institution</td>
</tr>
<tr>
<td>9</td>
<td>National University Malaysia</td>
<td>517</td>
<td>Web</td>
</tr>
<tr>
<td>10</td>
<td>University Malaysia Sarawak</td>
<td>237</td>
<td>Web</td>
</tr>
<tr>
<td>11</td>
<td>University of Malaya</td>
<td>813</td>
<td>Provided by the Institution</td>
</tr>
<tr>
<td>12</td>
<td>University Putra Malaysia</td>
<td>1209</td>
<td>Web</td>
</tr>
<tr>
<td>13</td>
<td>University Utara Malaysia</td>
<td>531</td>
<td>Web</td>
</tr>
<tr>
<td>14</td>
<td>MARDI (Malaysian Agricultural Research and Development Institute)</td>
<td>412</td>
<td>Provided by the Institution</td>
</tr>
<tr>
<td>15</td>
<td>SIRIM (Standard and Industrial Research Institute of Malaysia)</td>
<td>36</td>
<td>Provided by the Institution</td>
</tr>
<tr>
<td>16</td>
<td>MPOB (Malaysia Palm Oil Board)</td>
<td>60</td>
<td>Provided by the Institution</td>
</tr>
<tr>
<td>17</td>
<td>RRI (Rubber Research Institute)</td>
<td>134</td>
<td>Provided by the Institution</td>
</tr>
<tr>
<td>18</td>
<td>FRIM (Forest Research Institute of Malaysia)</td>
<td>354</td>
<td>Provided by the Institution</td>
</tr>
<tr>
<td>19</td>
<td>MINT (Malaysian Institute for Nuclear Technology Research)</td>
<td>20</td>
<td>Internally distributed</td>
</tr>
<tr>
<td>20</td>
<td>IMR (Institute of Medical Research)</td>
<td>90</td>
<td>Provided by the Institution</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>7,973</td>
<td></td>
</tr>
</tbody>
</table>

(* MARA is the acronym of 'Majlis Amanah Rakyat' which literally means Public Trust Board. It was established on 1st March 1966. The objectives were to encourage, teach, train, and to help Bumiputra (indigenous people) especially in the rural areas in business and manufacturing.)
Feedback from respondents

The responses were at their peak between March and April 2004. Sending questionnaires by e-mail provides a challenge. E-mails are prone to bounce, respondents are not keen to respond, and there are other technological maladies. There were a large number of bounced e-mails due to number of reasons (refer to Table 4.2). To achieve a high response rate, several attempts were made to send back to the bounced addresses.

There were people who sent e-mails saying that they would act on the questionnaire later when they were less busy. Several respondents said that they were not able to answer due to the designation they currently held, for instance they were researchers by occupation but are currently doing administrative work. Eventually, 400 respondents answered the questionnaires (approximately 5% of total questionnaires sent out). However, many of the responses were rejected, as many had not completed all the sections. According to Kamarul Zaman Ahmad (2003), it is quite common to expect questionnaire surveys conducted locally to have very low response rate. He cited 4% as the average response rate for postal survey. A study on crisis management by Monash University Malaysia targeting 865 first and second board-listed companies of the Kuala Lumpur Stock Exchange reports that “in last year survey (2007), only 1.5% of the companies listed on the main and second board responded while this year, the figure has gone up to 5% (Monash Newsline, 2009)

With regard to web survey application, an online survey can achieve a comparable response rate to a questionnaire delivered by surface mail (Kaplowitz, et al., 2004). As such, the percentage of responses (5%) is considered acceptable for a web-based questionnaire survey in Malaysia. It should be noted however that to date there is no fixed number that could be used to explain what is considered an acceptable response rate as Johnson & Owens (undated) highlight that “No definitive formula for response rate estimates exists ... or used to justify choice of response rate formula” (Johnson and Owens, n.d. p132). A study by Sheehan and Hoy (2006) reviewed nine studies that have used both postal mail and e-mail: four studies showed postal mail achieving higher
response rates than e-mail; three studies indicated that e-mail response rates are higher than postal mail, and two studies did not show significant difference in response rates.

In terms of the sampling procedures, literature has shown that sending the questionnaires to a large sample would mitigate the limitation of the research. Large number of respondents is assumed to yield a higher response rate. Cook, Heath, and Thompson (2000) suggested that “representativeness of sample is much more important than response rates attained by the surveys. Studies using non-probability samples use the rationale that the larger the actual number of responses, the more representative the responses.” Sheehan (2002) further adds that “However, a large number of responses do not guarantee a stable and generalizable population. Tierney (2000) cited in Sheehan (2002) compared demographic information provided by visitors to a tourism web site to the demographic information that was available about the actual population of the site. Tierney (2000) further found that large sample sizes do not compensate for low response rates, in that survey respondents were not representative of average visitors to the Web site. In this research the questionnaires were sent to a large number of researchers and academics in all public universities and research institutions in Malaysia, totaling 7,973 questionnaires. In terms of representativeness, the distribution affects all public universities and premier research institutions only.
Table 4.2 Reasons for low response rates

<table>
<thead>
<tr>
<th>No</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bounced e-mails</td>
</tr>
<tr>
<td></td>
<td>- user e-mails are not listed in the public name and address book</td>
</tr>
<tr>
<td></td>
<td>- user not listed in Domino Directory</td>
</tr>
<tr>
<td></td>
<td>- e-mails not delivered because error delivering to xxx, router: database disk quota exceeded</td>
</tr>
<tr>
<td></td>
<td>- permanent error: unroutable address (e-mail has expired)</td>
</tr>
<tr>
<td></td>
<td>- IP address user unknown</td>
</tr>
<tr>
<td></td>
<td>- User unknown</td>
</tr>
<tr>
<td></td>
<td>- Addressee unknown</td>
</tr>
<tr>
<td></td>
<td>- Mailbox unknown or illegal alias</td>
</tr>
<tr>
<td></td>
<td>- File does not exist</td>
</tr>
<tr>
<td></td>
<td>- Message not yet been delivered after more than 168 hours on the queue</td>
</tr>
<tr>
<td></td>
<td>- Message not yet been delivered after more than 24 hours on the queue (connection refused)</td>
</tr>
<tr>
<td></td>
<td>- Message not yet been delivered after more than 24 / 48 hours on the queue (host lookup did not complete)</td>
</tr>
<tr>
<td></td>
<td>- Router: database disk quota exceeded</td>
</tr>
<tr>
<td></td>
<td>- Connection timed out, retry timeout exceeded</td>
</tr>
<tr>
<td></td>
<td>- SMTP error from remote mailer after RCTP TO (mailbox unavailable; mailbox temporarily disabled)</td>
</tr>
<tr>
<td></td>
<td>- SMTP error from remote mailer after initial connection</td>
</tr>
<tr>
<td></td>
<td>- E-mail system has detected virus, block virus</td>
</tr>
<tr>
<td>2</td>
<td>Questionnaires are not relevant due to position</td>
</tr>
<tr>
<td>3</td>
<td>Respondents on study leave</td>
</tr>
<tr>
<td>4</td>
<td>Responses could not be submitted after few trials</td>
</tr>
</tbody>
</table>
The interviews

The face-to-face semi-structured interviews were conducted to obtain information generally on the journal publishing activities, facilities, policies and future plans of the selected non-profit research organizations. The information would form the basis of a description of the general publishing scenario in non-profit research organizations in Malaysia. The semi-structured interview was selected because the interviewer would be able to ask further questions within the scope being studied. There would be specific topics to be covered and they would be included in the interview guide. This guide is to help the interviewer to give attention to all the issues concerned, but the interview itself would remain unstructured.

Interviews range along the continuum from the highly structured to the largely unstructured, and in between lies the semi-structured interview method. According to Maccoby and Maccoby (1954) quoted in Chadwick et al. (1984, p.105), the highly structured interview format is suitable for "more specific hypothesis testing and the rigorous quantification of results" and "to obtain the same basic set of information from all subjects". On the other hand the unstructured format is suitable for "exploratory studies and for studies in which detailed information might be needed on more complex and detailed issues" (Chadwick et al., 1984, p.105).

The semi-structured interview typically refers to "a context in which the interviewer has a series of questions that are in the general form of an interview schedule but is able to vary the sequence of questions" and "the interviewer usually has some latitude to ask further questions in response to what are seen as significant replies" (Bryman, 2001, p. 110). Using the questions in the interview guide, all the interviewees were asked the same questions, but not necessarily in the same order.

The interview was decided upon to complement the questionnaire survey in obtaining firsthand data because: 1) The questionnaire would become too long if it included the interview questions and this would discourage people from responding; 2) Not all
respondents possess information on the status, availability and policies of technology of their organizations. The interview survey has a number of advantages. As it would be conducted face-to-face, it would establish rapport (Burns, 2000, p. 583), which would motivate people to speak the truth. Through the interview, the interviewer can observe the non-verbal communication and the environment as additional information, which is impossible to get from the other method.

For the semi-structured interviews, respondents were selected from organizations that are located in Peninsular Malaysia. Thirteen respondents were interviewed. The respondents were officers who were working with the organizations' presses, three lecturers, one dean of a faculty, who are involved in the publishing of online journals.

The officers were either the chief editors of the presses or the senior editors. Some heads of the presses could not be interviewed because they were not involved directly in publishing processes, while others were not around for a while, so they passed it on to their senior staff. Three interviewees were individuals who were directly involved in publishing online journals. The full list of the interviewees is presented in Table 4.3 below.
### Table 4.3 Number of interviewees and their designations

<table>
<thead>
<tr>
<th>No.</th>
<th>Organization</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>University of Science Malaysia Press</td>
<td>Senior editor</td>
</tr>
<tr>
<td>2</td>
<td>University of Technology Malaysia Press</td>
<td>Head</td>
</tr>
<tr>
<td>3</td>
<td>University Institute Technology MARA Press</td>
<td>Head</td>
</tr>
<tr>
<td>4</td>
<td>National University of Malaysia Press</td>
<td>Senior editor</td>
</tr>
<tr>
<td>5</td>
<td>Faculty of Science Computer and Information Technology, University of Malaya</td>
<td>Dean</td>
</tr>
<tr>
<td>6</td>
<td>University Putra Malaysia</td>
<td>Senior editor</td>
</tr>
<tr>
<td>7</td>
<td>MARDI Press</td>
<td>Head</td>
</tr>
<tr>
<td>8</td>
<td>MPOB Press</td>
<td>Head</td>
</tr>
<tr>
<td>9</td>
<td>FRIM Press</td>
<td>Senior editor</td>
</tr>
<tr>
<td>10</td>
<td>SIRIM Press</td>
<td>Head</td>
</tr>
<tr>
<td>11</td>
<td>Individual</td>
<td>Online journal publisher (special interest group)/lecturer</td>
</tr>
<tr>
<td>12</td>
<td>Individual</td>
<td>Online journal editorial committee (SIG)/lecturer</td>
</tr>
<tr>
<td>13</td>
<td>Individual</td>
<td>Lecturer/editor</td>
</tr>
</tbody>
</table>

### Document analysis

Apart from the two core research instruments utilized in the research, an additional research method that was utilized was the document analysis method. Documents existed in a variety of forms and format, and thus serve a variety of purposes. Lincoln and Guba (1985) distinguish between documents and records on the basis that the text was prepared to attest to some formal, official transaction. Examples of records include formal governmental records, driving licenses, building contracts and banking statements. Documents, on the other hand, are prepared for personal rather than official reason (Hodder, 1998). Examples of documents include diaries, memos, letters, field notes and
others. In this research, due to its comprehensiveness, Lincoln and Guba’s (1998) distinction of documents and records as well as Hodder’s (1998) definition would both be utilised.

The bulk of information on publishing activities in the West could be accessed through the Internet. However, many local publications are still only in printed form, awaiting discovery. Publishing activities in Malaysia are not very well established and considered as lacking in importance compared to other ventures, let alone scholarly publishing activities. Consequently it is understandable that research on this area is small and scattered. Statistics that are relevant to publishing activities are almost none. Data on the number of journals and types of publication published in Malaysia were needed, in order to have some insight about the activities. A visit to the Malaysian National Library on March 2004 provided a list of periodicals published in Malaysia (see Appendix 3). There were 22 journals written in English, and 106 journals written in the Malay language. However, the list includes all types of “journals”, scholarly and non-scholarly. This is because there were tendencies for school or students’ periodicals to use “journal” in their titles. One can only know for sure the type of journals by checking the content of the publications individually.

On top of this, not all journal publishers abide by the regulation to send their publications to the National Library for archiving purposes or to get an ISSN. Thus, up to the date of this study, the actual number of scholarly journals published in Malaysia remained unknown.

Data on where the Malaysian researchers published their research results were also scattered. Two of the organizations have records of their researchers’ activities: MPOB (Malaysia Palm Oil Board) has a record of publication of research results dated from 1970 to 1999 in CD-ROM, while IMR (Institute of Medical Research) has one from 1901 to 2003 in its data base. Other research institutes have the record in their annual reports. The records for universities were not very comprehensive. Some universities published
them in their annual reports, while others were still kept on a departmental or faculty basis.

However, in a recent report on "a bibliometric study of science and technology knowledge productivity in Malaysia" (MASTIC, 2004) there appear to be quite a number of Malaysian papers in international journals. The study was using various databases and tools including AGRICOLA, CABI Abstracts, Biological Abstracts, Chemical Abstracts, IEEE, Inspec, Medline, Physics Abstracts, National Science Indicators (ISI's 2002 NSIOD-Deluxe), MASTIC Directory of Scientists, and MASTIC Research and Development Classification System, 4th edition. However, this study only focused on science-based papers in international journals. Data on papers published in local journals, and on non-science papers, are still not available.

Data analysis

The questionnaire survey data was collected, coded and analysed using SPSS version 11. The semi-structured interviews were recorded, transcribed and coded through analysis using the QSR NUDI*ST program. The software aids the process of comparing categories and data exploration. This allows the analyst to make connections between the designated codes. The process of analysing the data with the NUDI*ST program allowed the researcher to explore the many levels of data. From listening to the taped interviews, to transcribing the interviews and reading and re-reading the interviews in text form, each part of the process provided the researcher with additional layers of information, not just about the phenomenon that the research is attempting to address, but also the existing state of mind of the interviewees, which is a very rich data set in itself. The process of coding the interviews is also very interesting. The initial nodes (for coding purposes) was devised from the actual interview guidelines, as well as informed by the items taken off the questionnaire. Later, more complex nodes could emerge and were subsequently added. After all the transcripts were coded, reports would be generated from the data. The advantage of this type of data analysis is that the researcher could explore issues which
are not present in the survey data. For example, we may be able to understand why local
researchers are not inclined to publish online, but are more active in presenting research
results in conferences.

This chapter presents the methodological considerations that underpin the research
design. The combination of research methods is also discussed. The following chapters
will discuss the analysis of the data as well as the findings at length.
Chapter 5

Analysis of questionnaire

Introduction

The objective of the questionnaire was to explore the adoption of publishing in online journals among local researchers. Analysis will be focused on frequency and relationship between the adoption variable and other variables such as the respondents’ background, technology, publishing trend and support from organizations. The adoption variable is deduced from the survey questionnaire that asked “Where do you publish your research results?” There are nine items that respondents could choose from, covering publishing in print medium as well as online medium. Respondents who ticked online publishing as medium of publishing research results are considered have adopted online publishing as opposed to those who ticked the print publication as non-adoption of online publishing.

The analysis was done using the SPSS version 11.5. Only 368 questionnaires were considered valid to be analysed. Nevertheless the N will be varied throughout the analysis, as some respondents did not answer some of the questions.

Profile of respondents

The questionnaire includes variables in the demography section such as age, gender, ethnic group, place of work, academic qualification, job designation, duration in
current job, and field of expertise of the respondents. The data was used to construct the profile of the respondents in this study. The findings of the questionnaire data are presented below.

**Age**

The largest (20.7%) age group of respondents is between 31-35 years old. The smallest group is aged less than 26 years old (1.4%). The graph shows the usual working age 26 to 55 years old. It could be inferred that active researchers at public universities are relatively young in terms of age. The following chart provides the overall breakdown of the age groups.

**Figure 5.1: Bar chart of respondents’ ages**

Table 5.1 highlights that non-adoption is higher than the adoption across the age groups. The highest percentage for non-adoption (75.4%) is from the group of 36-40 years old, whilst the highest percentage for adoption (40.0%) is from the group age of 82
less than 26 years old. The second highest group of online publishing adopter is from the respondents of 51-55 years old (39.1%), followed by the group of 31-35 years old (36.8%).

However, it appears that age does not have an influence on adoption of online publishing. The chi-square test confirms that age is not associated with the respondents' adoption of online publishing, as chi-square, \( \chi^2 = 6.127, df=7, \) with \( \rho = 0.525 \) is greater than \( \alpha = 0.05. \)

<table>
<thead>
<tr>
<th>Table 5.1: Cross tabulation of respondents' age and adoption of online publishing (N=368)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age group (years)</strong></td>
</tr>
<tr>
<td><strong>Adoption</strong> (n=110)</td>
</tr>
<tr>
<td><strong>Non-adoption</strong> (n=58)</td>
</tr>
<tr>
<td><strong>Total</strong> (n=168)</td>
</tr>
</tbody>
</table>

Note: \( \chi^2 = 6.127, df=7, \rho = 0.525, \) df: degree of freedom, \( \rho \): observed significance

**Gender**

The response from male researchers was higher (60.1%) than that from females (39.9%). This is an interesting finding, as it is generally assumed that women make up half of the academic workforce in the country (Social Statistics Bulletin, 2006). It may also be inferred that the male researchers are more active than the female researchers. Figure 5.2 below depicts the difference.
Although overall the non-adoption among respondents is still higher than the adoption, the adoption among male respondents is higher (33.0%) compared to female (25.2%). It is assumed that male researchers have a higher inclination towards online publishing compared to female.

However, based on the chi-square test, gender has no relationship with the adoption of online journal publishing since $\chi^2 = 2.604$, df=1, with $p = 0.107$ is greater than $\alpha = 0.05$. 
Table 5.2: Cross tabulation of respondents’ gender and adoption of online publishing (N=368)

<table>
<thead>
<tr>
<th>Adoption</th>
<th>Gender</th>
<th>% (Frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Adoption (n=110)</td>
<td>330 (73)</td>
<td>25.2 (37)</td>
</tr>
<tr>
<td>Non-adoption (n=258)</td>
<td>67.0 (148)</td>
<td>74.8 (110)</td>
</tr>
<tr>
<td>Total</td>
<td>100.0 (221)</td>
<td>100.0 (147)</td>
</tr>
</tbody>
</table>

Note: $\chi^2 = 2.604$, df = 1, $p = 0.107$, df: degree of freedom, $p$: observed significance

**Ethnic group**

The majority of the respondents are Malays with 84.2%, while Chinese, the second largest ethnic group in Malaysia, only make up 8.2% of the respondents. One probable explanation on the lack of respondents among Chinese and Indian ethnic groups is the fact that the majority of the workforces in the public sector in Malaysia are Malays.
In terms of online publishing adoption for all ethnic groups in Malaysia, it is still lower than the non-adoption. However, when compared among ethnic group, the Chinese ethnic group has a higher adoption (36.7%) of online publishing compared to other races. However, the relationship between ethnic group and the adoption of online journal publishing cannot be tested as chi-square test is not valid in that it violates the requirement for test validity, as two cells (more than 20% of the cells) have an expected count of less than 5.

Table 5.3: Cross tabulation between ethnic group and adoption of online publishing (N = 368)

<table>
<thead>
<tr>
<th>Ethnic</th>
<th>Adoption % (Frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Malay</td>
</tr>
<tr>
<td>Adopted (n=110)</td>
<td>29.7 (92)</td>
</tr>
<tr>
<td>Non-Adopted (n=258)</td>
<td>70.3 (218)</td>
</tr>
<tr>
<td>Total</td>
<td>100.0 (310)</td>
</tr>
</tbody>
</table>

Note: The Chi-square Test is not valid as 2 cells (25.0%) have an expected count less than 5
Place of work

It had been anticipated that the majority of the respondents were working in the universities. From the data it appears that the workforces in the public universities are higher than in the public research institutes (79.6%). There are also more public universities than there are research institutions. Furthermore, there is a need for more researchers/academic staff in public universities, which offers more job opportunities.

Figure 5.4: Pie chart of respondents' places of work

Table 5.4: Cross tabulation of respondents' place of work and adoption of online publishing (N=368)

<table>
<thead>
<tr>
<th>Adoption</th>
<th>Workplace</th>
<th>% (Frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>University</td>
<td>30.7 (90)</td>
</tr>
<tr>
<td>Adoption (n=110)</td>
<td>Research Institution</td>
<td>26.7 (20)</td>
</tr>
<tr>
<td>Non-adoption (n=258)</td>
<td>69.3 (203)</td>
<td>73.3 (55)</td>
</tr>
<tr>
<td>Total</td>
<td>100.0 (293)</td>
<td>100.0 (75)</td>
</tr>
</tbody>
</table>

Note \( \chi^2 = 0.467, df = 1; \ p = 0.494, \) df degree of freedom, \( P \) observed significance
The data revealed that the respondents from the universities have higher adoption attitude (30.7%) compared to respondents from the research institutes (26.7%) although both workplaces showed a lower adoption rate compared to non-adoption.

However, Table 5.4 demonstrates that the chi-square, $\chi^2 = 0.467$, df=1, with $p = 0.494$ is greater than $\alpha = 0.05$, and that the workplace does not have any correlation with the respondents' adoption of online publishing.

**Highest academic qualifications**

The largest group of respondents (55.2%) possessed a Master's degree, while 41.8% are Ph.D. holders. Only 3.0% have a Bachelor's degree as their highest qualification. This is due to the fact that the majority of the respondents are academic staff and work in the universities, and the minimum requirement for the teaching post at the university is that the candidate must have at least a second degree.

**Figure 5.5: Pie chart of respondent's highest qualification**
Among the three groups, respondents who possessed a Ph.D. had the highest adoption of online publishing (37.7%). The graph indicates that high academic qualification may have an impact on the adoption of online publishing among the researchers.

The resulting chi-square test, $\chi^2 = 7.680$, df=2, with $p = 0.021$ which is smaller than $\alpha = 0.05$, affirmed that higher academic qualification is associated with the respondents' adoption of online publishing, and although the correlation is considered small, it is still significant.

Table 5.5: Cross tabulation of respondents' academic qualification and adoption of online publishing (N=368)

<table>
<thead>
<tr>
<th>Academic qualifications</th>
<th>Adoption</th>
<th>% (Frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bachelor's</td>
<td>Master's</td>
</tr>
<tr>
<td>Adopnon(n = 110)</td>
<td>27.3 (3)</td>
<td>24.1 (49)</td>
</tr>
<tr>
<td>Non-adoption (n = 258)</td>
<td>72.7 (8)</td>
<td>75.9 (154)</td>
</tr>
<tr>
<td>Total</td>
<td>100.0 (11)</td>
<td>100.0 (203)</td>
</tr>
</tbody>
</table>

Note $\chi^2 = 7.680^*$, df=2; $p = 0.021$, df degree of freedom, $p$ observed significance, $^*$: Test is significant at 0.05 level of significant

Respondents' place of education

When the institutions where the respondents obtained their highest qualification were analysed, the data revealed that slightly more than half of the sample population (52%) graduated from Western institutions, whilst 48% graduated from Malaysian and other Asian universities, such as Indonesia, the Philippines, and Arab countries. Figure 5.6 illustrates the breakdown of the respondents' place of education.
From Table 5.6 it appears that respondents educated from Western institutions have a higher percentage (34.6%) of adoption of online publishing and are lower non-adoption (65.4%) than respondents from Malaysian and other Asian institutions (24.9% and 75.1% respectively). This may be due to the fact that the respondents with a Western education were exposed to the activities associated with online journal publishing while studying, such as ease of access to online-journal subscriptions and research opportunities with their supervisors that are subsequently submitted as online journal articles.

The chi-square test, $\chi^2 = 4.121$, df=1, with $p = 0.042$ is smaller than $\alpha = 0.05$ also proves that institutions where respondents received their training is significantly associated with the respondents' adoption of online publishing.
Table 5.6: Cross tabulation of respondents' education and adoption of online publishing (N = 368)

<table>
<thead>
<tr>
<th>Adoption</th>
<th>Education institution % (Frequency)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Malaysian and other Asian institutions</td>
<td>Western institutions</td>
<td></td>
</tr>
<tr>
<td>Adoption (n = 110)</td>
<td>24.9 (44)</td>
<td>34.6 (66)</td>
<td></td>
</tr>
<tr>
<td>Non-adoption (n = 258)</td>
<td>75.1 (133)</td>
<td>65.4 (125)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100.0 (177)</td>
<td>100.0 (191)</td>
<td></td>
</tr>
</tbody>
</table>

Note: $\chi^2 = 4.121$, df = 1; $p = 0.042^*$; df: degree of freedom, $p$: observed significance, $^*$ Correlation is significant at the 0.05 level (2-tailed).

Current job designation

In terms of the occupation of local researchers, the data revealed that the largest group (59.0%) of respondents was lecturers. Others were academic staff that are ranked as associate professors (13.3%), academic administrators, who may or may not involved in lecturing (7.9%) and academic staffs that are ranked as professors (3.8%). Research officers, who normally work in research institutes, made up only 16% of the respondents. The breakdown of the respondents' current job designation is featured in Figure 5.7.
Among the local researchers, the associate professors groups have the highest percentage of adoption (34.7%) and the lowest non-adoption (65.3%) compared to other groups. Interestingly, the most senior academic staffs, the professors, have the highest non-adoption compared to other group (71.4%). Researchers, on the other hand, have the lowest adoption of online publishing.

The chi-square test of this data, shows that \( \chi^2 = 0.954 \) is greater than \( \alpha = 0.05 \), therefore no significant relationship between job designation and the respondents' adoption of publishing in online journals. This is presented in Table 5.7.
Table 5.7: Cross tabulation of respondents' current job designation and adoption of online publishing (N=368)

<table>
<thead>
<tr>
<th>Adoption</th>
<th>Academic Administrator</th>
<th>Professor</th>
<th>Assoc. Professor</th>
<th>Lecturer</th>
<th>Researcher/Research Officer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adoption (n = 110)</td>
<td>31 0 (9)</td>
<td>28 6 (4)</td>
<td>34 7 (17)</td>
<td>29 0 (63)</td>
<td>28.8(17)</td>
</tr>
<tr>
<td>Non-adoption (n = 258)</td>
<td>69 0 (20)</td>
<td>71 4 (10)</td>
<td>65 3 (32)</td>
<td>71 0 (154)</td>
<td>71 2 (42)</td>
</tr>
<tr>
<td>Total</td>
<td>100 0 (29)</td>
<td>100.0 (14)</td>
<td>100.0 (49)</td>
<td>100.0 (217)</td>
<td>100.0 (59)</td>
</tr>
</tbody>
</table>

Note $\chi^2 = 0.678$, df = 4; $p = 0.954$, df: degree of freedom, $p$: observed significance

**Duration in current job**

The largest percentage (42.7%) of the respondents reported that they had worked for 2-5 years in their current jobs, followed by those who had worked for 6-9 years (17.7%), and those who worked for 17 years or more (16.8%). The least percentage is the respondents who worked in the current job between 14-17 years (3.5%). The breakdown is presented in Figure 5.8.
The data further revealed that the respondents who worked between 6-9 years have the highest adoption (44.6%). This group also has the lowest percentage of non-adoption (55.4%). Respondents who worked between 10-13 years have the lowest adoption (20.0%) and the highest non-adoption (80.0%). In general, the groups have an overall non-adoption attitude towards online publishing.

The chi-square test revealed, however, that as, $\chi^2 = 9.954$, df=5, with $\rho = 0.077$ is greater than $\alpha = 0.05$, there is no significant relationship between the current job duration and the respondents' adoption of online journal publishing. The breakdown is shown in Table 5.8.
Table 5.8: Cross tabulation of respondents’ current job duration and adoption of online publishing (N=368)

<table>
<thead>
<tr>
<th>Adoption</th>
<th>Job duration (years)</th>
<th>% (Frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>less than 2</td>
<td></td>
</tr>
<tr>
<td>Adoption (n = 110)</td>
<td>23.8</td>
<td>29.3</td>
</tr>
<tr>
<td></td>
<td>(5)</td>
<td>(46)</td>
</tr>
<tr>
<td>Non-adoption (n = 258)</td>
<td>76.2</td>
<td>70.7</td>
</tr>
<tr>
<td></td>
<td>(16)</td>
<td>(111)</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>(21)</td>
<td>(157)</td>
</tr>
</tbody>
</table>

Note: $\chi^2 = 9.954$, df = 5; $p = 0.077$, df = degree of freedom, $p$ is observed significance

Field of expertise

When the questionnaire was first designed it listed 24 fields of expertise, with an open-ended space for respondents to write in any other field not originally listed. This was to encourage people to respond. However, some areas were left blank because the respondents claimed that they came from a different subject area than those listed, while the open space provided did not generate the kind of information needed, with very few responses. The analysis of the questionnaire grouped together the 24 fields into five main subject areas that encapsulated all the respondents’ fields of expertise. The largest percentage (40.9%) of the respondents worked in the Hard Sciences (chemistry, physics, biology) field, followed by Engineering (20.7%). The group with the lowest percentage is from the Arts (4.5%), as illustrated by Figure 5.9 and Table 5.9.
Respondents from all fields of expertise showed lower adoption compared to non-adoption with respondents from economics having the lowest adoption (17.9%), and highest non-adoption (82.1%). Respondents from the Hard Sciences, on the other hand, have the highest adoption (34.7%) and lowest non-adoption (65.1%). Although the number of respondents from Arts is small the percentage of adoption is higher.
(31.3%) than engineering (29.3%), social science (25.9%) and economics (17.9%). However, the field of expertise is not associated with the respondents' adoption of online publishing as illustrated from the chi-square test, where, $\chi^2 = 6.782$, df=4, with $\rho = 0.148$ is greater than $\alpha = 0.05$.

**Technology accessibility and availability**

The majority of the respondents had access to computers and the Internet at home (70.1%) and at the office (98.4%). The percentages of respondents who could not access the computer at home and at the office were very small (12.0% and 0.3% respectively), as Table 5.10 illustrates.

<table>
<thead>
<tr>
<th>Access to computer and Internet at home</th>
<th>No access</th>
<th>Access to computers only</th>
<th>Access to computers and Internet</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>120 (44)</td>
<td>179 (66)</td>
<td>70.1 (258)</td>
<td>100 (368)</td>
</tr>
</tbody>
</table>

| Access to computer and Internet at the office | 0.3 (1) | 1.4 (5) | 98.4 (362) | 100 (368) |

Interestingly, however, the online publishing adoption of online publishing for those who had access to a computer and the Internet at home is still lower (29.8%) compared to the non-adoption (70.2%). However, it should be pointed out though, that respondents who do not have access to the Internet at home have the highest adoption (34.1%) and the lowest in non-adoption (65.9%) compared to other groups.
There is no relationship between access to the Internet at home and adoption of online publishing, since $\chi^2 = 0.587$ (df = 2) with $p = 0.746$ is greater than $\alpha = 0.05$ as presented in Table 5.11.

Table 5.11: Cross tabulation of respondents' access to computers and the Internet at home and adoption of online publishing (N = 368)

<table>
<thead>
<tr>
<th>Adoption</th>
<th>Access to computers &amp; Internet at home</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No access</td>
</tr>
<tr>
<td>Adoption (n = 110)</td>
<td></td>
</tr>
<tr>
<td>34.1 (15)</td>
<td>27.3 (18)</td>
</tr>
<tr>
<td>Non-adoption (n = 258)</td>
<td></td>
</tr>
<tr>
<td>65.9 (29)</td>
<td>72.7 (48)</td>
</tr>
<tr>
<td>Total</td>
<td>100.0 (44)</td>
</tr>
</tbody>
</table>

Note: $\chi^2 = 0.587$, df = 2, $p = 0.746$ (NS)

NS: Test is not significant at 0.05 level of significance

The percentage of adoption among respondents who had access to a computer and the Internet at the office is lower (29.8%) compared to non-adoption (70.2%). The highest percentage of adoption is among the respondents who had access to computers only (40.0%). Having access to the computer and the Internet in the office does not influence respondents in adoption of online publishing.

The corresponding chi-square test of independency could not be used as four cells (66.7% of the cells) had an expected count of less than 5.
Table 5.12: Respondents' access to computers and the Internet at the office and adoption of online publishing (N = 368)

<table>
<thead>
<tr>
<th>Adoption</th>
<th>Access to computers &amp; the Internet at the office</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Access to computers only</td>
</tr>
<tr>
<td>No access</td>
<td>40 0 (2)</td>
</tr>
<tr>
<td>Access only</td>
<td>60 0 (3)</td>
</tr>
<tr>
<td>Total</td>
<td>100 0 (5)</td>
</tr>
</tbody>
</table>

Note: The Chi-square Test is not valid as 4 cells (66.7%) have expected count less than 5

Experience and skills in using IT

A very high percentage of the respondents reportedly engaged in a number of computer activities daily; e-mail (97.3%), word processing packages (94.8%), and surfing the WWW (85.9%). However, on a daily basis, creating PDF files and HTML for document design are engaged in by a very small percentage of respondents (5.2% and 4.1% respectively), as illustrated by Table 5.13.

Table 5.13: Frequency of respondents' engaging in computer activities (N = 368)

<table>
<thead>
<tr>
<th>Activities</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Degree of Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Dev</td>
<td>Never</td>
</tr>
<tr>
<td>Email</td>
<td>4.97</td>
<td>0.163</td>
<td>0 0 (0)</td>
</tr>
<tr>
<td>Word processing packages</td>
<td>4.93</td>
<td>0.380</td>
<td>0.5 (2)</td>
</tr>
<tr>
<td>Surfing the WWW</td>
<td>4.79</td>
<td>0.642</td>
<td>1 6 (6)</td>
</tr>
<tr>
<td>Creating PDF file</td>
<td>2.22</td>
<td>0.642</td>
<td>4.2 1 (155)</td>
</tr>
<tr>
<td>Creating html for document</td>
<td>2.10</td>
<td>1.147</td>
<td>40 2 (148)</td>
</tr>
</tbody>
</table>

Note: Std dev.: Standard deviation,
In Table 5.14, creating PDF files and designing HTML documents gain higher percentages of adoption on lower frequencies, such as 'once or twice a week', 'once or twice a month', and 'once or twice a year'. The 'never' responses for these two activities are also high (42.1%, and 40.2% respectively). This also shows that many of the respondents have not been engaging in creating PDF files and HTML for document design.

Table 5.14: Cross tabulation of respondents' engaging in computer activities and adoption of online publishing (N=368)

<table>
<thead>
<tr>
<th>Activities</th>
<th>Adoption Mean Std. Dev</th>
<th>Mean Std. Dev</th>
<th>Adoption % (%)</th>
<th>Never</th>
<th>Once or Twice a Year</th>
<th>Once or Twice a Month</th>
<th>Once or Twice a Year</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>Adoption 4.99 0.095</td>
<td>4.97 0.184</td>
<td>4.97 0.163</td>
<td>0.0 (0)</td>
<td>0.0 (0)</td>
<td>0.0 (0)</td>
<td>10.0 (1)</td>
<td>30.4 (109)</td>
</tr>
<tr>
<td></td>
<td>Non-adoption 4.97 0.184</td>
<td>4.97 0.163</td>
<td>4.97 0.163</td>
<td>0.0 (0)</td>
<td>0.0 (0)</td>
<td>0.0 (0)</td>
<td>100.0 (10)</td>
<td>100.0 (358)</td>
</tr>
<tr>
<td>Word processing packages</td>
<td>Adoption 4.96 0.232</td>
<td>4.91 0.427</td>
<td>4.93 0.380</td>
<td>0.0 (0)</td>
<td>0.0 (0)</td>
<td>0.0 (0)</td>
<td>100.0 (2)</td>
<td>100.0 (15)</td>
</tr>
<tr>
<td></td>
<td>Non-adoption 4.96 0.232</td>
<td>4.91 0.427</td>
<td>4.93 0.380</td>
<td>0.0 (0)</td>
<td>0.0 (0)</td>
<td>0.0 (0)</td>
<td>100.0 (2)</td>
<td>100.0 (15)</td>
</tr>
<tr>
<td>Surfing the WWW</td>
<td>Adoption 4.83 0.539</td>
<td>4.77 0.682</td>
<td>4.79 0.642</td>
<td>16.7 (1)</td>
<td>0.0 (0)</td>
<td>33.3 (2)</td>
<td>28.2 (11)</td>
<td>30.4 (96)</td>
</tr>
<tr>
<td></td>
<td>Non-adoption 4.83 0.539</td>
<td>4.77 0.682</td>
<td>4.79 0.642</td>
<td>16.7 (1)</td>
<td>0.0 (0)</td>
<td>33.3 (2)</td>
<td>28.2 (11)</td>
<td>30.4 (96)</td>
</tr>
<tr>
<td></td>
<td>Total 4.83 0.539</td>
<td>4.77 0.682</td>
<td>4.79 0.642</td>
<td>16.7 (1)</td>
<td>0.0 (0)</td>
<td>33.3 (2)</td>
<td>28.2 (11)</td>
<td>30.4 (96)</td>
</tr>
<tr>
<td>Creating PDF file</td>
<td>Adoption 2.60 0.539</td>
<td>2.05 0.682</td>
<td>2.22 0.642</td>
<td>18.1 (28)</td>
<td>41.3 (26)</td>
<td>33.3 (28)</td>
<td>38.3 (18)</td>
<td>52.6 (10)</td>
</tr>
<tr>
<td></td>
<td>Non-adoption 2.60 0.539</td>
<td>2.05 0.682</td>
<td>2.22 0.642</td>
<td>18.1 (28)</td>
<td>41.3 (26)</td>
<td>33.3 (28)</td>
<td>38.3 (18)</td>
<td>52.6 (10)</td>
</tr>
<tr>
<td></td>
<td>Total 2.60 0.539</td>
<td>2.05 0.682</td>
<td>2.22 0.642</td>
<td>18.1 (28)</td>
<td>41.3 (26)</td>
<td>33.3 (28)</td>
<td>38.3 (18)</td>
<td>52.6 (10)</td>
</tr>
<tr>
<td>Creating html for document design</td>
<td>Adoption 2.28 1.102</td>
<td>2.02 1.158</td>
<td>2.10 1.147</td>
<td>21.6 (32)</td>
<td>34.7 (34)</td>
<td>38.7 (29)</td>
<td>34.4 (11)</td>
<td>26.7 (4)</td>
</tr>
<tr>
<td></td>
<td>Non-adoption 2.28 1.102</td>
<td>2.02 1.158</td>
<td>2.10 1.147</td>
<td>21.6 (32)</td>
<td>34.7 (34)</td>
<td>38.7 (29)</td>
<td>34.4 (11)</td>
<td>26.7 (4)</td>
</tr>
<tr>
<td></td>
<td>Total 2.28 1.102</td>
<td>2.02 1.158</td>
<td>2.10 1.147</td>
<td>21.6 (32)</td>
<td>34.7 (34)</td>
<td>38.7 (29)</td>
<td>34.4 (11)</td>
<td>26.7 (4)</td>
</tr>
</tbody>
</table>

Note: n(adoption) = 110; n(non-adoption) = 258, Std dev. = Standard deviation.
For all the activities, the adoption of online publishing is lower than the non-adoption. The highest adoption is from the respondents who created PDF files “daily” (52.6%). Using e-mail and surfing the WWW daily do not contribute to the adoption much, where both activities only recorded 30.4%. It could therefore be said that engaging in computer activities has no significant relationship with the adoption of online publishing.

In terms of experience using electronic resources for research purposes (Table 5.15) a large percentage of respondents searched newspapers on a daily basis (50.8%). For research using scholarly journals and archival materials, the highest percentage is those browsing ‘once or twice a week’ (37.2% and 34.0% respectively). The highest percentage of usage of searching for conference proceedings and government resources is ‘once or twice a month’ (39.7% and 39.1% respectively).

Table 5.15: Frequency of respondents’ use of electronic resources for research purposes (N=368)

<table>
<thead>
<tr>
<th>Electronic resource used</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Degree of frequency % (Frequency)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Never</td>
<td>Once or Twice a Year</td>
</tr>
<tr>
<td>Newspapers</td>
<td>3.93</td>
<td>1.319</td>
<td>7.6 (28)</td>
<td>10.1 (37)</td>
</tr>
<tr>
<td>Scholarly journal</td>
<td>3.81</td>
<td>1.019</td>
<td>3.5 (13)</td>
<td>5.4 (20)</td>
</tr>
<tr>
<td>Archival materials</td>
<td>3.59</td>
<td>1.111</td>
<td>6.3 (23)</td>
<td>7.9 (29)</td>
</tr>
<tr>
<td>Conference proceedings</td>
<td>3.26</td>
<td>1.087</td>
<td>7.3 (27)</td>
<td>13.0 (48)</td>
</tr>
<tr>
<td>Government resources</td>
<td>3.12</td>
<td>1.099</td>
<td>8.4 (31)</td>
<td>17.7 (65)</td>
</tr>
</tbody>
</table>

Note: Std dev. = Standard deviation

Respondents who use government resources for research on a daily basis showed a higher adoption of online publishing (48%) than those who uses scholarly journal (39%). For all the resources, the percentage for adoption of online publishing is lower
than the non-adoption. It could therefore be said research using the electronic resources has no significant relationship with the adoption of online publishing.

Table 5.16: Cross tabulation of respondents' use of electronic resources for research purposes and adoption of online publishing (N = 366)

<table>
<thead>
<tr>
<th>Electronic resource used</th>
<th>Adoption</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Degree of frequency % (Frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Never</td>
</tr>
<tr>
<td>Newspapers</td>
<td>Adoption</td>
<td>4.17</td>
<td>1.164</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>Non-adoption</td>
<td>3.83</td>
<td>1.369</td>
<td>85.7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.93</td>
<td>1.319</td>
<td>100.0</td>
</tr>
<tr>
<td>Scholarly journals</td>
<td>Adoption</td>
<td>4.0</td>
<td>0.986</td>
<td>23.1</td>
</tr>
<tr>
<td></td>
<td>Non-adoption</td>
<td>3.72</td>
<td>1.024</td>
<td>76.9</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.81</td>
<td>1.019</td>
<td>100.0</td>
</tr>
<tr>
<td>Archival materials</td>
<td>Adoption</td>
<td>3.89</td>
<td>0.989</td>
<td>17.4</td>
</tr>
<tr>
<td></td>
<td>Non-adoption</td>
<td>3.47</td>
<td>1.137</td>
<td>82.6</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.59</td>
<td>1.111</td>
<td>100.0</td>
</tr>
<tr>
<td>Conference proceedings</td>
<td>Adoption</td>
<td>3.52</td>
<td>1.038</td>
<td>14.8</td>
</tr>
<tr>
<td></td>
<td>Non-adoption</td>
<td>3.16</td>
<td>1.091</td>
<td>85.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.26</td>
<td>1.087</td>
<td>100.0</td>
</tr>
<tr>
<td>Government resources</td>
<td>Adoption</td>
<td>3.33</td>
<td>1.158</td>
<td>29.0</td>
</tr>
<tr>
<td></td>
<td>Non-adoption</td>
<td>3.03</td>
<td>1.064</td>
<td>71.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.12</td>
<td>1.099</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note: \( n_{\text{adoption}} = 110; n_{\text{non-adoption}} = 258; \) Std dev. Standard deviation

102
Table 5.17: Chi-square test between using electronic resources for research purposes and adoption of online publication (N=366)

<table>
<thead>
<tr>
<th>Computer Activities</th>
<th>Newspapers</th>
<th>Scholarly journals</th>
<th>Archival materials</th>
<th>Conference proceedings</th>
<th>Government resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>(df, p)</td>
<td>(4, 0.173)</td>
<td>(4, 0.156)</td>
<td>(4, 0.007)</td>
<td>(4, 0.042)</td>
<td>(4, 0.045)</td>
</tr>
<tr>
<td>(r, p)</td>
<td>NS</td>
<td>NS</td>
<td>(0.195, 0.007)</td>
<td>(0.164, 0.042)</td>
<td>(0.163, 0.045)</td>
</tr>
</tbody>
</table>

Note: df: degree of freedom, p: observed significance; r: Correlation.
* Correlation is significant at the 0.05 level (2 tailed), ** Test is significant at 0.01 level (2 tailed), NS: Test is not significant at 0.05 level (2 tailed)

To test the relationship of each item, the chi-square test was used. Three items, "archival materials", "conference proceedings", and "government resources" indicated observed significant values smaller than level of significance $\alpha = 0.05$, and signify a relationship with adoption of publishing in online journals. However, in terms of strength, the three items have small correlations. It could be said that the respondents who uses the three resources adopt online journal publishing.

Reasons for publishing research results

The majority of the respondents agree that the reason for publishing is for career advancement (97.3%), the sharing of knowledge (97.0%), for future funding (88.0%), for personal prestige (86.6%), and as required by sponsors (73.6%). It is interesting to note that quite a percentage of respondents chose ‘neutral’ for the reason ‘required by sponsor’ (21.8%) (Table 5.18).
Table 5.18: Frequency of respondent’s reasons for publishing research results (N=367)

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Degree of Agreement % (frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Disagree</td>
</tr>
<tr>
<td>Career advancement</td>
<td>4.68</td>
<td>0.606</td>
<td>1 (1) (4)</td>
</tr>
<tr>
<td>Sharing knowledge</td>
<td>4.65</td>
<td>0.595</td>
<td>0 8 (3)</td>
</tr>
<tr>
<td>Future Funding</td>
<td>4.31</td>
<td>0.840</td>
<td>3 0 (11)</td>
</tr>
<tr>
<td>Personal Prestige</td>
<td>4.28</td>
<td>0.837</td>
<td>3.3 (12)</td>
</tr>
<tr>
<td>Required by Sponsor</td>
<td>3.95</td>
<td>0.866</td>
<td>4 6 (17)</td>
</tr>
</tbody>
</table>

Note: Std. Dev.: Standard Deviation

The respondents who agree that publishing research results would affect future funding has the highest percentage of adoption (31.3%) (Table 5.19). On the other hand, the respondents who agree that publishing research results would boost their career have the lowest percentage of adoption (29%).

The chi-square test, however, shows that there is no relationship between reasons for publishing research results and the adoption of publishing in online journal (Table 5.19).
### Table 5.19: Distribution of respondents' reasons for publishing research result and the relationship with adoption of online publishing (N = 366)

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Adoption</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Degree of Agreement % (frequency)</th>
<th>χ² (df, p)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(% frequency)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(frequency)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career advancement</td>
<td>Adoption</td>
<td>469 0.687</td>
<td>500 (2)</td>
<td>33 3 (2)</td>
<td>29.7 (106)</td>
</tr>
<tr>
<td></td>
<td>Non-adoption</td>
<td>467 0.569</td>
<td>500 (2)</td>
<td>66 7 (4)</td>
<td>70 3 (251)</td>
</tr>
<tr>
<td>Total</td>
<td>468 0.606</td>
<td>100 0 (4)</td>
<td>100 0 (6)</td>
<td>100 0 (357)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sharing knowledge</td>
<td>Adoption</td>
<td>469 0.554</td>
<td>33 3 (1)</td>
<td>25 0 (2)</td>
<td>30 1 (107)</td>
</tr>
<tr>
<td></td>
<td>Non-adoption</td>
<td>463 0.612</td>
<td>66 7 (2)</td>
<td>75 0 (6)</td>
<td>69 9 (249)</td>
</tr>
<tr>
<td>Total</td>
<td>465 0.595</td>
<td>100 0 (8)</td>
<td>100.0 (8)</td>
<td>100.0 (356)</td>
<td></td>
</tr>
<tr>
<td>Future Funding</td>
<td>Adoption</td>
<td>440 0.792</td>
<td>27.3 (3)</td>
<td>18.2 (6)</td>
<td>31.3 (101)</td>
</tr>
<tr>
<td></td>
<td>Non-adoption</td>
<td>427 0.858</td>
<td>72.7 (8)</td>
<td>81.8 (27)</td>
<td>68.7 (222)</td>
</tr>
<tr>
<td>Total</td>
<td>431 0.840</td>
<td>100 0 (11)</td>
<td>100 0 (33)</td>
<td>100.0 (323)</td>
<td></td>
</tr>
<tr>
<td>Personal Prestige</td>
<td>Adoption</td>
<td>435 0.829</td>
<td>25.0 (3)</td>
<td>27.0 (10)</td>
<td>30.5 (97)</td>
</tr>
<tr>
<td></td>
<td>Non-adoption</td>
<td>426 0.841</td>
<td>75 0 (9)</td>
<td>73 0 (27)</td>
<td>69 5 (221)</td>
</tr>
<tr>
<td>Total</td>
<td>428 0.837</td>
<td>100 0 (12)</td>
<td>100 0 (37)</td>
<td>100.0 (318)</td>
<td></td>
</tr>
<tr>
<td>Required by Sponsor</td>
<td>Adoption</td>
<td>398 0.813</td>
<td>23.5 (4)</td>
<td>31.3 (25)</td>
<td>30 0 (81)</td>
</tr>
<tr>
<td></td>
<td>Non-adoption</td>
<td>394 0.889</td>
<td>96 5 (13)</td>
<td>68.7 (55)</td>
<td>70 0 (189)</td>
</tr>
<tr>
<td>Total</td>
<td>395 0.866</td>
<td>100 0 (17)</td>
<td>100 0 (80)</td>
<td>100 0 (270)</td>
<td></td>
</tr>
</tbody>
</table>

Note: n_adoption = 110, n_non-adoption = 257, Std Dev = Standard Deviation, df = degree of freedom, p = observed significance; NS = Test is not significant at 0.05 level.

### Research publication medium

The majority of the respondents do not publish in online publishing outlets as listed in the questionnaire. High percentages of respondents (ranging from 70.2% to 77.6%) state that they have never published articles in any forms of online publication. Respondents do publish in online publication on 'often' and 'rarely' basis although the percentage is not high (between 5.5% to 20.5%). Of all the types of online
publication outlet preferred by the respondents, 'online-only journal' scored the very least percentage; 5.5% on 'often' and 16.9% on 'rarely' basis. Responses for publishing in parallel (online and print) international journals is higher compared to 'publishing in the local parallel journals for both 'often' and 'rarely' basis (Table 5.20)

Table 5.20: Publishing research results in online publications (N = 366)

<table>
<thead>
<tr>
<th>Type of online publication</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Degree of frequency % (Frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Never</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rarely/ Occasionally</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Often/ Very Often</td>
</tr>
<tr>
<td>Reprint/ preprint archive</td>
<td>1.60</td>
<td>1.063</td>
<td>70.8 (259)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>19.7 (72)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>9.6 (35)</td>
</tr>
<tr>
<td>Electronic/ online international journal (online and print version)</td>
<td>1.60</td>
<td>1.080</td>
<td>70.2 (257)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20.5 (75)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>9.3 (34)</td>
</tr>
<tr>
<td>Electronic/ online local journal (online and print version)</td>
<td>1.51</td>
<td>0.976</td>
<td>73.8 (270)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>19.4 (71)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6.8 (25)</td>
</tr>
<tr>
<td>Online-only journal (no print version print version)</td>
<td>1.43</td>
<td>0.915</td>
<td>77.6 (284)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16.9 (62)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5.5 (20)</td>
</tr>
</tbody>
</table>

In terms of the print media, the majority of the respondents reported that they 'often/very often' publish in conference proceedings (66.7%). Only a very small percentage of respondents have 'never' published in conference proceedings (7.9%). In contrast, very few respondents 'often/very often' publish in a book or monograph (10.1%). When one compares publishing in scholarly international journals (overseas based) with locally based journals, the latter show a higher percentage (26.8%; 19.7%) on 'often/very often' basis. Respondents also show a higher percentage of 'never' publish in the overseas based international journals (38.5%) compared to locally based international journals (24.3%). However, the local print journals without international status attract more authors as the percentage of 'often/very often' publish is higher than the two previously mentioned types of journals (33.1%). The percentage of 'never' publish is also lower compared with the other two journals (18.3%).
The percentage of 'rarely/occasionally' is higher for all except in monograph type of publication i.e. from 41.8% to 48.9%. The lowest percentage of 'rarely/occasionally' is for 'publishing in the conference proceedings' (25.4%) (Figure 5.10).

Figure 5.10: Bar chart for publishing in print publication (N=366)

Note:
Q14a: Publish in conference proceedings
Q14b: Publish in local print journal with international status
Q14c: Publish in local print journal (other)
Q14d: Publish in international print journal
Q14e: Publish in print monograph/book
Table 5.21: Cross tabulation between publishing in print publications and adoption of online publishing (N=366)

<table>
<thead>
<tr>
<th>Type of print publication</th>
<th>Adoption</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Degree of Frequency % (Frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Never</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Publish in conference Proceedings</td>
<td>Adoption</td>
<td>4.20</td>
<td>0.946</td>
<td>13.8 (4)</td>
</tr>
<tr>
<td></td>
<td>Non-adoption</td>
<td>3.68</td>
<td>1.264</td>
<td>86.2 (25)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.84</td>
<td>1.200</td>
<td>100.0 (29)</td>
</tr>
<tr>
<td>Publish in local print journals (other)</td>
<td>Adoption</td>
<td>3.36</td>
<td>1.002</td>
<td>10.4 (7)</td>
</tr>
<tr>
<td></td>
<td>Non-adoption</td>
<td>2.70</td>
<td>1.242</td>
<td>89.6 (60)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.90</td>
<td>1.212</td>
<td>100.0 (67)</td>
</tr>
<tr>
<td>Publish in local print journals with international status</td>
<td>Adoption</td>
<td>3.18</td>
<td>1.127</td>
<td>13.5 (12)</td>
</tr>
<tr>
<td></td>
<td>Non-adoption</td>
<td>2.52</td>
<td>1.240</td>
<td>86.5 (77)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.72</td>
<td>1.243</td>
<td>100.0 (89)</td>
</tr>
<tr>
<td>Publish in foreign international print journals</td>
<td>Adoption</td>
<td>3.05</td>
<td>1.323</td>
<td>12.8 (18)</td>
</tr>
<tr>
<td></td>
<td>Non-adoption</td>
<td>2.01</td>
<td>1.168</td>
<td>87.2 (123)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.32</td>
<td>1.305</td>
<td>100.0 (141)</td>
</tr>
<tr>
<td>Publish in print monograph/book</td>
<td>Adoption</td>
<td>2.46</td>
<td>1.139</td>
<td>17.8 (27)</td>
</tr>
<tr>
<td></td>
<td>Non-adoption</td>
<td>1.88</td>
<td>1.028</td>
<td>82.2 (125)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.05</td>
<td>1.094</td>
<td>100.0 (152)</td>
</tr>
</tbody>
</table>

Note: n_adoption = 110; n_non-adoption = 256, Std dev. : Standard deviation;

Table 5.21 illustrates that the highest online publishing adoption is shown by the respondents who 'often' publish in foreign international print journals (58.3%), who also have the lowest non-adoption compared to other type of print publication medium (41.7%). The lowest adoption, on the other hand, is among the respondents who never publish in a local print journal, where is also recorded the highest non-adoption (89.6%). Therefore it could be assumed that people who have never publish their research results have a higher non-adoption of online publishing than those who do publish.
### Table 5.22: Chi-square test for publishing in print publications

<table>
<thead>
<tr>
<th>Chi-Square Test</th>
<th>Publishing in print publications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Publish in conference Proceedings</td>
</tr>
<tr>
<td>( \chi^2 )</td>
<td>16.369**</td>
</tr>
<tr>
<td>(df, p)</td>
<td>(2, 0.005)</td>
</tr>
<tr>
<td>(r, p)</td>
<td>(0.211, 0.005)</td>
</tr>
</tbody>
</table>

Note: df: degree of freedom, p: observed significance;  
\( r \): Correlation, **: Test is significant at 0.01 level (2 tailed)

Table 5.22 illustrated the chi-square test on each item that shows the adoption of online publishing has a significant relationship with publishing in print publications, as all items indicated observed significant values smaller than level of significance \( \alpha = 0.05 \). There is a range from small to medium strength of correlation, where publishing in "foreign international print journals" shows a stronger association with adoption of publishing in online journals compared to other publication activities \( r = 0.362 \).

### Language of articles

This section of the questionnaire seeks to find the number of articles written by the respondents in the five years from 1998 to 2003 based on the language used. The maximum articles written among the respondents in the English language is 150 articles, with a mean of 12.11. The number of articles written in Malay is lower than in English, with the maximum number of articles written 45 and the standard deviation 5.717. Articles written in other languages are very small in number (Table 5.23).
Based on the frequency table below (Table 5.24), 11.4% of the respondents have not written anything. The majority of respondents (50.3%) wrote between 1-9 articles in the English language. The smallest group of the respondents (2.2%) wrote between 40-49 articles in the English language within a five-year period.

Table 5.24: Articles written in English (N = 368)

<table>
<thead>
<tr>
<th>Number of Articles Written</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not writing at all</td>
<td>42</td>
<td>11.4</td>
</tr>
<tr>
<td>1 - 9 articles</td>
<td>185</td>
<td>50.3</td>
</tr>
<tr>
<td>10 - 19 articles</td>
<td>79</td>
<td>21.5</td>
</tr>
<tr>
<td>20 - 29 articles</td>
<td>25</td>
<td>6.8</td>
</tr>
<tr>
<td>30 - 39 articles</td>
<td>14</td>
<td>3.8</td>
</tr>
<tr>
<td>40 - 49 articles</td>
<td>8</td>
<td>2.2</td>
</tr>
<tr>
<td>50 &amp; more articles</td>
<td>15</td>
<td>4.1</td>
</tr>
<tr>
<td>Total</td>
<td>368</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The number respondents who do not write at all is higher for the Malay language (56.3%) compared to English (11.4%). While the number of respondents who wrote between 1-9 articles was higher (34.8%) than any other number of articles written, the percentage is smaller for the English language (50.3%); 21.5% wrote 10-19 articles in
English as compared to 6.5% in Malay language. The percentage dwindles as the number of articles written goes up for both languages, with total in the Malay language smaller than in the English language (Table 5.25).

Table 5.25: Articles written in the Malay language (N= 368)

<table>
<thead>
<tr>
<th>Numbers Articles Written</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not writing at all</td>
<td>207</td>
<td>56.3</td>
</tr>
<tr>
<td>1 - 9 articles</td>
<td>128</td>
<td>34.8</td>
</tr>
<tr>
<td>10 - 19 articles</td>
<td>24</td>
<td>6.5</td>
</tr>
<tr>
<td>20 - 29 articles</td>
<td>5</td>
<td>1.4</td>
</tr>
<tr>
<td>30 - 39 articles</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>40 - 49 articles</td>
<td>3</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>368</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Table 5.26: Correlation between language used in writing articles and adoption of publishing in online journals (n=368)

<table>
<thead>
<tr>
<th></th>
<th>Online attitude</th>
<th>Arabic</th>
<th>Chinese</th>
<th>English</th>
<th>Malay</th>
<th>Tamil</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point-biserial</td>
<td>1</td>
<td>-0.056</td>
<td>-0.034</td>
<td>0.164**</td>
<td>0.087</td>
<td>-0.068</td>
<td>-0.032</td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
<td>286 368</td>
<td>002 368</td>
<td>002 365</td>
<td>002 365</td>
<td>095 368</td>
<td>095 368</td>
<td>539 368</td>
</tr>
<tr>
<td>N</td>
<td>368 368</td>
<td>368 368</td>
<td>368 368</td>
<td>368 368</td>
<td>368 368</td>
<td>368 368</td>
<td>368 368</td>
</tr>
</tbody>
</table>

Since point-biserial correlation coefficient, $r_{pb} = 0.164$ with $p = 0.002$ is smaller than $\alpha = 0.05$, this proved that writing English language articles has a relationship with the respondent's adoption of online publishing. However, the strength of correlation is small (Cohen, 1988).
Publishing factors

The 'perceived reputation' and 'impact factor' of a journal are considered by a large number of respondents as 'very important' (56.9% and 48.3%) and 'important' (40.0% and 43.9%) factors that affected their decision on where to publish. Factors that could be associated with a wider audience, such as 'language of the journal', 'circulation of the journal' and a 'wide audience' also gained high percentages of 'very important' and 'important'. The factor least considered as 'very important' when considering where to publish is the 'inclusion of video or sound' (5.8%).

The responses that consider 'availability of print version', 'availability of online version', and 'availability of both print and online version' is important do not show significant differences. In fact, factors that are associated only with online publishing, such as 'inclusion of video or sound', and 'inclusion of manipulable content', show the lowest percentages of very important (5.8% and 7.8% respectively) and important (16.7% and 24.4% respectively) responses.

It also appears that the type of publisher, whether 'non-profit' or 'commercial' publisher, does not matter very much to respondents, as the percentages show, i.e. 'very important' (17.2% and 7.8%) and 'important' (28.3% and 38.1%). It is also noteworthy that the 'price of the journals' is also not considered by many respondents as very important (15.0%) and important (30.6%) factor when considering where to publish. In contrast 43.3% of respondents consider it as a 'not very important' factor (Table 5.27).
Table 5.27: Important factors when considering where to publish (N = 360)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Not at all important</th>
<th>Not very important</th>
<th>Important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived reputation of the journal</td>
<td>3.39</td>
<td>0.663</td>
<td>0.6 (2)</td>
<td>2.5 (9)</td>
<td>40.0 (144)</td>
<td>56.9 (205)</td>
</tr>
<tr>
<td>Impact factor of the journal</td>
<td>3.39</td>
<td>0.791</td>
<td>1.4 (5)</td>
<td>2.5 (9)</td>
<td>3.8 (152)</td>
<td>40.9 (147)</td>
</tr>
<tr>
<td>Publication speed</td>
<td>3.34</td>
<td>0.708</td>
<td>2.5 (9)</td>
<td>4.6 (23)</td>
<td>46.4 (167)</td>
<td>44.7 (161)</td>
</tr>
<tr>
<td>Language of the journal</td>
<td>3.34</td>
<td>0.729</td>
<td>2.2 (8)</td>
<td>8.6 (31)</td>
<td>41.9 (151)</td>
<td>47.2 (170)</td>
</tr>
<tr>
<td>Circulation of the journal</td>
<td>3.29</td>
<td>0.724</td>
<td>1.9 (7)</td>
<td>10.0 (36)</td>
<td>45.0 (162)</td>
<td>43.1 (155)</td>
</tr>
<tr>
<td>Wide audience</td>
<td>3.12</td>
<td>0.766</td>
<td>3.1 (11)</td>
<td>14.7 (53)</td>
<td>49.2 (177)</td>
<td>33.1 (119)</td>
</tr>
<tr>
<td>Linking from citation to cited articles</td>
<td>3.24</td>
<td>0.749</td>
<td>2.8 (10)</td>
<td>10.6 (38)</td>
<td>46.7 (168)</td>
<td>40.0 (144)</td>
</tr>
<tr>
<td>Articles are published as soon as they are finalized</td>
<td>3.14</td>
<td>0.737</td>
<td>3.1 (11)</td>
<td>11.9 (43)</td>
<td>53.1 (191)</td>
<td>31.9 (115)</td>
</tr>
<tr>
<td>Availability of print version</td>
<td>3.13</td>
<td>0.817</td>
<td>3.9 (14)</td>
<td>15.8 (57)</td>
<td>43.3 (156)</td>
<td>36.9 (133)</td>
</tr>
<tr>
<td>Ability of author to retain copyright</td>
<td>3.08</td>
<td>0.900</td>
<td>5.8 (21)</td>
<td>19.2 (69)</td>
<td>36.1 (130)</td>
<td>38.9 (140)</td>
</tr>
<tr>
<td>Availability of an online version</td>
<td>3.05</td>
<td>0.836</td>
<td>4.4 (16)</td>
<td>19.2 (69)</td>
<td>43.3 (156)</td>
<td>33.1 (119)</td>
</tr>
<tr>
<td>Availability of both print and online version</td>
<td>3.05</td>
<td>0.828</td>
<td>4.2 (15)</td>
<td>19.4 (70)</td>
<td>43.9 (158)</td>
<td>32.5 (117)</td>
</tr>
<tr>
<td>Nationality of the journal</td>
<td>2.91</td>
<td>0.894</td>
<td>8.1 (29)</td>
<td>20.8 (75)</td>
<td>43.6 (157)</td>
<td>27.5 (99)</td>
</tr>
<tr>
<td>Back volumes are available free of charge</td>
<td>2.80</td>
<td>0.894</td>
<td>7.5 (27)</td>
<td>29.2 (105)</td>
<td>38.9 (140)</td>
<td>24.4 (88)</td>
</tr>
<tr>
<td>Long-term preservation of back volumes is guaranteed</td>
<td>2.79</td>
<td>0.826</td>
<td>6.4 (23)</td>
<td>27.2 (98)</td>
<td>46.9 (169)</td>
<td>19.4 (70)</td>
</tr>
<tr>
<td>Inclusion of additional data</td>
<td>2.79</td>
<td>0.795</td>
<td>5.3 (19)</td>
<td>28.1 (101)</td>
<td>48.6 (175)</td>
<td>18.1 (65)</td>
</tr>
<tr>
<td>Articles are published as soon as they are accepted, even if not finalized</td>
<td>2.76</td>
<td>0.817</td>
<td>4.4 (16)</td>
<td>36.1 (130)</td>
<td>38.9 (140)</td>
<td>20.6 (74)</td>
</tr>
<tr>
<td>Non-profit publisher</td>
<td>2.49</td>
<td>0.932</td>
<td>13.6 (49)</td>
<td>40.8 (147)</td>
<td>28.3 (102)</td>
<td>17.2 (62)</td>
</tr>
<tr>
<td>Price of the journal</td>
<td>2.49</td>
<td>0.880</td>
<td>11.1 (40)</td>
<td>43.3 (156)</td>
<td>30.6 (110)</td>
<td>15.0 (54)</td>
</tr>
<tr>
<td>Inclusion of colour images</td>
<td>2.44</td>
<td>0.802</td>
<td>9.4 (34)</td>
<td>47.5 (171)</td>
<td>32.8 (118)</td>
<td>10.3 (37)</td>
</tr>
<tr>
<td>Commercial publisher</td>
<td>2.41</td>
<td>0.806</td>
<td>12.2 (45)</td>
<td>41.7 (150)</td>
<td>38.1 (137)</td>
<td>7.8 (28)</td>
</tr>
<tr>
<td>Inclusion of manipulable content (software, simulations etc.)</td>
<td>2.23</td>
<td>0.826</td>
<td>17.5 (63)</td>
<td>50.3 (181)</td>
<td>24.4 (88)</td>
<td>7.8 (28)</td>
</tr>
<tr>
<td>Inclusion of video or sound</td>
<td>2.07</td>
<td>0.777</td>
<td>20.8 (75)</td>
<td>56.7 (204)</td>
<td>16.7 (60)</td>
<td>5.8 (21)</td>
</tr>
</tbody>
</table>
All factors except ‘perceived reputation of the journal’ show that the non-adoption attitude is higher than the adoption. ‘Perceived reputation of the journal’ reported as having highest adoption (50%) on ‘not at all important’. The ‘availability of print journal’ response received higher consideration (mean 3.14) compared to ‘availability of an online version’ (mean 3.05). The adoption of online publishing among respondents who consider ‘availability of online version’ as very important (33.6%) has almost similar score as those who consider ‘availability of both print and online version’ very important (34.2%) (Table 5.28)

Table 5.28: Cross tabulation of important factors when considering where to publish and adoption of online publishing (N=360)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Adoption</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived reputation of the journal</td>
<td>Adoption</td>
<td>3.55</td>
<td>0.585</td>
<td>60.0 (1)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.53</td>
<td>0.575</td>
<td>70.0 (1)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.53</td>
<td>0.577</td>
<td>100.0 (2)</td>
</tr>
<tr>
<td>Impact factor of the journal</td>
<td>Adoption</td>
<td>3.49</td>
<td>0.647</td>
<td>25.0 (1)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.35</td>
<td>0.668</td>
<td>75.0 (3)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.39</td>
<td>0.663</td>
<td>100.0 (4)</td>
</tr>
<tr>
<td>Publication speed</td>
<td>Adoption</td>
<td>3.41</td>
<td>0.697</td>
<td>20.0 (1)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.31</td>
<td>0.703</td>
<td>80.0 (4)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.34</td>
<td>0.701</td>
<td>100.0 (5)</td>
</tr>
<tr>
<td>Language of the journal</td>
<td>Adoption</td>
<td>3.40</td>
<td>0.722</td>
<td>22.2 (2)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.30</td>
<td>0.701</td>
<td>77.8 (7)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.33</td>
<td>0.708</td>
<td>100.0 (9)</td>
</tr>
<tr>
<td>Circulation of the journal</td>
<td>Adoption</td>
<td>3.36</td>
<td>0.727</td>
<td>25.0 (2)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.32</td>
<td>0.732</td>
<td>75.0 (6)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.34</td>
<td>0.729</td>
<td>100.0 (8)</td>
</tr>
<tr>
<td>Wide audience</td>
<td>Adoption</td>
<td>3.36</td>
<td>0.674</td>
<td>14.3 (1)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.26</td>
<td>0.745</td>
<td>85.7 (6)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.29</td>
<td>0.724</td>
<td>100.0 (7)</td>
</tr>
<tr>
<td>Linking from citation to cited articles</td>
<td>Adoption</td>
<td>3.25</td>
<td>0.735</td>
<td>18.2 (2)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.07</td>
<td>0.774</td>
<td>81.8 (9)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.12</td>
<td>0.766</td>
<td>100.0 (11)</td>
</tr>
<tr>
<td>Articles are published as soon as they are finalized</td>
<td>Adoption</td>
<td>3.17</td>
<td>0.739</td>
<td>20.0 (2)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.27</td>
<td>0.753</td>
<td>80.0 (8)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.24</td>
<td>0.749</td>
<td>100.0 (10)</td>
</tr>
<tr>
<td>Availability of print version</td>
<td>Adoption</td>
<td>3.17</td>
<td>0.764</td>
<td>27.3 (3)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.13</td>
<td>0.726</td>
<td>72.7 (8)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.14</td>
<td>0.737</td>
<td>100.0 (11)</td>
</tr>
</tbody>
</table>

Note: n_adoption = 109; n_non-adopt=251; Std Dev. Standard Deviation; p observed significance; NS: Test is not significant at 0.05 level
Table 5.28: Cross tabulation of important factors when considering where to publish and adoption of online publishing (N=360) (Continued)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Adoption</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Degree of importance</th>
<th>% (frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not at all Important</td>
<td>Not very Important</td>
</tr>
<tr>
<td>Inclusion of journal in abstracting &amp; indexing services</td>
<td>Adoption</td>
<td>0.780</td>
<td>14.3 (2)</td>
<td>35.1 (20)</td>
<td>30.1 (47)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>0.834</td>
<td>85.7 (12)</td>
<td>64.9 (27)</td>
<td>69.9 (109)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>0.817</td>
<td>100.0 (14)</td>
<td>100.0 (57)</td>
<td>100.0 (156)</td>
</tr>
<tr>
<td>Ability of author to retain copyright</td>
<td>Adoption</td>
<td>0.866</td>
<td>19.0 (4)</td>
<td>39.1 (27)</td>
<td>30.8 (40)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>0.915</td>
<td>81.0 (17)</td>
<td>60.9 (42)</td>
<td>69.2 (90)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>0.900</td>
<td>100.0 (21)</td>
<td>100.0 (69)</td>
<td>100.0 (120)</td>
</tr>
<tr>
<td>Availability of online version</td>
<td>Adoption</td>
<td>0.791</td>
<td>18.8 (3)</td>
<td>26.1 (18)</td>
<td>30.8 (48)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>0.853</td>
<td>81.2 (13)</td>
<td>73.9 (31)</td>
<td>69.2 (108)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>0.836</td>
<td>100.0 (16)</td>
<td>100.0 (69)</td>
<td>100.0 (126)</td>
</tr>
<tr>
<td>Availability of both print and online version</td>
<td>Adoption</td>
<td>0.806</td>
<td>20.0 (3)</td>
<td>28.6 (20)</td>
<td>29.1 (46)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>0.837</td>
<td>80.0 (12)</td>
<td>71.4 (30)</td>
<td>70.9 (112)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>0.828</td>
<td>100.0 (15)</td>
<td>100.0 (70)</td>
<td>100.0 (158)</td>
</tr>
<tr>
<td>Nationality of the journal</td>
<td>Adoption</td>
<td>0.880</td>
<td>31.0 (9)</td>
<td>24.0 (18)</td>
<td>33.1 (52)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>0.901</td>
<td>69.0 (20)</td>
<td>76.0 (57)</td>
<td>66.9 (105)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>0.894</td>
<td>100.0 (29)</td>
<td>100.0 (75)</td>
<td>100.0 (157)</td>
</tr>
<tr>
<td>Back volumes are available free of charge</td>
<td>Adoption</td>
<td>0.915</td>
<td>25.9 (7)</td>
<td>34.3 (36)</td>
<td>25.7 (36)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>0.887</td>
<td>74.1 (20)</td>
<td>65.7 (69)</td>
<td>74.3 (104)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>0.894</td>
<td>100.0 (27)</td>
<td>100.0 (105)</td>
<td>100.0 (140)</td>
</tr>
<tr>
<td>Long-term preservation of back volumes is guaranteed</td>
<td>Adoption</td>
<td>0.843</td>
<td>34.8 (8)</td>
<td>29.6 (29)</td>
<td>30.2 (51)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>0.820</td>
<td>65.2 (15)</td>
<td>70.4 (69)</td>
<td>69.8 (118)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>0.826</td>
<td>100.0 (23)</td>
<td>100.0 (98)</td>
<td>100.0 (169)</td>
</tr>
<tr>
<td>Inclusion of additional data</td>
<td>Adoption</td>
<td>0.739</td>
<td>15.8 (3)</td>
<td>28.7 (29)</td>
<td>32.6 (57)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>0.818</td>
<td>84.2 (16)</td>
<td>73.1 (72)</td>
<td>67.4 (118)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>0.795</td>
<td>100.0 (19)</td>
<td>100.0 (101)</td>
<td>100.0 (175)</td>
</tr>
<tr>
<td>Articles are published as soon as they are accepted, even if not finalized</td>
<td>Adoption</td>
<td>0.780</td>
<td>31.2 (5)</td>
<td>33.8 (44)</td>
<td>27.1 (38)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>0.834</td>
<td>68.8 (11)</td>
<td>66.2 (86)</td>
<td>72.9 (102)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>0.817</td>
<td>100.0 (16)</td>
<td>100.0 (130)</td>
<td>100.0 (140)</td>
</tr>
<tr>
<td>Non-profit publisher</td>
<td>Adoption</td>
<td>1.000</td>
<td>28.6 (14)</td>
<td>28.6 (42)</td>
<td>25.5 (26)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>0.899</td>
<td>71.4 (35)</td>
<td>71.4 (105)</td>
<td>74.5 (76)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>0.932</td>
<td>100.0 (49)</td>
<td>100.0 (147)</td>
<td>100.0 (102)</td>
</tr>
<tr>
<td>Price of the journal</td>
<td>Adoption</td>
<td>0.878</td>
<td>25.0 (10)</td>
<td>33.3 (52)</td>
<td>26.4 (29)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>0.883</td>
<td>75.0 (30)</td>
<td>66.7 (104)</td>
<td>73.6 (81)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>0.880</td>
<td>100.0 (40)</td>
<td>100.0 (156)</td>
<td>100.0 (110)</td>
</tr>
<tr>
<td>Inclusion of colour images</td>
<td>Adoption</td>
<td>0.856</td>
<td>35.3 (12)</td>
<td>27.5 (47)</td>
<td>30.5 (36)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>0.778</td>
<td>64.7 (22)</td>
<td>72.5 (124)</td>
<td>69.5 (82)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>0.802</td>
<td>100.0 (34)</td>
<td>100.0 (171)</td>
<td>100.0 (118)</td>
</tr>
</tbody>
</table>

Note: \[ n_{adop} = 199, \quad n_{non-adop} = 251 \]; Std Dev. : Standard Deviation, p observed significance; NS Test is not significant at 0.05 level
Table 5.28: Cross tabulation of important factors when considering where to publish and adoption of online publishing (N=360) (Continued)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Adoption</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Degree of importance %, (frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not at all important</td>
</tr>
<tr>
<td>Commercial publisher</td>
<td>Adoption</td>
<td>2.39</td>
<td>0.817</td>
<td>31 1 (14)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>2.42</td>
<td>0.803</td>
<td>68 9 (31)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.41</td>
<td>0.806</td>
<td>100 0 (45)</td>
</tr>
<tr>
<td>Inclusion of manipulatable content (software, simulations etc)</td>
<td>Adoption</td>
<td>2.25</td>
<td>0.884</td>
<td>36 5 (23)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>2.22</td>
<td>0.801</td>
<td>63 5 (40)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.23</td>
<td>0.826</td>
<td>100 0 (53)</td>
</tr>
<tr>
<td>Inclusion of video or sound</td>
<td>Adoption</td>
<td>2.11</td>
<td>0.809</td>
<td>32 0 (24)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>2.06</td>
<td>0.764</td>
<td>68 0 (51)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.07</td>
<td>0.777</td>
<td>100 0 (75)</td>
</tr>
</tbody>
</table>

Note: n_adoption = 109, n_non-adoption = 251, Std Dev Standard Deviation, p: observed significance; NS Test is not significant at 0.05 level

Peer review statements

The majority of the respondents agree with the statements that ‘peer review should be speeded up by using electronic communications’ (91.1%), ‘I prefer to submit articles that maintain formal peer review’ (91.1%), and ‘traditional peer review is still relevant for online journals’ (80.0%). From the data, it could be said that respondents prefer the conventional way of reviewing, but wish to take advantage of the technology to quicken the process of communication in the reviewing process.

The statement least agreed by the respondents is ‘open review for online journal should replace traditional peer review’ (43.9%). Quite a high percentages take a neutral stand on the statements ‘public commentary on electronic preprints runs alongside traditional peer review’ (34.7%), ‘open review for online journals should replace traditional peer review’ (33.9%), and ‘public post-publication commentary should supplement traditional peer review’ (33.1%). As respondents have not decided
on issues of open review by taking a neutral stance, this may indicate that respondents are taking on the attitude of 'wait and see' (Table 5.29).

Table 5.29: Frequency of peer review statements (N=360)

<table>
<thead>
<tr>
<th>Peer review statement</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Degree of Agreement (% , frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Disagree</td>
</tr>
<tr>
<td>Peer review should speeded up by using electronic communications</td>
<td>4.37</td>
<td>0.659</td>
<td>0.6 (2)</td>
</tr>
<tr>
<td>I prefer to submit article that maintain formal peer review</td>
<td>4.27</td>
<td>0.648</td>
<td>1.1 (4)</td>
</tr>
<tr>
<td>Traditional peer review still relevant for online journal</td>
<td>3.98</td>
<td>0.750</td>
<td>2.8 (10)</td>
</tr>
<tr>
<td>Reviewer's identity of online journal should be made public</td>
<td>3.61</td>
<td>1.050</td>
<td>13.9 (50)</td>
</tr>
<tr>
<td>Public commentary on electronic preprint run alongside traditional peer review</td>
<td>3.63</td>
<td>0.821</td>
<td>7.5 (27)</td>
</tr>
<tr>
<td>Identity of the reviewer for print journal should be made public</td>
<td>3.57</td>
<td>1.051</td>
<td>15.0 (54)</td>
</tr>
<tr>
<td>Public post-publication commentary should supplement traditional peer review</td>
<td>3.51</td>
<td>0.844</td>
<td>10.3 (37)</td>
</tr>
<tr>
<td>Open review for online journal should replace traditional peer review</td>
<td>3.27</td>
<td>1.007</td>
<td>22.2 (80)</td>
</tr>
</tbody>
</table>

Note: std dev. : standard deviation;

It is interesting to note that respondents who disagree with the statement 'public commentary on electronic preprint runs alongside traditional peer review' have higher adoption of online publishing (44.4%). On the other hand, the respondents who disagree on 'peer review should be speeded up by using electronic communications' showed the highest percentage of non-adoption (100.0%). This shows that the respondents are still not convinced with the capability of new medium and prefer the traditional way of communication with peer review and the conventional way of reviewing (Table 5.30).
Table 5.30: Cross tabulation of peer review statements and adoption of online publishing (N=360)

<table>
<thead>
<tr>
<th>Peer review statement</th>
<th>Adoption</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Degree of Agreement (%)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Disagree</td>
<td>Neutral</td>
</tr>
<tr>
<td>Peer review should speeded up by using electronic communications</td>
<td>Adoption</td>
<td>4.49</td>
<td>0.618</td>
<td>0.0 (0)</td>
<td>23.3 (7)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.42</td>
<td>0.672</td>
<td>100.0 (2)</td>
<td>76.7 (23)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.37</td>
<td>0.659</td>
<td>100.0 (2)</td>
<td>100.0 (30)</td>
</tr>
<tr>
<td>I prefer to submit article that maintain formal peer review</td>
<td>Adoption</td>
<td>4.34</td>
<td>0.641</td>
<td>25.0 (1)</td>
<td>25.0 (7)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>4.24</td>
<td>0.650</td>
<td>75.0 (3)</td>
<td>75.0 (21)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.27</td>
<td>0.648</td>
<td>100.0 (4)</td>
<td>100.0 (28)</td>
</tr>
<tr>
<td>Traditional peer review still relevant for online journal</td>
<td>Adoption</td>
<td>4.10</td>
<td>0.757</td>
<td>0.0 (3)</td>
<td>22.6 (14)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.93</td>
<td>0.743</td>
<td>70.0 (7)</td>
<td>77.4 (48)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.98</td>
<td>0.750</td>
<td>100.0 (10)</td>
<td>100.0 (62)</td>
</tr>
<tr>
<td>Reviewer' identity of online journal should made public</td>
<td>Adoption</td>
<td>3.62</td>
<td>1.112</td>
<td>32.0 (16)</td>
<td>32.7 (32)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.60</td>
<td>1.024</td>
<td>68.0 (34)</td>
<td>67.3 (66)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.61</td>
<td>1.050</td>
<td>100.0 (50)</td>
<td>100.0 (98)</td>
</tr>
<tr>
<td>Public commentary on electronic preprint run alongside traditional peer review</td>
<td>Adoption</td>
<td>3.60</td>
<td>0.757</td>
<td>44.4 (12)</td>
<td>31.2 (39)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.65</td>
<td>0.783</td>
<td>55.6 (15)</td>
<td>68.8 (86)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.63</td>
<td>0.821</td>
<td>100.0 (27)</td>
<td>100.0 (125)</td>
</tr>
<tr>
<td>Identity of the reviewer for print journal should be made public</td>
<td>Adoption</td>
<td>3.57</td>
<td>1.117</td>
<td>33.3 (18)</td>
<td>29.3 (29)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.57</td>
<td>1.023</td>
<td>66.7 (36)</td>
<td>70.7 (70)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.57</td>
<td>1.051</td>
<td>100.0 (54)</td>
<td>100.0 (99)</td>
</tr>
<tr>
<td>Public post-publication commentary should supplement traditional peer review</td>
<td>Adoption</td>
<td>3.45</td>
<td>0.918</td>
<td>37.8 (14)</td>
<td>34.5 (41)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.53</td>
<td>0.811</td>
<td>62.2 (23)</td>
<td>65.5 (78)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.51</td>
<td>0.844</td>
<td>100.0 (37)</td>
<td>100.0 (119)</td>
</tr>
<tr>
<td>Open review for online journal should replace traditional peer review</td>
<td>Adoption</td>
<td>3.15</td>
<td>1.079</td>
<td>35.0 (28)</td>
<td>33.6 (41)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.33</td>
<td>0.971</td>
<td>65.0 (52)</td>
<td>66.4 (81)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.27</td>
<td>1.007</td>
<td>100.0 (80)</td>
<td>100.0 (122)</td>
</tr>
</tbody>
</table>

Note: n_adoption = 109; n_non-adopt = 251, Std dev = standard deviation, df. degree of freedom, p = observed significance; NS: Test is not significant at 0.05 level
Copyright issues

The statement 'copyright should be transferred to publisher, personal redistribution rights retained by author' received the highest percentage of responses (38.1%) among the five copyright-related statements listed. The statement 'copyright retained by author; full publishing rights granted to publisher' is the second highest response (36.4%). Somehow the statements 'copyright retained by author's employer; full publishing rights granted to publisher' and 'copyright retained by author's employer; limited publishing rights granted to publisher' were the responses made by the same number of respondents (5.8%) (Table 5.31)

Table 5.31: Frequency of copyright statement (N=360)

<table>
<thead>
<tr>
<th>Copyright statement</th>
<th>Total % (frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copyright transferred to publisher, personal distribution rights retained by author</td>
<td>38.1 (137)</td>
</tr>
<tr>
<td>Copyright retained by author; full publishing rights granted to publisher</td>
<td>36.4 (131)</td>
</tr>
<tr>
<td>Copyright retained by author, limited publishing rights granted to publisher</td>
<td>13.9 (50)</td>
</tr>
<tr>
<td>Copyright retained by author's employer; full publishing rights granted to publisher</td>
<td>5.8 (21)</td>
</tr>
<tr>
<td>Copyright retained by author's employer; limited publishing rights granted to publisher</td>
<td>5.8 (21)</td>
</tr>
<tr>
<td>Total</td>
<td>100 (360)</td>
</tr>
</tbody>
</table>

The highest non-adoption attitude (81.0%) came from the respondents who chose the statement 'copyright retained by author’s employer; limited publishing rights granted to publisher’. The highest adoption attitude (42.9%) is shown by the respondents who chose ‘copyright retained by author’s employer; full publishing rights granted to publisher’ statement. Respondents who chose ‘copyrights should be retained by
author' are shown to have a lower adoption attitude towards online publishing (Table 5.32)

Table 5.32: Cross tabulation between adoption and copyright statements (N=360)

<table>
<thead>
<tr>
<th>Copyright statement</th>
<th>Non-adoption % (frequency)</th>
<th>Adoption % (frequency)</th>
<th>Total % (frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copyright transferred to publisher; personal distribution rights retained by author</td>
<td>73 0 (100)</td>
<td>27 0 (37)</td>
<td>100 (137)</td>
</tr>
<tr>
<td>Copyright retained by author; full publishing rights granted to publisher</td>
<td>69 5 (91)</td>
<td>30.5 (40)</td>
<td>100 (131)</td>
</tr>
<tr>
<td>Copyright retained by author; limited publishing rights granted to publisher</td>
<td>62 0 (31)</td>
<td>38.0 (19)</td>
<td>100 (50)</td>
</tr>
<tr>
<td>Copyright retained by author's employer; full publishing rights granted to publisher</td>
<td>57.1 (12)</td>
<td>42 9 (9)</td>
<td>100 (21)</td>
</tr>
<tr>
<td>Copyright retained by author's employer; limited publishing rights granted to publisher</td>
<td>81 0 (17)</td>
<td>19 0 (4)</td>
<td>100 (21)</td>
</tr>
</tbody>
</table>

Electronic preprint archives

The table below (Table 5.33) shows that 277 of the respondents agree that an electronic preprint archive is important in their subject area, though only 37 have actually deposited in electronic preprint archives. For both statements, the non-adoption percentage is higher than the adoption. It is interesting to note that respondents who do not consider an electronic preprint archive important have a higher adoption of online publishing (32.1%) compared to respondents who responded yes (29.6%). On the other hand, respondents who deposited in electronic preprint archives still have a high percentage of non-adoption attitudes towards online
publishing (67.6%). This might be due to the preference of the medium, where respondents may publish in online journals but not in preprint archives.

Table 5.33: Cross tabulation between electronic preprint archives and adoption of online publishing (N=361)

| Statement                                      | Adoption % (frequency) | Agreement
<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>(\chi^2) (df, p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are electronic preprint archives important in your subject area</td>
<td>Adoption</td>
<td>29.6 (82)</td>
<td>32.1 (27)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>70.4 (195)</td>
<td>67.9 (57)</td>
</tr>
<tr>
<td>Total</td>
<td>100.0 (277)</td>
<td>100.0 (84)</td>
<td>NS</td>
</tr>
<tr>
<td>Do you deposit electronic preprints in an archive</td>
<td>Adoption</td>
<td>32.4 (12)</td>
<td>29.9 (97)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>67.6 (25)</td>
<td>70.1 (227)</td>
</tr>
<tr>
<td>Total</td>
<td>100.0 (37)</td>
<td>100.0 (324)</td>
<td>NS</td>
</tr>
</tbody>
</table>

Note: \(n_{adopt}=109, n_{non-adopt}=251\), df degree of freedom, \(p\) observed significance; NS Test is not significant at 0.05 level

Based on the chi-square test, these two variables have no significant relationship with adoption of online publishing. Both values of observed significance are found to be greater than \(\alpha = 0.05\).

When respondents were asked to name the preprint archives where they have deposited their articles, they did not indicate the actual preprint archive but online publishers or aggregators instead as shown in the table below. Nineteen respondents who said that they have deposited articles in the preprint archives do not mention specifically where (Table 5.34).
Table 5.34: List of place where respondents deposited the electronic preprint (N=368)

<table>
<thead>
<tr>
<th>Place where preprint articles deposited</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerald, Ebscohost, Science Direct</td>
<td>5</td>
<td>27.8</td>
</tr>
<tr>
<td>Employer's home page</td>
<td>1</td>
<td>5.5</td>
</tr>
<tr>
<td>Endnote</td>
<td>1</td>
<td>5.5</td>
</tr>
<tr>
<td>ERIC</td>
<td>1</td>
<td>5.5</td>
</tr>
<tr>
<td>IEEE</td>
<td>1</td>
<td>5.5</td>
</tr>
<tr>
<td>Internal server</td>
<td>1</td>
<td>5.5</td>
</tr>
<tr>
<td>Kluwer</td>
<td>1</td>
<td>5.5</td>
</tr>
<tr>
<td>My documents</td>
<td>1</td>
<td>5.5</td>
</tr>
<tr>
<td>PDF</td>
<td>2</td>
<td>11.1</td>
</tr>
<tr>
<td>Personal</td>
<td>2</td>
<td>11.1</td>
</tr>
<tr>
<td>Post grad programs &amp; IEEE activities</td>
<td>1</td>
<td>5.5</td>
</tr>
<tr>
<td>Web page</td>
<td>1</td>
<td>5.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Not stated: 19

Support factors

In general the majority of the respondents think that all the factors listed are important to persuade people to publish in online publications. However, the highest percentages of the respondents think that ‘recognition’ (96.1%) and ‘policy on online publication’ (91.6%) are the two factors most important to persuade people to publish in online publication. The lowest percentage of respondents (68.0%) consider ‘allocation of specific space’ to be important (Table 5.35)
Table 5.35: Factors persuading publication in online publication (N=356)

<table>
<thead>
<tr>
<th>Persuading factors</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Degree of Importance % (frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not Important</td>
</tr>
<tr>
<td>Recognition</td>
<td>3.51</td>
<td>0.612</td>
<td>3.9 (14)</td>
</tr>
<tr>
<td>Backup from institution</td>
<td>3.28</td>
<td>0.707</td>
<td>11.5 (41)</td>
</tr>
<tr>
<td>Policy on online publication</td>
<td>3.27</td>
<td>0.660</td>
<td>8.4 (21)</td>
</tr>
<tr>
<td>Subscription by library</td>
<td>3.24</td>
<td>0.700</td>
<td>12.1 (43)</td>
</tr>
<tr>
<td>Peer recommendation</td>
<td>3.22</td>
<td>0.674</td>
<td>10.7 (38)</td>
</tr>
<tr>
<td>Availability of funding</td>
<td>3.12</td>
<td>0.766</td>
<td>18.3 (65)</td>
</tr>
<tr>
<td>Direction from management</td>
<td>2.90</td>
<td>0.836</td>
<td>29.2 (104)</td>
</tr>
<tr>
<td>Allocation of specific space</td>
<td>2.86</td>
<td>0.889</td>
<td>32.0 (114)</td>
</tr>
</tbody>
</table>

Note. Std dev.: Standard deviation

Respondents who consider the 'availability of funding' as 'not important' have the highest adoption (33.8%) and lowest non-adoption of online publishing (66.2%) compared to other persuading factors for publication. The percentage of adoption for respondents who consider persuading factors are important is not very high though. There is no obvious difference in adoption attitude between respondents who choose persuading factors either as 'important' or 'not important' (Table 5.36).
Table 5.36: Cross tabulation between factors persuading to publish in online journals and adoption of online publishing (N=356)

<table>
<thead>
<tr>
<th>Persuading Factors</th>
<th>Adoption</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Degree of Importance</th>
<th>( \chi^2 ) (df, p)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not Important</td>
<td>Important</td>
</tr>
<tr>
<td>Recognition</td>
<td>Adoption</td>
<td>3.57</td>
<td>0.550</td>
<td>21.4 (3)</td>
<td>30.7 (105)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.48</td>
<td>0.636</td>
<td>78.6 (11)</td>
<td>69.3 (237)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.51</td>
<td>0.612</td>
<td>100.0 (14)</td>
<td>100.0 (342)</td>
</tr>
<tr>
<td>Backup from institution</td>
<td>Adoption</td>
<td>3.34</td>
<td>0.726</td>
<td>34.1 (14)</td>
<td>29.8 (94)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.25</td>
<td>0.698</td>
<td>65.9 (27)</td>
<td>70.2 (221)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.28</td>
<td>0.707</td>
<td>100.0 (41)</td>
<td>100.0 (315)</td>
</tr>
<tr>
<td>Policy on online publication</td>
<td>Adoption</td>
<td>3.31</td>
<td>0.648</td>
<td>30.0 (9)</td>
<td>30.4 (99)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.26</td>
<td>0.666</td>
<td>70.0 (21)</td>
<td>69.6 (227)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.27</td>
<td>0.660</td>
<td>100.0 (21)</td>
<td>100.0 (326)</td>
</tr>
<tr>
<td>Subscription by library</td>
<td>Adoption</td>
<td>3.31</td>
<td>0.690</td>
<td>27.9 (12)</td>
<td>30.7 (96)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.21</td>
<td>0.704</td>
<td>72.1 (31)</td>
<td>69.3 (217)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.24</td>
<td>0.700</td>
<td>100.0 (43)</td>
<td>100.0 (313)</td>
</tr>
<tr>
<td>Peer Recommendation</td>
<td>Adoption</td>
<td>3.32</td>
<td>0.609</td>
<td>21.1 (8)</td>
<td>31.4 (100)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.18</td>
<td>0.698</td>
<td>78.9 (30)</td>
<td>68.6 (218)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.22</td>
<td>0.674</td>
<td>100.0 (38)</td>
<td>100.0 (318)</td>
</tr>
<tr>
<td>Availability of funding</td>
<td>Adoption</td>
<td>3.14</td>
<td>0.779</td>
<td>33.8 (22)</td>
<td>29.6 (86)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>3.12</td>
<td>0.763</td>
<td>66.2 (43)</td>
<td>70.4 (205)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.12</td>
<td>0.766</td>
<td>100.0 (65)</td>
<td>100.0 (291)</td>
</tr>
<tr>
<td>Direction from Management</td>
<td>Adoption</td>
<td>2.94</td>
<td>0.899</td>
<td>33.7 (35)</td>
<td>29.0 (73)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>2.88</td>
<td>0.809</td>
<td>66.3 (69)</td>
<td>71.0 (179)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.90</td>
<td>0.836</td>
<td>100.0 (104)</td>
<td>100.0 (252)</td>
</tr>
<tr>
<td>Allocation of specific space</td>
<td>Adoption</td>
<td>2.88</td>
<td>0.862</td>
<td>30.7 (35)</td>
<td>30.2 (73)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>2.85</td>
<td>0.902</td>
<td>69.3 (79)</td>
<td>69.8 (169)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.86</td>
<td>0.889</td>
<td>100.0 (114)</td>
<td>100.0 (242)</td>
</tr>
</tbody>
</table>

Note: \( n_{adop} = 110; n_{non-adop} = 258 \); Std.dev.: Standard deviation, df: degree of freedom, \( p \): observed significance; \( r \): Correlation, ns: Test is not significant at 0.05 level (2 tailed)

Factors hindering

A large percentage of respondents agree that 'no funding to set up and maintain online publishing activities' is a hindering factor to publish online (68.3%). Other reasons are 'no technological know-how' (62.9%), 'copyright issues' (62.1%), and 'no recognition from institution' (60.1). 'No reason why should do it' is agreed by 30.6% (the lowest percentage) of respondents (Table 5.37)
Table 5.37: Hindering factors to online publishing (N= 356)

<table>
<thead>
<tr>
<th>Hindering factors</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Degree of agreement % (frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Disagree</td>
</tr>
<tr>
<td>No funding to setup and maintain online publishing activities</td>
<td>3.79</td>
<td>1.039</td>
<td>13.2 (47)</td>
</tr>
<tr>
<td>Copyright</td>
<td>3.69</td>
<td>1.123</td>
<td>15.4 (55)</td>
</tr>
<tr>
<td>No recognition from institution</td>
<td>3.65</td>
<td>1.123</td>
<td>18.0 (64)</td>
</tr>
<tr>
<td>No technological know-how</td>
<td>3.62</td>
<td>1.146</td>
<td>21.1 (75)</td>
</tr>
<tr>
<td>Perceived low quality</td>
<td>3.62</td>
<td>1.106</td>
<td>18.0 (64)</td>
</tr>
<tr>
<td>No support from institution</td>
<td>3.55</td>
<td>1.131</td>
<td>20.2 (72)</td>
</tr>
<tr>
<td>No suitable hardware available</td>
<td>3.38</td>
<td>1.175</td>
<td>26.7 (95)</td>
</tr>
<tr>
<td>No reason why should do it</td>
<td>2.92</td>
<td>1.165</td>
<td>37.9 (135)</td>
</tr>
</tbody>
</table>

Note: Std.dev.: Standard deviation

Respondents who disagree that there is 'no funding to set up and maintain online publishing activities' have the highest (46.8%) adoption of online publishing. The highest (77.3%) non-adoption came from the respondents who took the neutral stance on the statement that there is ‘no funding to set up and maintain online publishing activities’.

The corresponding chi-square test in which, $\chi^2 = 7.896$ with $p = 0.018$ is smaller than $\alpha = 0.05$, indicates that there is a relationship between respondent disagreeing with the statement ‘no funding to set up and maintain online publishing activities’ and adoption of online journal publishing ($r= 0.15$). Other hindering factors have no significant correlation with the adoption attitude (Table 5.38).
Table 5.38: Cross tabulation between hindering factors and adoption of online publishing (N= 356)

<table>
<thead>
<tr>
<th>Hindering factors</th>
<th>Adoption</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Degree of agreement % (frequency)</th>
<th>$\chi^2$ (df, p)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Disagree</td>
<td>Neutral</td>
</tr>
<tr>
<td>No funding to setup and maintain online publishing activities</td>
<td>Adoption</td>
<td>363</td>
<td>1.181</td>
<td>46.8 (22)</td>
<td>22.7 (15)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>386</td>
<td>0.965</td>
<td>53.2 (25)</td>
<td>77.3 (51)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>379</td>
<td>1.039</td>
<td>100.0 (47)</td>
<td>100.0 (66)</td>
</tr>
<tr>
<td>Copyright</td>
<td>Adoption</td>
<td>359</td>
<td>1.253</td>
<td>40.0 (2)</td>
<td>23.7 (19)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>373</td>
<td>1.062</td>
<td>60.0 (33)</td>
<td>76.3 (61)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>369</td>
<td>1.123</td>
<td>100.0 (55)</td>
<td>100.0 (80)</td>
</tr>
<tr>
<td>No recognition from institution</td>
<td>Adoption</td>
<td>369</td>
<td>1.149</td>
<td>29.7 (19)</td>
<td>26.9 (21)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>363</td>
<td>1.113</td>
<td>70.3 (45)</td>
<td>73.1 (57)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>365</td>
<td>1.123</td>
<td>100.0 (64)</td>
<td>100.0 (78)</td>
</tr>
<tr>
<td>No technological know-how</td>
<td>Adoption</td>
<td>348</td>
<td>1.249</td>
<td>38.7 (29)</td>
<td>31.6 (18)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>368</td>
<td>1.095</td>
<td>61.3 (46)</td>
<td>68.4 (39)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>362</td>
<td>1.146</td>
<td>100.0 (73)</td>
<td>100.0 (57)</td>
</tr>
<tr>
<td>Perceived low quality</td>
<td>Adoption</td>
<td>351</td>
<td>1.211</td>
<td>39.1 (25)</td>
<td>31.2 (25)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>367</td>
<td>1.056</td>
<td>60.9 (39)</td>
<td>68.8 (55)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>362</td>
<td>1.106</td>
<td>100.0 (64)</td>
<td>100.0 (80)</td>
</tr>
<tr>
<td>No support from institution</td>
<td>Adoption</td>
<td>344</td>
<td>1.202</td>
<td>36.1 (26)</td>
<td>31.0 (22)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>359</td>
<td>1.098</td>
<td>63.9 (46)</td>
<td>69.0 (49)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>355</td>
<td>1.131</td>
<td>100.0 (72)</td>
<td>100.0 (71)</td>
</tr>
<tr>
<td>No suitable hardware available</td>
<td>Adoption</td>
<td>333</td>
<td>1.260</td>
<td>34.7 (33)</td>
<td>25.0 (19)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>340</td>
<td>1.137</td>
<td>65.3 (62)</td>
<td>75.0 (57)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>338</td>
<td>1.175</td>
<td>100.0 (95)</td>
<td>100.0 (76)</td>
</tr>
<tr>
<td>No reason why should do it</td>
<td>Adoption</td>
<td>291</td>
<td>1.257</td>
<td>29.6 (40)</td>
<td>33.0 (37)</td>
</tr>
<tr>
<td></td>
<td>Non-adopt</td>
<td>293</td>
<td>1.125</td>
<td>70.4 (95)</td>
<td>67.0 (75)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>292</td>
<td>1.165</td>
<td>100.0 (135)</td>
<td>100.0 (112)</td>
</tr>
</tbody>
</table>

Note: $n_{adop}=108$, $n_{non-adop}=248$, std.dev.: Standard deviation; df: degree of freedom, p: observed significance; r: Contingency Coefficient; NS Test is not significant at 0.05 level; *: Test is significant at 0.05 level
The future of online journals

More than half of the respondents (58.2%) agree that online journals would supersede print journals in at least five years time. The percentage of respondents who have not decided on how online journals would develop is quite high (25.8%) compared to those who disagree (16%) (Figure 5.11)

Figure 5.11: Pie chart of future perception of online journals in 5 year time (N=357)

Table 5.39: Cross tabulation between future of online journal and adoption of online publishing (N=357)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Adoption</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Degree of agreement</th>
<th>$\chi^2$ (df, p)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Disagree</td>
<td>Neutral</td>
</tr>
<tr>
<td>Online journal will supersede</td>
<td>Adoption</td>
<td>3.69</td>
<td>1.047</td>
<td>29.8 (17)</td>
<td>26.1 (24)</td>
</tr>
<tr>
<td>print journal in 5 years time</td>
<td>Non-adopt</td>
<td>3.58</td>
<td>1.033</td>
<td>70.2 (40)</td>
<td>73.9 (68)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.61</td>
<td>1.037</td>
<td>100.0 (57)</td>
<td>100.0 (92)</td>
</tr>
</tbody>
</table>

Note: $n_{adoption} = 109$; $n_{non-adopt} = 251$; std dev: standard deviation; df: degree of freedom, $p$: observed significance; NS: Test is not significant at 0.05 level
Whether the respondents agree, disagree or have no opinion on the fact that online journals will supersede print journals in five years time, the non-adoption attitude is higher than the adoption attitude. This is shown in Table 5.39 where $\chi^2 = 1.140$ with $p = 0.566$ is bigger than $\alpha = 0.05$. As such, it could be concluded that the perception that online journals would supersede print journal in five years time has no significant relationship with the adoption of the respondents of publishing in online journals.

Conclusion

This chapter documents the responses to psychographics questions in relation to attitude towards online journal publishing. It appears that generally, the typical researcher in Malaysian research institutes and public higher learning organizations could be determined. Demographically, the researcher comes from the age range of 31-35 years old, male Malay with a Masters degree, from Western education institutions. The researcher is a lecturer by profession with 2-5 years of teaching experience. This duration of work experience corresponds to the age range, indicating that they are relatively young researchers. The researcher's research background is in Physical Sciences with the majority of them having access to the Internet at work and home.

The data also points to the correlation between the various publishing-related factors to either adopt or non-adopt attitudes. It is assumed that the researchers would use scholarly journals in their research, which indicate positive attitude towards adopting online publishing. However, Malaysian researchers who adopt online journal publishing are more inclined to use electronic resources such as archival materials, conference proceedings and government resources rather than scholarly journals. This is an interesting find, as it contrasted with our earlier assumption. The question at this point is why do the researchers look for information from these sources and not online scholarly journals.
The next chapter will look at the analysis of interviews conducted with the management of the institutions' publishing units to further investigate the situation of online journal publishing activities locally.
Chapter 6

Analysis of interviews

Introduction

The interviews were conducted at five public university presses, a faculty of a public university, and four research institutes in Malaysia. Thirteen interviews were conducted. Ten interviewees acted as representatives of their presses, and the other three spoke about their own experiences dealing in journal publishing. The three individual interviewees were selected because of their involvement in journal publishing and of their interest in online journal publishing.

As mentioned earlier in Chapter 4, interviewees were selected from public universities and research organizations that are located in Peninsular Malaysia. In all thirteen respondents were interviewed. The respondents were officers (management) who were working with the organizations’ presses, three lecturers (academic researchers) and one dean of a faculty (management), who are involved in the publishing of online journals. The officers were either the chief editors of the presses or the senior editors. Some heads of the presses could not be interviewed because they were not involved directly in publishing processes, while others were not available, so they passed it on to their senior staff. Excluding university colleges, there are currently eleven public universities in Malaysia and interviews were conducted with officers from six public universities. The research organizations were
selected based on their status as premier research organizations in the country, both in terms of establishment as well as area for research.

The interviews highlighted the facilities that are available in the organizations, and the perception on the attitude of the management and researchers towards online journal publishing as a whole.

Publishing activity by the scholarly press

The type of publications

The majority of the organizations interviewed were publishing at least one printed journal. Other publications include books and monographs, annual reports, manuals, conference proceedings and brochures in the form of print versions. Some presses digitised the back issues of their print journals while others put the abstracts on their websites.

Apart from journals published by the university presses, there are publications such as conference proceedings, news bulletin and journals published by various entities including faculties, institutes, centres, and units within the universities.

‘Faculties don’t publish journals, but they may have proceedings or something like that.’ (UPM)

‘We have branches all over Malaysia, so each centre has their own publications and they keep their own databases. I heard that recently they are collecting research papers to be published.’ (SIRIM)

The editorial and preparation work before press were different among organizations. All four research institutes have their own journals and carry out the acquisition process right through to the printing of the journals. The university presses, on the other hand have different arrangements. Two of the university presses (UPM and UTM) interviewed handled the acquisition of articles, reviewing, editing and printing
the journals. The other three university presses (USM, UKM and UiTM) acted as the coordinator for the journals published. In this arrangement the schools or the faculties would do the acquisition of articles, and evaluate them. Then the articles will be forwarded to the university presses for editing and printing processes. In this arrangement the publishers are the university presses.

**Publishing facilities**

All the organizations have at least the basic facilities for typesetting, and a printing machine or duplicating machine. Some organizations have larger-scale typesetting and printing machines. All the presses, even those with large scale facilities, will outsource some of their publishing jobs to be done by the commercial printers as they have a small number of employees who are responsible for the publishing processes such as editing, proofing, typesetting, designing, printing and binding. Although some of the presses have very good typesetting facilities, these are underutilized due to lack of personnel, and the same job has to be done outside. One interviewee cited that although the institution is well-equipped with a complete publishing facility; lack of man power drive them to outsource their publishing activities;

‘Our typist still typist, they cannot convert into typesetter. The problem is staff and they *(the management)* decided to out source...we have all the machines, a high end typesetting machines, a very good one, but we don’t have people to operate it’. *(FRIM)*

**The standard of local journals**

All the journals undergo quality control processes before printing, such as reviewing, editing and proofing processes. The persons involved in the processes are, however, varied from organization to organization. For example, the reviewing process for some journals published by faculties was done either by peers within or outside the institutions or by the respective editorial boards. The same thing happened in the editing processes, where professional editors edited some journals while others were
edited by the respective editorial board. Some of the interviewees revealed the various editing processes at their respective universities;

‘The faculty will handle it. We only help in editing and printing.’ (UiTM)

‘All the articles for the journals will be send to the respective journal’s editorial boards. After the articles being reviewed by the respective editorial boards, they will send to us in the University Press. Then we will do the technical editing not the language editing.’ (UKM)

‘We acted as an advisor. Usually these journals are school-based and there will be an editorial board headed by the chief-editor and advisory board. The editorial board will select the articles for the journals.’ (USM)

‘All the journals are published by the Press but they are school-based.’ (USM)

This contributed to the different level of trustworthiness of journals published by the scholarly presses. Journals published by faculties or schools usually do not have international status and more inferior because are not rigorously reviewed.

‘... the faculty will appoint the editor in-chief, the editorial board, the editorial panel and they will call for papers and this is open to all universities. Usually they get from conferences or bulletins. Now this is, a national reviewed journal but is not internationally reviewed. When internationally reviewed you must have international editors, or international advisors, right?’ (UiTM)

‘I think the faculty journals don’t have high value compare to us, but I don’t have much information. Some of them barely survive.’ (UTM)

On the other hand journals published by the scholarly presses tend to be more credible and reliable. Two presses (FRIM, and UM), for that matter had their journals indexed by the indexing agents and one press (MPOB) is on the way to get it.

Although the majority of the presses do not pay for the peer-reviewing process one research institute goes a step further by paying the reviewers. This is to ensure that they can get the feedback within the time.
‘I am sure you knew from your experience or from the other Press. We pay RM150 for each article. Usually I give two weeks. I realize when I give them incentives like this I can get on time and the report is satisfying, quite detail. To locals I give RM150, outsiders USD100.’ (MPOB)

The majority of the journals put 12 to 15 articles in an issue. Sometimes they do get a lot of articles but they could not put in more, because the publishing cost will increase as the number of pages increases, and they could not increase the journal charges accordingly:

‘About 12-15. I limit it. The previous editor put many papers in one issue. So it was thicker. I don’t want to do that because it means our cost will increase but the price is still the same, low. So I thought 15 is sufficient.’ (FRIM)

Based on the past experiences and anticipating difficulties in getting articles, the majority of journals do not publish very frequently. Only one journal in one university press has four issues a year. The majority of the journals publish two issues a year and a number of journals were published once a year.

The prints runs are small, about 300 copies, as are the number of subscribers. The majority of the journals have a small number of subscribers:

‘Our journal like the one publish by faculties usually they give it free’. (UiTM)

‘No subscribers but very few that you can count with your finger. We gave 50 copies to libraries under exchange programme and another 50 to Press and authors. The rest we gave as gifts. Nobody bought’. (UKM)

‘The print version we have 500 now we are reducing it to just about 300 to distributing it. So far now there are 70 national and international subscribers’. (UM)

‘We print 350 copies’. (UKM)

Right now we have 200 subscribers that I think we have reach the saturation point’. (MPOB)
'The subscribers is around 100, we give free to our officers, got some left.' (FRIM)

One organization publishes the journal for free to be given to libraries and other research agencies in Malaysia. Although the journals are supposed to be sold, many presses are unable to sell their journals. Thus to reduce the burden of keeping them the presses usually would rather give away the journals for free.

Authors' writing activity

Writing articles for journals or presenting at conferences is part of the research activities of Malaysian researchers. All the academics and researchers in local organizations were also expected to produce their research results to be published in the journals. However, the majority of the organizations reported that they have problems in acquiring articles from their staff for their print journals due to several reasons:

'I think the response from MARDI staff are not very good because it is very difficult for us to get articles for two issues a year. Only lately there is a policy on promotion exercise and people must publish to be considered in the promotion. So this year we get many articles because of this policy.' (MARDI)

'We in MPOB get the materials normally from our researchers. What we do here is the primary data. What they do in the laboratory they will write after the result being validated. So sometimes it takes long time to get the results. They have to do it over and over to get the results. That's why it is slow, we cannot get articles in time. Secondly is the attitude I suppose. Their attitude for not submitting the research results to us. Thirdly, is the competition from other journals, they want to publish in the international journals outside.' (MPOB)

'Maybe they are have no confidence in our journal. If they publish in the overseas journals they can get good reputation.' (FRIM)

'In UKM we have 11 journals. The university had upgraded all the journals become university's journals. So we, the University Press appoint people in the relevant field to head the journal at the faculties'
level. These journals’ head inform us that it is so difficult to get articles.’ (UKM)

Majority of the presses expressed the view that many researchers are not willing to write. Some perceived the unwillingness to be due to the researchers having problems with writing skills or struggling with language or both. To tackle the problems, the majority of the presses have organized writing courses for their researchers. However, the results are not convincing. One press had to pay people who can help researchers to write. Several interviewees concluded that writing and publishing is not a Malaysian tradition or Malaysian culture. An interviewee remarks that local people simply have no passion in writing.

‘In that case, every year we have technical writing and popular writing course, People come to the course but still no paper come. Let say 30 people attended the course, but no paper is coming. I really don’t know. They have a lot of excuses. If they say they don’t write in our journal, maybe they write in outside journal but they can always not write anywhere’. (MARDI)

‘I don’t know in other press, but in MARDI I think people don’t like to write. Year in year out you see the same person write. I think majority Malaysian is like that. I went to MARDI meetings and the problems is the same. Why people don’t want to write? To say that they don’t have time, their work is doing research only and no other works. I also wonder, after they have finished their research they will get the results whatever it is, but they don’t write the results. Ok, some of them presenting in the conferences, but that’s only part of the research’. (MARDI)

‘To share knowledge you will proliferate in terms of you will want to write more. That’s why nowadays when he or she get professorship he will stop writing. How many professors are keep on writing after receiving the professorship? None’. (Interviewee C)

‘The momentum of writing comes from the juniors, who are associate professors, my batch. The seniors I find it difficult. They are untouchable that’s my personal opinion’. (UiTM)

‘Maybe their writing cultures are not so great. People here don’t like writing articles so much’. (FRIM)
'If we think because of lacking in English that we don’t write, why not write in Malay? We don’t have either. Our Malay journals are going to die and actually we don’t have tradition. That’s all I can see. We don’t go for high tradition like writing, reading and publishing. We only care for trivial things like how many homes have computer, changing the school system to another not-well-planned system. All are wasted. I cannot say much about this because it is political, and I am sure you know’. (Interviewee B)

'Many young researcher have problem cannot express in English. Sometimes we can help at editing level, which is ok. But there are cases where they cannot express at all’. (MFOB)

From the interviews, it was found that people who are used to writing will continue to write.

'Majority of articles come from the people that are used to write. I seldom get from the new one. Actually we don’t know the exact reason why people don’t write. When we ask, they said coming soon but it never come. I am here very long, and I know who writes who doesn’t ’. (MARDI)

As very few papers were coming in to be edited, this resulted in the press having to take all the papers in order to stay in business. In this case they have to edit more thoroughly. One interviewee explains;

‘To some extent yes because not enough papers. No matter how bad the papers if it has some information, we will salvage and publish, because we don’t have enough paper’. (MARDI)

Even though the majority of the presses perceived that they face difficulties in getting articles from local authors, a small number of publishers, especially those already getting their journals indexed, commented that they do get articles from foreign writers in addition to local articles:

‘I received very few from locals but many from outside the country. Many papers from India, USA and Australia’. (FRIM)

‘A lot of articles are coming from India, Pakistan, Africa, ok at least we are first in Asian. E-journal especially in my field in Asia Pacific is very few’. (UM)

‘All reviewed. There are our flagships and we are trying to get cited. That’s why the June issue we try to publish in April. That’s our first
step. I told the boys to publish the December issue in October so that we can get cited. When we achieved this MPOB can stand at par with other people. Yes, but now I am quite comfortable with the collection of manuscripts, so that we can publish early, but I must always beware of the future issues'. (MPOB)

A different situation is observed in research organizations. Interviewees mentioned that articles are difficult to come by because of no results from the research activity. This happens particularly in science subjects where research may take years to bear results:

'The result from biology research is slow because we use natural process but in chemical for example, we can get the result faster. We can get many papers from chemical division'. (MPOB)

As such, research articles are harder to come by and consequently the survival of the journals is affected, as journals that could not be relied to be published on time will eventually not get indexed.

**Indexing local journals**

In the print journals especially, there will be a certain number of articles that make an issue. If the minimum number cannot be reached, the publisher has to wait for more. Eventually the schedule of publishing will be disrupted. The delay may cause low recognition among scholars. The delay also means that the international indexing agents will not index the local journals thus making the journals less visible. Sometimes delay is due to the response from reviewers:

'The problem is not on time. Towards the end of the year plenty of articles will come in but all issues are delayed. Never 2003 issue will come out in the 2003 always the next year. So 2002 issue will come out in the 2003 and so on, they always delay. Sometimes publish sometimes not. Publish not on time. The Press is losing.' (UKM)

'That is up to the reviewer, the problem is the reviewing process take a long time. Reviewer takes along time to read and sent the comments to us. So we have always sent reminders.' (UPM)
‘You know what academic journals are like I suppose, so it has ups and downs I suppose. So far we are publishing. Some are not according to the schedule.’ (USM)

Thus some writers resort to sending their articles to established journals, which are usually international journals. This situation has created a vicious circle in local journal publishing activities, where the delay in publishing resulted in local journals not getting indexed, leading to low confidence among local authors, who will choose international journals over local ones. As such, the local publishing activities remain stagnant.

Previously one University Press had its journals indexed by an indexing agent. Nevertheless due to delays in publication for several years the journals are now not indexed:

‘Last time yes, because they are always published in time. But now we are rejected because we have been delayed for 2 or 3 years.’ (UKM)

Difficulties in getting articles, and delays in the reviewing process are among the reasons that cause delay in publication as some of the interviewees revealed, and subsequently contribute to the sluggishness in journal publishing in the public organization in Malaysia.

Local research articles publication channel

Although many organizations journals are facing difficulties acquiring articles, their perception of where the researchers send their articles to be published varies. Some of them said the researchers were sending their articles to international journals because of the due recognition:

‘Some people want to publish in the more influential journals. Our journal in MPOB is dealing with world oils and fats. There are some
other high class and recognized journal and these people want to put their articles there.’ (MPOB)

‘During the meeting we ask people their papers, but they say they sent them to the International journal and they don’t want to send to UKM’ journals because ours is local and low standard. The university wants the international journals.’ (UKM)

Others claim that researchers in Malaysia also sent their articles to other local journals, as their field of study was more relevant there, or for perceived greater recognition. This trend was acknowledged by the scholarly Press:

‘...we have from local universities, like UM, UKM and so on.’ (UPM)

‘In each issue two third of the articles came from outside organization especially UPM.’ (UKM)

The issue of sending articles to a specific journal also surfaced during the interview. A university press has faced a difficulty in getting articles for their journals, which is published twice a year. They subsequently changed the strategy, dividing the one journal into six journal titles, and publish them twice a year. The result is amazing, and they get better responses and managed to publish them all according to the schedule.

‘Actually last time it was so difficult to get articles. At first I am really worried because with one journal I feel I ‘m going to die to get the articles, and now we change the policy to have 6 series. When we decided to have 6 instead of one we have to go all out to ensure the journals are published. We have June and December issues, usually we manage to publish early July and early January. It has been 4 years.’ (UTM)

Another interviewee from one research institute said that the researchers might send their articles to outside journals that discuss their subject more specifically:

‘Depends on the type of articles. If they write about medicinal plant, maybe they send to medicinal plant journal, it is better isn’t it? More specific.’ (FRIM)

Recognition from the international community is very important for the majority of the Malaysian researchers and their organizations. This recognition can be achieved
by publishing in the international journals. Many organizations in Malaysia give high points in promotion to articles published in international journals:

‘One of the reasons is their attitude not look very highly at local journals. They regard very highly on established journals overseas. And the university regulation is also contribute by not giving high credits to local journals, to the local universities, and this will kill the tradition of writing and publishing in local journals.’ (Interviewee B)

‘Actually they presented many papers in the international seminars and also in the international journals. They prefer to write in the international journals.’ (MPOB)

Another forum for disseminating research results is in the conferences. The researchers prefer to present in the conferences because the preparation is less rigorous and perceived as an incentive.

‘To academics their duty is to teach and if they write is for promotion purposes so they prefer to present in the conferences, less effort.’ (UKM)

I don’t think they publish outside a lot, but they presented in the seminars and conferences.’ ‘...here, if we want our people to write, we have to give them something. They want incentive in term of money, promotion, or presenting papers and trip overseas; everything that we want them to do must have incentive. I think it’s our culture.’ (MARDI)

‘In UiTM we do have research grants between RM20, 000 to RM50, 000 for academics. Well, short term grant we emphasized on presenting the findings of the research, the attitude is ok for the researcher. I think this is good especially for the researcher of the short-term grants. They would present in the international conferences and also we have internal conferences for them.’ (UiTM)

‘Yes, we do a lot of research. Usually they are presenting in the conference and publish as proceedings. You can get the proceedings in the FRIM’s library.’ (FRIM)

From the interviews, it is apparent that researchers do publish although they prefer to publish in international journals either local or abroad. Journals that had been cited by an indexing agent received more papers than the journals that were not indexed. Researchers also sent to the journals that are specific to their field. However, when
comparing between publishing in the journals and presenting in the conferences, the later is more preferred by many researchers.

Lack of local research articles in international journals

International journals that receive high recognition and impact factor are the target of the majority of local researchers and academics. However, to get accepted by these journals is not easy. The reasons given by the interviewees are the style used in journal writing and the language barrier:

‘You have to look because each journal have their own editorial policies. They want you to refer to APA style, or MLA style or IEEE style so you have to follow. In the first round when the Malaysian authors send the articles to journals and expected the editor to change, no they won’t change for you and that’s why the rejection rate is very high.’ (UM)

‘… I'm English language teacher so I foresee my language is better than other people who are native language is Malay. Even when I submitted articles for journals and the reviewing process they still can identified the language as barrier. If I'm as an English language teacher the reviewing process for me is tough imagined those who don't publish in English. Let say they try, it is very difficult. Language is important if you don't have the right language you cannot have the right ideas. So when it’s not there you tend to use language or term that is not appropriate and your ideas broken up, the expression not smooth. (Interviewee C)

Another interviewee noted that the rejection is due to the essence rather than language or style:

‘Seldom on language seldom on style I think the essence. Sometimes their comment is on the discussion that is not appropriate with the journal, the scope of the study, and others is the methodology, I don't think so much on presentation. Some of the articles are not so rigorous I think the depth of the discussions it is empirical but not detail.’ (Interviewee A)
One thing that interviewees realized is that the number of papers being rejected by the overseas reviewers is high compared to local reviewers. This may explain why local writers are facing difficulties publishing in overseas journals:

‘From my experience overseas’ reviewers are more stringent compared to locals. I think the non-acceptance rate from overseas reviewers for articles I have sent is between 70-80% compared to local about 20%. I don’t know whether our local reviewer is more lenient or because the oversea reviewers are more prolific because they have been exposed to the job for many years.’ (Interviewee A)

Although publishing in the international journals is encouraged by the organization and is the desires of researchers, to get published is a different matter. Many articles get rejected due to reasons such as language, writing style and the essence of the articles, as mentioned by the interviewees.

Perceptions of online journal publishing

In general online journal publishing is seen as positive, especially in reaching wider audiences at relatively low cost as the technology is available in all the public organizations. However, the presses are quite reluctant to publish online-only journal. They prefer to publish parallel journal to satisfy the authors as well as the organization.

‘I'm thinking how to make sure people can access online. Luckily when I started I publish parallel, so the journal is continued. If not I have to stop publishing whenever I have server problem.’ (Interviewee A)

‘Completely go online, no. What we have is abstracts in online, content and all that the usual things.’ (USM)

‘We don’t have plan for this kind of publication. What we have in mind is digitize the print version so that people can access online. Maybe we will charge to access the articles. (UTM)
Perceived advantages of publishing in online journals

All the organizations’ presses said that the online journal is good on several accounts; wider audiences, a faster and cheaper way of disseminating information, as well as promoting the organization locally and internationally:

'It’s very good, online journal is good in term of accessibility and it’s faster. I still think that they are faster and easy to access. Online journal is easy to access and distributed compared to the print journal. Good, in term of distribution.' (UPM)

'It is good. It is faster, lower in cost and people can access the result in time. Publishing in the printed journal will take time.' (MARDI)

'It is faster, you don’t have to wait for 15 papers. More people can access. You can publish one by one and then when you have all 15 articles you can print. That’s what I see.' (FRIM)

'... to me the main issue for EJUM or any journal for that matter is I want it to be disseminated as far as possible to the user, and I want the user to retrieve just as fast so that if there are articles that they can use in their research they can use it. The usage of article in the journal will create more impact for the article that I carry instead stays on the shelves and nobody used it.' (UM)

'For me for UPENA I think we are moving towards that direction, we also want to have online journal. Because that's what people would, and can see, the image of the university. When we do online journals you would some sort of promote our centre as well.' (UiTM)

All the interviewees agree that publishing in online journals is better for disseminating and sharing knowledge. The audience of online journals is wider and this can promote the authors and the organization at national and international level.

Perceived disadvantages of publishing in online journals

As revealed from the interview many organizations have not ventured into online journal publishing although they claim that online journals have advantages.
However, the interview also revealed that people are worried to publish in online journal because it is not permanent and may survive only for a short time:

‘... it just that journal is not a journal if it’s publish one or two issues. So the continuity can be questioned but I also see some journals that have been in existence since 1989 and still in the web. But based from my experience some journals had stopped halfway. When things like his happened its quite difficult to really find out how are going to feel secure. I don't feel secure publishing in online journal like that. You don't know how long it will last. If the online journal belongs to big academic organization then it's different. That kind of journal is fine. Journal initiates by individual, or faculties are not stable. They have to be established first before we can publish in there.’ (Interviewee C)

‘Last time I was presenting a paper on the future of books in the electronic era. Will it be like the typewriter disappearing in front of our eyes when PCs was introduced? They concluded as no, books are not going to be like the typewriter, but books are to be like the pen. No matter what technology will come it’s still preferred because it’s cheaper, more portable and closer to heart. Electronic will not be replaced but to compliment the books. That is the scenario in here so far. Librarian will still looks for books at least for record and archiving purposes because in the electronic form it is not permanent. Last time we used a different programming for our floppy discs and now we cannot read those discs. One more thing is the hackers and they are very clever and we cannot see where our data will be kept, so the hackers can just do something and the next minute we have no data.’ (MPOB)

One interviewee highlighted the reason why people are not very keen to publish online is because they are scared and apprehensive in the current situation of online publishing. Issues of copyright and plagiarism are among the main topics being discussed in the scholarly publishing circles:

‘Sometimes people have phobia and worried about plagiarism and loose the copyright.’ (UM)

‘This is the mindset. To me I will never copy the whole thesis maybe I read it, what are so afraid of people, we don’t trust people. That’s the thing that prevent us from going further because I remember Virginia Tech start their digital library and then they ask for volunteers to submit their thesis. If you ask Malaysian they will ask a lot of questions on copyright and everything. You see that the e-form is the same as in the print. If people want to copy they still can, but if they
copy from the electronic form to check for plagiarism is easier. The thing is you want the information to be used by people otherwise what's the point publishing. That's people problem not technical.' (UM)

Online journals are perceived inferior in quality compared to print journals. This is due to the quick acceptance because of the hasty reviewing process as mentioned by one of the interviewees:

'I only question the process of reviewing, it is not as thorough as in conventional. Because maybe online journal we don't see the journal as in conventional journal where you can see the journal itself—the hard copy. But online journal they are in the Internet and you cannot see. I think most people will question the authenticity of the online journal. There's one journal cum magazine that has been around since 1999 but it has stopped publishing in 2001 or 2002, it's purely online. So you can question why it ended just like that.' (Interviewee C)

Due to the above factors several organizations have no clear policy on recognizing online publishing. As mentioned earlier, recognition is important for authors. The researchers will accept online journals if the organization where they work recognize it. In the interviews the interviewees were asked whether the support from university would encourage people to publish in online journals. The answer was:

'I think there is a connection. Because when people see that the university recognized people doesn't see it's weaknesses. Why they should not send to online journal I've seen many people in UKM get promoted when they put their articles online. So the recognition will quicken the acceptance.' (Interviewee A)

'I think our researcher already receptive but they need to know clearly whether it will be acknowledge by the university or not. Like myself I will be going to USM and a lot of my material I dare not publish because I don't know what is the policy right there, if I do know the policy it'll be easier.' (Interviewee C)

'The problem in Malaysia is the universities don't have written policies whether they accepted or not the online publishing. The policy is not clear.' (Interviewee B)
Although publishing in an online journal is easier, faster, and may have wider audiences, it is perceived to have a set of its own disadvantages. Thus for the time being Malaysian researchers still prefer the print form.

**Online journal projects**

All organization's presses have not gone into online-only journal publishing. Many presses use the online platform to put the abstracts and as a promotion tool for their print publications. The full articles will be sent in the print form or CD-ROM on request. The Faculty of Computer and Information Science, University of Malaya and the Special Interest Group, National University of Malaysia have their journals parallel. Currently three organizations, MPOB, FRIM, and MARDI put their journals' back issues online, which can be accessed for free. One university Press had tried to put the full articles online for free but had it pulled off because very few access the articles.

‘During the trial it is free. But now we only put the abstracts because it is not encouraging. Only one issue we put online in PDF for trial.’
(UKM)

At the moment two presses practise parallel publishing where the original online journal version will be printed. There are two main reasons why they publish electronically, namely because the technology that enables them to do so is available; the second reason is to grab all the opportunities for online journal publishing such as wider dissemination thus better visibility, faster, and cheaper.

For many organizations, starting an online project needs a lot of convincing of higher management. It is easier if the higher management understand and are aware of the technology themselves and direct the press to have an online project. Otherwise the convincing process will involve preparing the working papers to obtain approval. The presses also need to work together with other departments such as the information technology department, libraries, human resources department and so on. Some
organizations have taken the project in stages while others have not started yet. From
the interviews there are four situations regarding the online projects in Malaysia at the
moment:

1. Publishing Unit's online project
2. Faculty's online project
3. The Special Interest Group online project
4. Bystanders

_Publishing Unit's online project_

While all the presses except one have their web sites, there are three research
institutes (MARDI, FRIM and MPOB) that have abstracts of current articles online
and the full text of back issues available free online. In the near future these three
organizations will have all current issues online after the scanning process of the back
issues has been done. Since they do not have facilities in their department, the other
departments such as libraries and information technology department did the
digitisation projects.

'However, we already put the abstracts of the current issues online not
the whole papers. We are now scanning and put the back issues
online.' (MARDI)

'Maybe in two or three years we will have online. We will have both
print and online, that you refer as parallel.' (MARDI)

'Yes, it is done by the library. The library will digitize and put it in the
server.' (FRIM)

'Free. There are back issues, back by one issue. You cannot get the
current issue online. We will put it online when the latest issue
published.' (MPOB)

For the time being the online access is free because they are back issues but in the
future they may charge:
‘That’s right but the idea is like what the management said, we make them addicted. We gave them free on the web then after sometimes we will stop it.’ ‘We don’t know yet, because we just had started for 2 years.’ (MPOB)

‘...the plan is we will sell the journal. It is not free. However, for our own staff they may access free.’ (MARDI)

Organizations that have not put their journals online use the Internet as a promotion tool where they put the titles with the pictures of the journals and other publications’ covers.

‘If you go to our website you can see our publications. Everything is in our website. But it has only the abstracts not the full text. If people need it we will make a copy in CD then we will send it and it is free.’ (SIRIM)

Apart from the existence of organizational-based online projects, individual faculties have also come up with their own online projects that are separate from the university press.

**Faculty’s online project**

The Faculty of Computer and Information Science in University Malaya is fortunate enough to start their own online journal. The faculty has all the facilities and skills at its disposal. Thus it was easier for them to launch the online journal project without incurring an obvious extra budget. In addition the dean of the faculty is very interested in having the online journal herself. She understands the importance of online journals and encourages her staff to contribute to the project.

The journals are parallel, though. The online version is especially for promotion to a wider audience, as it can be accessed for free. The print version is printed after the online version and the print version is for the subscribers only:

‘...the print version usually comes out slower then e-version, e-version first usually. I tell you it is so easy if everything has been edited only
we start uploading so it means the articles are clean from grammatical
errors.' (UM)

Another local university (UKM) is also involved in online journal publishing,
although this time the project only involves a fraction of the university’s research
staff that has similar research interest.

**The Special Interest Group (SIG) project**

The technology for online publishing activity is available within all the organizations
locally. This has encouraged individuals who are aware of the technology to start
online journal themselves. These people get help from friends who have the same
enthusiasm and expertise.

‘This journal is published by SIG and some of my project I got my own
server, so basically the server is here.’ (UKM)

‘I put all the deans in the editorial board because they already have the
name, but the actual work is done by us. In fact Datuk (UKM VC) said that
I should put my name as editor because he already get his professorship.
Working with this bunch of old men sometimes very difficult because they
are not as open like us. When we run the journal I, Ramli and Zalizan
thought how to expand the journal. We have experience with VirTEC
where we have people from UTM, UKM and UPM and also from England
we had international editorial people. So we tell Datuk and we just
communicate through e-mail to these people. Only the final session we will
sit together those from Klang Valley and we go through the articles. Based
on the past experience I get younger and aggressive people for iJeLLT.
Now I am working on the second issue of iJeLLT. We communicate a lot
through e-mail. I am the chief editor for iJeLLT and Nurlizan is the
executive editor. This is a refereed journal.’ (UKM)

Before iJeLLT (Internet Journal of e-Language Learning and Teaching) one
interviewee had published VirTEC (Virtual Teaching Education Centre). The VirTEC
journal was a product of his research sponsored by UNESCO. Initially VirTEC was
an online only journal but they had to print the journal on demand for recognition
purposes:
At that time it was online only. But when come UKM promotion exercise this online journal of mine was not recognised. So the contributors were puzzle why this is happen because during the launching we had editorial board from few countries, UK, USA because it was UNESCO project. So I said in that case I will print for 100 copies and the authors have to buy for promotion purposes. So 1st, 2nd issues I have the print version, a limited copies to help the contributors get the hard copy for promotion purposes. Not every one knows that we have the print version. Usually Ph.D students from USM, UPM, UKM will buy. We have no problem to print. We publish twice a year and when come the third issue we face server problem. So I have to publish parallel because the server has given me so much problems. Now I have to think other option.’ (UKM)

Publishing an online journal that is attached to the organization, which in this case is a university, could lead to better recognition but is not without problems. Since the project is a SIG (special interest group) project they use the facilities obtained from their research grants and facilities that are available in the faculty. In order to continue the project they have to charge. This situation has created prejudice among the faculty staff:

‘People are making noise and talk about who own the server and computers and all that. There are 4 of us who work for the journal and there are people who raise the issue of ownership of the computers.’ (Interviewee A)

‘Actually it belongs to UKM but I use it for this iJeLLT. People start asking when they see in the editorial board only my name from education faculty UKM. They ask me why did I use the ‘UKM server’ for publishing this journal. So I have a meeting with other members in the SIG why not we just go for commercial server. But I was thinking if I don’t attach with the institution the value would be lost. When I use this server I use UKM domain, and when people make noise I feel hurt and confuse. For the time being I just use it until people get very noisy then I will change the domain.’ (Interviewee A)

‘We are thinking how to maintain our budget because if we are going to charge through Karya Net, people will question who own the journal and if the journal had use UKM money, the money we get from selling should go back to UKM. It is a bit complicated to make people understand. So at the moment we want to make the journal as SIG (special interest group) journal.’ (Interviewee A)

At the moment this group has decided that they would make it a SIG journal because the university has no real enthusiasm towards online projects. The university seems
not to encourage nor discourage the development. However, the university is aware of such activity.

‘So far it has officially launched by the VC that’s all.’ (Interviewee A)

The university however, will not disturb or stop the online project as long as the project is not ‘illegal’ or involves an extra budget. They appear to have a silent policy about it. According to the interviewee, to get full support in term of extra equipment, staff, or space is difficult at the moment:

‘I’m not interested because I see the bureaucracy is wasting my time, and I think I have the energy to continue and I have a good team so far. We met and bring expert in computers, language teaching and we enjoy. One person from UTM said he come to join our group because UTM see that we have potential and his faculty pay for the travel. I cannot say because it is still new. I think it’ll take some years.’ (Interviewee A)

As the subject matter for iJeLLT is TESL (Teaching English as Second Language) the language used is English but VirTEC is using both languages English and Malay.

‘TESL cannot be written in Malay but once again it depends on the writer if the writer want to write in English or Malay be it because this VirTEC journal is discussing the education problem and on top of that it is a UNESCO project. They want something inter-regional so I said I want to develop Virtual Teacher Education Centre, that has Malay and English articles because Malay speaking population is big including Brunei, Singapore, and Thailand and it was accepted by UNESCO and I get RM95, 000. So I was thinking why should we limit to English only. And just to ensure the quality we have one of our international editors is very well versed in Malay. Professor Howard Coleman from Leeds University, had taught in Indonesia for 8 years, will sometimes review our Malay articles.’ (Interviewee A)

‘iJeLLT is in English only but VirTEC we accept in Malay because it is Malaysian. But it’s on the web, one of the reasons we put in the web is we want people recognized even if it’s in Malay, because Malay speaking population is big.’ (Interviewee A)

Over time, they expected that their online journal may get recognition and be accepted. However, at this point several people have got promoted based on their publications in these online journals.

‘I know 3 or 4 people interviewed for associate professor use the articles publish in this journal. The university doesn’t question. I know Latif Samian,
Siti Rohaya, Khairul Anuwar, Zuriah just get their Associate Professorship.’ (Interviewee A)

‘Right now I think people are starting to accept because the other day I discuss with the deputy dean about the contribution of this journal in the promotion. So it is getting the recognition. A person had his professorship after he published in our online journal. I think people want to publish.’ (Interviewee A)

The iJeLLT attracts many people to publish especially from younger generation with western education. So far the SIG has no problem in getting articles:

‘Not a problem but I see that many who sends are new generation maybe 45 and below. I think most articles I get from people that are exposed to overseas education.’ (Interviewee A)

As for the contributors there is no obvious difference in term of gender or the ethnicity:

‘I think mixed, and in term of race it is not so obvious. It depends on the writer.’ (Interviewee A)

The problem faced by the SIG is that it has no back up in term of budget and expertise from the organization where they work. They have to depend on the goodwill of their members in the group. In the case of VirTEC for instance, they have no more money to spend because the money given is just one-off.

‘They said the online part of VirTEC journal can be published with Karya Net. The past 2 issues people cannot access because server problem. We still maintain the journal and now we get some overseas editors so many people like it. So I have no problem in getting articles. After all this is my field, I create the platform to teach and learn in TESL. We have IRPA project with the Dean of Education Faculty UPM and we developed the search engine. Dr. Sidek developed the search engine.’ (Interviewee A)

The interviewee was also hopeful that the SIG would find ways to continue publishing the journal even with limited funding.

‘I think because of the hard disk. 1st and 2nd issues were ok. Now the 4th and 5th issues always down. When we repair then in a short time it will down again. I have to find ways how to make the online version can be continued.’ (Interviewee A)
Although the SIG online project appears to be more vulnerable to challenges that may lead to its extermination, the interviewee was positive of the sustainability of the online project.

'Only one time for us to develop Virtual Teacher Education Centre, so once the virtual centre set up the money has finished. I just continue. I'm not the dean otherwise I can do something...' (Interviewee A)

Other institutions have different issues in relation to online journal publishing. Although some of them have the facilities to publish online, many have not done so and only obliged if there is a requirement for them to do it by the top management.

**Bystanders**

In the interviews all the presses mentioned that they have the facilities to start online publishing at least within the organization. However, many scholarly presses are waiting for the directive from the organization administration or their superior to start the online journal projects. This is because they need support from the organization as the presses have not enough hardware, skills and the personnel.

'What I mean is if there is really a request the Press can do because the technology, and skill is available within the University. In the Press itself maybe it is not enough, and maybe we need to get a better system. Actually where this Press is concerned we can handle e-journals, but it would be up to the editorial board.' (USM)

'Although last time we plan to have online journal but now no more.'

'We abandon the plan. The whole thing is not settled it's not easy to work with other people. We cannot control. In here we don't have anybody to do the job.' (FRIM)

'If Dr. Chan wants us to do online we will do it but it is not up to us.' (FRIM)

'If the boss direct me and if the resources is there I'm sure we can. Sooner or later I think we have to do it. Right now no pressure to do it. If they ask me to do it right now I cannot do it because no staff. If they really want it, they have to plan we have to plan.' (FRIM)
'Actually if we really want to have it we can work with the Computer Department. But there is a lot of works and things to settle between the two departments. The boss should initiate or direct us. Nobody will listen to me alone.' (UPM)

Some presses have not discussed online journal projects thoroughly although they had some discussion about publishing online journals:

'At the moment we haven't discussed it yet, although many show their interest. We have seminar on this matter and many are exited about it, but so far no development. As far as I know no university presses has online journal. What they have is online version of the printed journal.' (UPM)

'No online! So far no. We are not talk about that yet. Just like what we have now, print.' (SIRIM)

'There have been discussions whether we should go online. But they said our members are local you know. Maybe we should expand that publications committee to include outsider from international. But only the talk it is not been done.' (SIRIM)

'We do have infrastructure, but perhaps they should be more demands from the authors for online journals then we might be able to do.' (USM)

'Because we, as a press we are not in control of certain decision. This particular decision would lies with the respective editorial board of the journals. If they were to request then we will publish online. Right now there is no request from the journal.' (USM)

'Right now the online journal is not our priority. We just talk about it before, but it is not in our target and we don't work for it, that's it. Right now we don't think we can do it.' (FRIM)

There is a real possibility for these presses to publish online journal but it must be directed from the top management or the journal committees. This is maybe due to the situation where they are small in term of facilities, skills and staff.
Factors hindering online journal publishing

Several factors have been identified to contribute to the tardiness of online journal adoption in the scholarly presses in Malaysia. Factors that hindered online journals can be divided into two aspects: technological and the human aspects.

The technological aspect

From the interviews all the presses have no real problem in getting the technology as all the technology needed in online journal publishing could be obtained within the organization. Although some presses said that they have no facilities and skills but they can always request from the organization if they decided to have online journal publishing.

However, the situation is different for the SIG, as the online journal publishing does not come under the responsibility of faculties or organization. This is a volunteer activity. Technological glitches such as server malfunction and lack of budget would definitely hamper the progress of the online project. To overcome the problem it needs a full time participation and on-going budget for the daily expenses.

The human aspect

Several issues had emerged from the interview that can be grouped under the human aspect. There are lack of staff and skills; top-down policy; recognition of online journal; lack of writing and publishing habit; incompetence in English; and lackadaisical attitude towards IT:

‘It’s not the technology problem at all it is people problem you have to tackle the people issue first. I have been telling people in Malaysia that they can park their online journal in our EJUM. Many times but they don’t want to use the service.’ (UM)
All the presses point out that they have no staff or skills to start online journal publishing. However, if the management direct them to publish online journal they are capable of doing it.

'UPM press has no online journal because we haven’t started it because we don’t proposed. For the time being there is no online publishing facilities in UPM Press. But if people are strongly wants it we can work with other departments to publish online journal.' (UPM)

'UPM Press with the cooperation from university management and IT Department. UPM Press must have a strong recommendation and suggestion about having the online journal. This suggestion can be brought to the university management especially the University Press Committee.' (UPM)

'We have plans to publish online journal but we have no staff and skills to do it.' (UPM)

'We can still start off, frankly speaking but it will be better if we have specialist.' (USM)

'If you have the resources you can do it. Right now I don’t have the resources. I am aware that eventually people will go into it but personally I would rather prefer the hard copy anytime. It is easy to read, but we editor is different maybe the officers prefer to have online. I think all the same I still have to edit, then if the boss wants it online when its ready I put it in online. (FRIM)

'In term of skills, we are not fully ready. We still need help from Human Resource side. Right now we have one person responsible to the electronic section and another person in-charge of electronic publishing. We need more staff.' (MARDI)

According to one interviewee, the Malaysian standard is different from developed countries like USA or the UK. To him Malaysian publishers are not short of staff and skills in handling the journal publishing:

'I do not agree if they said they don’t have staff and skills. I am proud if my journal is growing but we cannot expect it grow like in the USA. They have been established in research for many hundred years, and we can’t compete. But I am satisfied if people from other countries quote my articles in IJeLLT or VirTEC because it's a recognition.' (Interviewee A)
Some presses mentioned that if the communities in the universities are interested to have online journal publishing the presses or the faculties have to ask for it:

‘But right now in UPM Press we don’t have plan because we don’t have people who can handle it. So it will not be functioning. So if the researchers want it they must request for it.’ (UPM)

‘We do have infrastructure, but perhaps they should be more demands from the authors for online journals then we might be able to do.’ (USM)

‘At the moment we are in traditional publication. Like I said anytime they can request (online) and we can comply. I mean we are able to do it.’(USM)

‘Perhaps, I can’t speak for them. So far no request from our journals to publish electronically.’ (USM)

Several presses feel that if they have an online journal the authors may use it to publish their articles. It is actually up to the presses to develop the online journal as a medium for researchers to disseminate their research results:

‘But it is maybe because the press has no online journal. Maybe if we have online journal they prefer to publish using online journal.’ (UPM)

‘I think they are agreed (to publish in online journal) because the time to publish is faster compared to the printed journal.’ (MARDI)

From the interviews it is gathered that the resources to start online publishing are not directly available in the presses or publishing units. Within the organization, they may get help from other departments such as library or IT departments. Thus they can start online journal publishing but had not done so because the community had not requested it and the management had not directed them to do it either.

Another factor that hinders online publishing is the recognition issue. In general online journals are perceived as below standard due to several factors such as easy acceptance, faster acceptance and permanency issue as discussed above. This situation had contributed to the reluctance of organizations to recognize online
journal publishing. As such scholarly publishers had not strongly pushed the idea to become online journals publishers.

‘For now the online publishing are not recognized because people are skeptical of its credibility.’ (UKM)

‘I think people will always doubt on the credibility of the Internet because, anybody can put anything at any time. That feature I think makes it very difficult for other people to believe in credibility in online publishing.’ (Interviewee C)

To enable people to publish in online journals people must write and writing needs skills. From the interviews it was highlighted that the tendency is for the same few people to write. Writing is not Malaysian culture or tradition. Some people who were prolific writers at the beginning may stop when they got promotion. Although the number of researchers are increasing the number writing in the journals is not increasing accordingly.

‘We don’t have reading tradition, no writing tradition but suddenly we want to become developed country. Developed country must have population that love to read, write, knowledgeable.’ (Interviewee B)

‘People are not interested in writing.’ (UKM)

‘Can you imagine that we plan to publish two issues a year. Fifteen articles in an issue. So we need 30 articles a year. With 450 research officers we just couldn’t get that. And they do research everyday. I understand that research has time limit. Some takes longer such as planting a rambutan. But other area like food technology we can get the results in a month. It is just so difficult to get articles.’ (MARDI)

‘That is the problem. They do many research but not many people write.’ (UKM)

‘I think attitude problem, what else? People who love knowledge will busy themselves to do research and disseminate them. Maybe one or two persons we can call scholars. When they get the professorship they are busy holding numerous positions, and of course no time to write. If the VC don’t write what do you expect the subordinates.’ (UKM)

‘That is the problem. We always ask the academics why don’t they write. They do research but they don’t write. People want to know
their research. They never write book or article. If they want they can write because they do the research.’ (UKM)

‘We tried to show them and help them how to write scholarly articles but the energy is just wasted. Nobody wants to write seriously. Actually we created a position, *Malim Sarjana* (captain scholar), something like professor or senior lecturer. But people just don’t bother. Young lecturers don’t go to seniors and the old lecturers never work together.’ (UKM)

‘There are people who don’t write at all. But here the management make it compulsory for people to write, every researcher must produce 2 papers at least two papers from each researcher. From these 2 papers some published outside, some inside and some presented in the conferences. We have 150 researchers. If we calculate we can get a lot of papers. But sometimes the results are not out especially in the field like biology. You know that you have to take years to get the result. We plant the tree after 3 year then we will know whether the tree can bear fruit or not.’ (MPOB)

Several interviewees perceived that lack of writing skills contribute to the low numbers of articles sent, and low quality articles. To one interviewee, the lack of article writing is due not to the attitude of “does not want to write”, but rather “how to start writing”. This problem is prevalent especially among young researchers. In this case guidance from the organization is important:

‘It is not writing problem but how to start writing maybe. That’s the problem especially among young researchers. On how to write. So we give them guidance and courses. Sometimes they have so much in their head but they do not know where to start. They don’t know how to draw a conclusion from the research they have done. So we help them and we call how to write it right.’ (MPOB)

‘Maybe they are lacking of writing skills or problems in presenting the results.’ (MARDI)

Admitting the lack of writing skills that may contribute to the slowness of articles writing, one organization had gone round to have writing workshops, while others had conducted writing courses for their staff:
‘...every year we have technical writing and popular writing course...’
(MARDI)

‘We appoint each faculty and each branch campuses one publication coordinator. For every three months there will be a meeting where they will meet me. So there are about thirty-two of them. They will meet me to report how many people will be going through the writing workshop every month. We go from campus to campus to promote the writing workshop.’ (UiTM)

‘I think it is the culture of working place. The seniors don’t write but we give writing courses to the subordinates. We are damned tired giving them such courses because they just won’t write.’ (UKM)

However, one interviewee feels that conducting writing courses for academics and researchers is not very helpful.

‘I don’t think it’ll work, I think the researcher has to learn on their own. We cannot teach them how to write. Let say we give them a writing course to a lecturer who has a PhD or associates professor, they may think or say who are you, giving them such a course. The person who gives the course doesn’t have a PhD or AP. I think this thing still matters, it is very wrong.’ (Interviewee C)

Some interviewees feel that the lack of writing skills among researchers and academics is due to the education system:

‘I think our education system it goes way back to the root of the problem, our education system stressed to much on academic we forget about critical and creative thinking which is very crucial in terms of writing. We focused so much on examination we don’t let our student explore their ability to explore to venture out and seek ideas.’ (Interviewee C)

‘If we are educated we can do like other people but until now you can see even the university students cannot think and behave like one, they cannot survive in the university. The school system right up to the secondary are not helping in creative thinking, they were spoon feed. The students were trained in the school like that for 13 years, what do you expect?’ (Interviewee C)

‘I think so the education system. I give you one example, remember the Chinese boy who scored 13A? He’s from my school, the Sultan Ibrahim. Now he’s just ordinary accountant and in terms of contribution academically, what is his contribution? Anybody can get
13 A’s I believed if you work hard you can, but can anybody go in front of the stage and talk about 10 or 1 minutes non stop giving concrete ideas, can everybody do that, I think cannot. Thing like that has to come with training and something inside.’ (Interviewee C)

‘...I think our education system still concern about getting more A’s. I’m sure you are familiar with UK education and if you put our Malaysian student in any university I think they will get good result, we will always. Here this Ong Bai Ling top student in University of Bath but in actual sense who do you think accomplish more? Ong Bai Ling or the Whites? These White people are not bother how many A’s you get but more importantly how well can you think, how well can you present your ideas that’s the different. Like one Sarawakian who went to Oxford because he is genius, he focused on Math. Malaysian mindset on math is there, they send the children to learn math and don’t mind if their English don’t get A. Like science students, they take math, science, physic, chemistry, and biology. How many subjects if you want to be a doctor? You don’t need modern mathematic all you need is biology and chemistry so why don’t you focused on these 2 subjects? We only started doing this in SPM about 3,4 years ago. If you want to do medic you only need biology and chemistry A. So what general study got to do with medic that you must pass in order to pass in the examination? If you pass statistics with A does it help you in medic. I understand if you must pass the chemistry because it will help you to become a good doctor and biology because medic is biology. Do you need other than these subjects to become a doctor? But our Malaysian system you must pass Bahasa Malaysia, English, math, science, chemistry, physics, biology, religious study and too many other subjects. We want to be jack-of-all-trades all must be good but the specialized one not good. To illustrate better we take the car as an example. Do we have design our own car? We have Proton but the engine is Japanese design, we modify here and there, can you say it is Malaysian car with Malaysian engine? No I don’t think so. Who is the engineer for Penang Bridge? Petronas twin tower, I think the engineer is from Germany or Australia. None is ours. Do we have any educational theory applied? Can’t be bothered because our education is stressed so much on examination. We have UPSR why do you need UPSR for because after standard 6 the government had make a law that all pupils must go to form I regardless whether you failed or passed UPSR you must go to secondary school. Instead of national open examination do an individualized examination because you need something like SPM but you don’t have to take 13 subjects, you can kill yourself.’ (Interviewee C)

‘Until we change our education system nothing will change.’ (Interviewee C)
'Singapore became a developed country because they have top system of schooling. Their school is among the best in the world. Their schools, their education system, their classrooms, their curriculums, and facilities are tip-top then you can be a developed country. In our case, we want to have smart schools but we have a lot of problems with cracks buildings, no computers and many other problems. How are we going to become a developed nation?' (Interviewee B)

The interviewee also identified that the Malaysian education system had contributed to the incompetence of English language in writing articles where Malay language is the medium of teaching and learning in public schools and universities:

'I think that is one of the reasons. I realize that Bahasa Malaysia is used as medium in the universities. The graduates are not competent to write in English. But they can take English course if they want to better themselves.' (MARDI)

Hence to encourage people to write, organizations have come up with several incentives including promotion. One organization particularly made an award to the best manuscripts, where the winner will get some amount of money and a certificate. While publication is compulsory for promotion purposes, a number of organizations made it compulsory for the staff to come up with several articles a year:

'We give a lot of encouragement to our writers. We give best manuscript a reward every year. It is not much but you can walk handsomely with RM 500. But the most important is the certificate.' (MPOB)

'...people must write articles to get promoted. Now I get more articles.' (MARDI)

In term of language used the majority of the journals published contained articles in both English and Malay languages, with some journals moving towards publishing English articles only. This is an effort to get recognition from international readers. It is common to find articles in the Malay language to have English abstracts.
Publishing in online journals mean they are more exposed to their readers all over the world and subject to different opinions and criticism. Competency in the English language is a necessity. Since English is a second language for Malaysian many authors are facing difficulties in expressing their thoughts especially in non-science subjects.

The majority of the scholarly journals published by the universities and research institutes in Malaysia are in English or a mixture of Malay and English. There are, however, for the benefit of people and complying with the nationalism policy, several printed journals, especially those that deal with indigenous matters such as culture and arts, would accept articles in Malay language with English abstracts.

However, to be recognised by fellow researchers internationally, articles must be published in English. To get indexed by international indexing services, journals must be published in English. The indexing agent plays an important role to the visibility of the journals internationally. One organization had shifted the mixed language journal before to English-only now. Any publisher that strives for visibility and recognition at international level would publish in no other language than English:

'...for the past few years, we published bilingually, English and Malay. But starting this year we only publish in English. (MARDI)'

'Because when you publish online, I read somewhere that one of the barrier for not publishing online is the language ability. People tend to be scared. If I put something online what will other people say about that? Because it's like an open book everybody can have a look at it. So I think that's really true especially researcher that are not competent in English. We know that almost 80% of journals are in English in fact online journals are even more. I don't think there is online journal in Bahasa Melayu (Malay language) in the field of education.' (Interviewee C)

'But who is going to read it? You tell me. Ok we have about 7.5 million Internet users with 4 million subscribed through TMnet or Jaring. Out of that Chinese are the most, Malay comes second out of those figure. If we slash again the Malays who really read the journals how many left? Maybe our counterpart like Singaporean and Indonesian, the market is not there.' (Interviewee C)
‘Yes, even if you're researcher in Bahasa Malaysia I think if you have to publish articles on Malay linguistic in English, there's no way you can publish all in Bahasa and establish your self internationally. If you published in Malay and still get professorship I can always question.’ (Interviewee C)

‘Here, 90% of our publications are in English. Annual Report in Malay. I am sure you understand why we publish in English, because our audience is the world. But the new generation have problems because sometimes their English is not so good. So we get help from editors and professional writers.’ (MPOB)

‘Well we had 8 editors in-charge of newspaper but they cannot handle the journal because it is technical. Must get people specialised to handle the journal. I cannot because I'm handling big research project. They give me because I'm good at editing. Checking the English, I can tell you, that the quality of their English is poor. I have to do a lot of editing work.’ (SIRIM)

‘Since 1994 we have been current, and I insist English because I have goal, I want it to be indexed by this database. If I want that I have to play their game for example I cannot be late I must be current.’ (UM)

According to an interviewee, to have mixed languages in a journal does not help because the indexing agent will not have the expertise to translate the articles:

‘The trouble with Malaysian journals is that they are not current, that's one thing and they liked to published in mixed language now indexing agencies don't like this because the don't have the expertise to translate your Malay language papers to English abstract and also as far as science research, we are not yet in the forefront. We are fussy with things like this then we never go international. I mean they'll never bother to indexed our journal anyway, I think our journals' editors and publisher must be conscious in wanting to be indexed by these agencies.’ (UM)

Another advantage of journals published in English is that international writers may send their articles, which would increase the journal's status. This will lead to the recognition needed by local journals. However, as an editor, one interviewee said that she had to do major editing to improve the article writing which is in English.
'They write! Because we have to publish, but when the papers come here, I have to do sometimes major editing.' (SIRIM)

'I'm not sure whether English language is the reason why people don't write. From my experience there is problem in language. From the script given, we have to make a lot of language editing for both English and Malay.' (MARDI)

To overcome the English writing problem and to encourage people to write more than one organization had created a coach system, where a language expert would help researchers who have very good content but lack writing skills in the English language. They may get help from someone outside the field who is good at writing. The person who coached the researcher in writing will be paid by the researchers' organization:

'People who use to write will stay together with the younger researchers to coach. It is language coach.' (MPOB)

'They are outsiders. They will sit and ask question on what the researcher is going to write, and then make the draft, improve in the form that can be read and understood.' (MPOB)

Majority of the interviewees refer to people's attitude and the culture as not responsive enough to online journal publishing activities. From the interviews it is highlighted that people in general have negative attitude towards writing, publishing, and IT.

'I think is the attitude. If they are interested in the new technology they will do it to follow the trend.' (UPM)

'I think the lack of skills. The authors don't want to try the new technology. It is easier with the old way, because to publish in online journal, they have to learn the new system. This is particularly true with the old authors.' (UPM)

'Obviously it is the attitude problem. The knowledge and awareness about what you suppose to do. People are doing something without really thinking. Actually I do not have time to find why people don't want to publish. I just ask them to write and tell them how to write because I have target for this Press, 100 books a year.' (UiTM)
‘To me publishing a journal is not easy because it is not a culture of our people. They just don’t like to write for journal.’ (MARDI)

‘Right now we still have old generation. They don’t want to try IT. Younger generations prefer the online. Generation aged 45-50 is scared to try the IT. Some of them still don’t know how to switch on the computer.’ (MARDI)

‘Maybe culture. Our culture is the kind that doesn’t like to sit in front of computer.’ (MARDI)

‘Maybe they are shy, but I think it is attitude.’ (MARDI)

Another trait that emerged from the interviews is that people in the knowledge industry are reluctant to share the knowledge that they have.

‘They were very reluctant to share and they ask whether the university would recognize this publication or not.’ (Interviewee C)

‘We don’t have that kind of tradition yet. We don’t have any tradition on hardcopy, or even library. No one strong enough to start what the West have now. Everybody is scared and unsure. It is not really the online thing. Like when the government did the websites for all the Ministries last time. They cannot have done it without specific person that would in-charge the contents. That’s why all the government’s websites cannot survives. Technical person can just link to where ever they want or put the sound but you must have an author or at least editor. These people can create materials for the websites. Some people just put the Minister’ speeches in the websites, how many speeches you can have to make your websites up to date? That’s why many government’s websites looked unfinished because they don’t have editorial people, editorial team. The scholarly journal needs these experts, and we don’t have it. How to go online? We do have expert in computer maybe but that’s not enough. We need the articles, and people that expert in preparing articles, that we don’t have.’ (Interviewee B)

‘The information we get is for our own use and we are stingy. We won’t give to other people what we know. We are worried and scared if other people get the information. You see our Archive compare to the West. Our Archive look like doesn’t encourage us to access the knowledge they have, reluctant to give the materials.’ (Interviewee B)
‘I am putting a lot of teaching material in the Internet and people ask me do I not scared or worried. I said I have no problem and in fact I feel good if people access my material and read them because they appreciate the information. It is irony because they download other people’ materials but they are scared to put theirs online. People are scared of criticism, and it is the culture here. In my case if I have experience and I appreciated it why can’t I share with another people.’ (Interviewee A)

In fact not many younger generation have the sharing attitude. Like in our e-learning journal still many people are scared and I don’t know why is it because of criticism or something else.’ (Interviewee A)

No I don’t know but I still think in our culture there are elements that we don’t want to share.’ (Interviewee A)

The majority of the interviewees feel that it is the management’s role to oversee the weaknesses related to development of online projects. People are motivation, recognition, and supervision from the top management.

We have discussed but so far we have not decided yet because many things have to be streamlined. The management must make decision. Personally I think we should go online. But like myself I cannot propose because it is not my area.’ (SIRIM)

‘It is the university’ problem, that it does not force the researchers to publish, when people do research they must publish.’ (UKM)

‘However, compare to previous years, this year I get more articles. Maybe because of the promotion. Last time, people get promoted without publication. But I cannot say for sure. We just enforce the policy this year. The policy is there but we did not enforced. The management said must have publication before get promoted but many people get without writing.’ (MARDI)

The interviewees indicated that online publishing activities could easily be started in many organizations if this were to be deemed important by management.

‘The management is ok. Actually they did asked to publish the online journal and started to look for that sort of avenue.’ (MARDI)

‘Right now ordering can be done online but we process manually. That is what we do now. But the management wants the payment online.’ (MARDI)
‘We are also discussed with the bank how to proceed with that sort of things.’ (MARDI)

‘Our Director is supportive with this kind of things and we have management retreat every year to discuss these things. Every year we have to propose to the management what each one of us planning to do in the coming year? Usually I, in the Press do the administration aspect. But he wants we come up with projects. So I visited University of Amsterdam with Hasrom and see how they send the manuscript online and the print room only has 4 staff. They have Xerox technology to print everything including exam papers. I came back and proposed to buy the Docutech for RM1.7 million. Somehow when we merged (PORIM and PORLA to become MPOB) the proposal watered down, because they were many other bigger projects. The Director told me that the library has some system, and ask me to join in. So, it’s like that. But the bottom line is we must keep abreast with the technology. The information must be disseminated faster other wise no use.’ (MPOB)

However, the majority of the management in organizations had not been very enthusiastic about having online journals in their presses or organizations, which is why the development in this area is sluggish. To illustrate the situation one interviewee refers to the organizational website.

‘We don’t do it. If your VC, or dean willing to wait personally and monitor, give to people who can do the job and tell them that you want to see, every 3 months there must be updates or progress then I think you can see it work.’ (Interviewee C)

‘Unless if you get a person who is really willing to put that on top then you will get. I have seen like UM’s website where they don’t change the education faculty’s website for a year, last updated 2003, or 2002. UPM’s faculty of education’s website also the same, no change for 1 year, only recently they updated it. Internet you have to keep up, if not when people see 2002 and now is 2004 it is stink. You have to be Internet savvy to be interested in that field otherwise cannot.’ (Interviewee C)

From the interviews one of the ways to change people’s attitude in publishing is to simply force them.

‘If we look at our programs like e-learning, they still want to print, and they say going through the computer takes a long time. Why people I
mean the lecturers don't want to write, they must think that our professors has doing something about this and they just pass the bucks. They use the Internet but I don't know for what? They used the PTPN loan (education loan) for what? They take the loan but they did not buy a computer so a recent research by myself my PhD thesis, there are 60% of the 250 students that we survey they do not own a computer and their learning through e-learning mode. So I was wondering what's wrong? Is it funny you are in the e-learning mode the distance-learning mode but you don't have computer. Whereas now I think computer is not that expensive. They prefer to do it in cyber cafes, how do you learn in cyber cafes? Or they asked their friend to print for them they do not go to forum. So I think is basically we have to force people to change.' (UiTM)

‘Yes, I think enforcement can help a bit.’ (MARDI)

Putting a price of online journal

Several presses that currently publish back issues online or have parallel versions do not charge for their online version. For them the main thing is the visibility and the reputation gained from the free access. However, they are thinking of charging later when the journal is established and many people search for it:

‘Free. There are back issues, back by one issue. You cannot get the current issue online. We will put it online when the latest issue published. Actually this thing has effect on our subscription. People are willing to wait for six months to get it free online.’ (MPOB)

‘However, our idea is not to make money from selling journals, we want to sell oil. So the idea is to sell the information, disseminate information, and we don’t care much about money. We want our product which is palm oil can compete with other world cooking oil.’ (MPOB)

‘...so far it is still free, after all we are fortunate to be in this faculty, we have the facilities, we don’t charge people anything but I think we have started to build our reputation because now you can see that our journals is getting more and more articles from overseas. It is shows that the journals go international. It is no more depending on the local authors’ contribution. Latter the local authors have to compete.’ (UM)

‘At the moment it is free. Anyone can access.’ (UKM)
‘Later on, probably maybe we will charge say in 5 years time. Now I just see that the archives issues are popular. Usually the journals become very valuable when they are old now we have nearly 10 years so when we are 15, 20 years maybe we will charge when we have plenty of articles and stable.’ (UM)

For organizations that plan to have online version of the print journals, there are also talks about the possibility of charging for it:

‘Maybe for promotional, maybe for the first two volume I give it free, later on I'll start charging when we are more established.’ (UiTM)

**Monitoring the output**

Writing articles is encouraged and practised by all the organizations for promotion and tenure purposes. However, a number of interviewees said that they do not know for sure whether the researchers do not write or that they were already writing but their works are not visible or traceable. Apparently when the journals are not indexed the journals would not visible to others.

‘They publish and present paper but that’s all, we don’t know we cannot make any judgment because we don’t know. The problem here is we don’t have the list of publications based on the research grants that they obtained. If they produce something and get the patent we maybe don’t know because no list for patented research products either.’ (UM)

‘They are not visible in other people’ services. It doesn’t matter if our journals are cheaper, does it? We are sure that our journals have indigenous value such as in Malay studies, or history. I am sure it has very high indigenous value. Come to think of it I don’t know how researchers in Leiden (Leiden University) or SOAS (School of Oriental and African Studies, University of London) get their research materials. We don’t have a comprehensive indexes. What we have is patches here and there.’ (Interviewee B)

‘But in this world there are three levels of journal you know. First that is so high profile so it has high impact ok, this would be indexed by the journal citation index this is very few out of thousands of journals
in this world, maybe there are only for few thousand. The second levels are those who got indexes in the databases because they get visibility also. The third level is of course the national one, you know the national one only known by the people of the country. So here is no visibility and also when they do studies let say the practicality of an institution by for example the Asia Week or whatever, they'll looked at their publications in this visible indexing body, so that's why most of local universities don't get fair deal because they don't bother to get their journals in there.' (UM)

Some interviewees also mentioned that people prefer to present in the conferences and publish in the proceedings. However, articles that appear in conference proceedings would not be visible except to those who attended the conference. Thus, monitoring the output is very important in order to know exactly where all the research findings have gone. One interviewee pointed out:

'Right now we don’t monitor the output. I have thought long time ago that we should have repository for research output. So far in Malaysia we only measure the input based on the value of the grants. But where is the result? In the annual report of IRPA? They don’t have the list of publications there.' (UM)

'For articles regardless in conferences or in the e-journal should be in the repository.' (UM)

Monitoring could also be used to measure whether the research budget had been used productively. As such it is the sponsor's responsibility to come up with procedure and enforce it.

'It should be come from central I mean the body who given the money. You must request the output for example in the form of softcopy or anything that being published and people would do so. Its just there’s no directive no enforcement. So anything that is published they only need reports from us. They have our names and they can link to the publications then straightaway to the digital library, just upload. It is easier if our research results publish online. Other wise they need copies. In online there’s no problem to know the output or anything. From this they can measure that for example you were given RM 1 million but why only one publication for example. I think output is very important you must measure output.' (UM)
Different organizations have different ways of recording or monitoring the research output. The majority of organizations interviewed put the lists of the research topics in their Annual Reports while others either depend on the sponsor that provide the grants for research, or simply do not have it done:

‘We do have annual report and list of their names.’ (MARDI)

‘It is all in the annual report.’ (MPOB)

‘...you can check in the annual report.’ (FRIM)

‘Maybe you can ask the Ministry of Science or something. Coz usually, they should keep the database or something.’ (SIRIM)

‘Maybe the human resource’ department have it, but only for their file.’ (UM)

‘I think it is in their individual websites because I don’t see any of this anywhere. Last time UKM publisher did published the ten years publications by UKM staff. After that Mohd Salleh and than Sazali did the list. That’s what I told you it is not a comprehensive work. It is up to people initiative. We must have union index or catalogue.’ (Interviewee B)

Conclusion

This chapter highlights the perceptions of local university press administrators, faculty members of local universities as well as researchers on local online journal publishing activities. Based on the interviews, research activities are growing in Malaysia as were the areas of research, although clearer policy should have been drawn out by the top management to better inform the researchers on the opportunities to publish research articles in local or international journals. Several factors for the non-adoption of online publishing have also been identified, which can be divided into technological aspects such as availability of the hardware; and human aspects such as attitude of sharing knowledge, writing language, writing skills, plagiarism, perceived low quality of online journal, recognition, and organizations’ own policy towards online journals. The majority of the presses are positive about
online journal and would work towards this in the future while some presses already have some kind of arrangement in this activity.

A number of interviewees had also mentioned that, as researchers they do not really care about the medium as long as it is recognised by the organization for promotion purposes. If the online journal were available the researchers would use it. As such it appears that the presses need to develop online journals for their researchers to publish their research in the near future. The presses needed the researchers for materials while the researchers must be assured that they could rely on the presses to publish their articles in the prescribed time, a win-win situation. The next chapter will discuss in further detail the analysis of the research findings in order to better understand the attitude of Malaysian researchers towards online publishing.
Chapter 7

Discussion

Introduction

The study intended to determine the adoption of local researchers towards online publishing, particularly online-only journals. From the study it is identified that very few local higher education and research institutions had pursued online publishing activity, although local researchers are aware of the importance of online journals in their academic work. There is no online-only journal known to be published in Malaysia.

This study is exploratory in nature, and data collected from the self-administered questionnaire is analyzed using non-parametric data analysis. Data from the interviews is also analyzed and discussed to support the data from the questionnaire. This study discussed four elements assumed to influence local researchers' attitude towards adopting online publishing. They are: respondents' background, availability of technology and skills, support factors and publishing trend among researchers.

Respondents' background

Demographically, the respondents were relatively active in research activities. Most of the respondents were Malay, which corresponds to the majority of Malay (77%) working in the public sector compared to other ethnic groups (CPPS, 2005). The majority of
respondents were young researchers between the ages of 31-35 years old. The positive responses towards online journal publishing came from those who possess PhD and had been exposed to Western education systems. The data also points to a correlation between the various publishing-related factors and either adoption or non-adoption of the respondents, which will be discussed under the publishing adoption element. The demography of the respondents shows some state of mind towards online publishing. This is especially true for some items such as age, gender, ethnic group, and institutions where they obtained their postgraduate degrees.

a) Age and the adoption of online publishing

From the data, senior staff are hesitant to use computers. Younger generations are more inclined to use computers in their work, searching for information and disseminating research results. Many studies had shown that the younger generation is more conscious of, and has a high degree of acceptance and adoption of technology. For instance, a study by McKnight and Price (1999, p.571) has shown that the usage of WWW for research is common in the age group under thirty. In addition, Björk and Turk (2000) noted that young researchers would search the Internet, especially to find free electronic journal articles, including working versions posted on the home pages of the authors.

b) Gender and the adoption of online publishing

In term of gender, 60.1% of males and 39.9% females responded to the questionnaire. This is not the reflection of the Malaysian employed population aged 15 to 64 years where 5.3 million males and 2.7 million females (Department of Statistics Malaysia, 2004). This may be due to the situation where females are employed more than males in the clerical sector (489,344: 276,113). However employment in the professional sectors is not so significantly different, as males make up 262,126 whereas females follow at 187,117.
Less participation from females may be due to the fact that the questionnaire was sent via the Internet. Females were said to be less interested in dealing with technology (Durndell and Haag, 2002) and perhaps reluctant to answer the questionnaire online. In term of adoption of online publishing, male response is higher than female, although there is no significant relationship.

c) Relationship between academic qualification and institutions attended with adoption of online publishing

The academic qualifications and the institutions where the respondents obtained their degrees seem to contribute to the adoption of online publishing. From the questionnaire survey and the interviews it was discovered that people who have their higher degrees (masters and PhD) from Western countries are more positive than others to adopt online publishing. Having experience in research during their study period might incline them to do more research and publish more research for promotion purposes.

When people went to study in Western universities there were exposed to technology, including access to online journals, research processes, and most importantly to the English language. Their exposure may have opened their minds and altered their adoption and perceptions towards online journals in general. They may cultivate writing skills, and publish articles using the English language. Publishing in online journals is usually in the English language for the purpose of reaching wider audiences.

d) Ethnicity and ICT

There are three major ethnic groups in Malaysia, Malay and indigenous (65.1%), Chinese (26.0%), and Indian (7.7%) (Department of Statistics Malaysia, 2004). While the ethnic groups are seemingly integrated, each obviously dominates certain areas. The Malays dominate rural areas, and form the majority of civil servants. The Chinese dominate urban areas, are involved in business, and have an upper hand in the nation's economy.
The majority of them work in the private sector. The Indians were brought by the British to work in the plantations. Until now, the majority of them are still occupying the palm oil and rubber estates throughout the nation, especially in peninsular Malaysia. After 50 years of independence, the division is still clear, and so are the corresponding subcultures of different ethnic groups.

As the survey was conducted at public universities and government research institutions, it is not surprising that in this survey the majority of respondents were Malay, as the majority of them are working in the public sector. It is worthwhile to note that although Chinese only formed 8.2% of the respondents, they have the highest adoption towards online publishing (36.7%) compared to Malays (29.7%).

The Chinese in Malaysia are known as a hardworking and entrepreneurial ethnic group. They are more involved in the economy and have more chance to be exposed to and use the technology. As the majority of them are involved in business, they are used to taking chances and risks, compared to Malay or Indian ethnic groups. The majority of Malaysian Chinese are still practicing the culture of Mainland China, although the new generations have assimilated it with various cultures in Malaysia. Hofstede’s fifth dimension is the ‘long term orientation dimension’ or ‘Confucian dynamism’, as this dimension was found, when working in the Far East (Chinese) community, to be useful to explain the Chinese ethnic attitude. The features of this dimension are perseverance, which is essential in entrepreneurial activities, thrift, and concern with the pursuit for virtue. Malaysian Chinese, especially the younger generation, are seen as more advanced in adapting and adopting technology.

e) Place of work

From the data, the majority of the respondents are university lecturers, although questionnaires were sent to 1,106 researchers at research institutes all over Malaysia. Respondents from the universities have a higher percentage of adoption (30.7%)
compared to respondents from the research institutes (26.7%) however the statistical test did not show any correlation between place of work and adoption of online publishing. This is may be due to the fact that publishing is part of an academic's life. Their tenure and promotion are dependent on research and publications. Recognition from peers is important for academics. They have to conduct research and publish more regularly using both available channels, print and online to establish themselves.

As for researchers in the research institutes, publishing is encouraged but the demand is not as crucial as for academics. Researchers in the research institutes are conducting research as their sole duties. They would not be promoted to a professorship based on the number of their publication as would the academics.

f) Designation in relation adoption of online publishing

It is found that associate professors have the highest percentage of adoption (34.7%) compared to other groups. Being in the middle of the hierarchy between lecturer and professor, the associate professors have another stage to go. As promotion will depend on the quantity of publication, they are actively involved in a lot of research and are more receptive to several alternatives in publishing, including online journals, in order to get promoted to a full professorship.

g) Working duration and the adoption of online publishing

From the data, respondents who had worked for between 6 and 9 years have the highest adoption (44.6%). Respondents who had worked for between 10 and 13 years have the lowest adoption (20.0%). It is assumed that the respondents with 6 to 9 years service are more active academic members in doing and publishing research in order to be confirmed in their positions or to get their promotion. For respondents of 10-13 years service, the momentum of conducting research might be slower due to the longer period of service or
had reached their target position of professorship. In the interview it emerged that people who had their professorship were reluctant to publish more. One interviewee claimed that this is due to the perception that publishing is for promotion, not for the sake of disseminating knowledge.

h) Field of expertise and attitude towards online publishing

A large percentage of respondents come from the Hard Sciences area, followed by an Engineering background. Very few were from the Arts. People from the Science background are presumed to be more exposed to technology and thus are more likely to answer the online questionnaires sent to them, compared to people from the Arts.

Although the field of expertise has no significant relationship with adoption, respondents from the Hard Sciences field do show the highest adoption (34.7%) compared with other fields of expertise. Research in science is conducted in laboratories, which are usually equipped with high-end technology and ICT facilities for scientists. As they spent a lot of time in laboratories, the Internet provided the convenience of data management for retrieval and dissemination purposes with their peers. As such, they are among those who are active in research using ICT. The Internet has opened new horizons for these people. They get plenty of information through the Internet. Sciences such as physics, chemistry and medicine were among the first subjects that pioneered the use of the Internet for dissemination of information. Hard Science researchers are presumed to be more exposed to online publishing during information searching, and this influences their attitude to adopt.
Availability of technology and skills

In terms of the technological availability, the majority of the respondents reported that they have access to computers and Internet, at home and the office. Researchers and academics use computers in their daily work and are familiar with several applications such as word processing software and e-mail. Some of them are familiar with creating PDF files and HTML for documents. As researchers they are familiar with access to online journals to find information. From the interviews, the government has also been credited with facilitating research institutions with the latest ICT infrastructure. Various policies have been devised and implemented towards this end. The majority of the respondents also reported that they do have the basic skills in relation to ICT usage that are relevant to their academic work.

Although the price of a PC is quite high, about one third of average Malaysian annual disposable income of about RM7,000 a year (http://www.asianz.org.nz/files/asiato2014-malaysia.pdf), many Malaysian homes have computers. However, not all homes that have computers are connected to the Internet. From the survey it was found that 70.1% of respondents can access the Internet at home and 98.4% can access the Internet at work. Based on the statistics, 37.9% (10,040,000) of the population in Malaysia in 2005 could access the Internet; Malaysia ranked 20th in number of Internet users behind Brazil (10th), Australia (17th) and Netherlands (18th) (http://www.internetworldstats.com/).

The Malaysian government is encouraging people to own a computer at home, so that people learn ICT skills and become more knowledgeable. For this purpose the government has initiated several schemes, such as the easy payment scheme through the post office, withdrawal from social security savings, and a computer loan scheme where government workers can purchase the computer through installment payment (Noor Ismawati and Ainin, 2005).

Apart from their home and office, people can also visit cyber cafes, which has been increasing in number in Malaysia. However, data from previous research showed the
Internet in Malaysia was used only at the basic level of knowledge, that is the exchanging of information. The most common activities are chatting (28%), e-mailing (19%), and games (10%) (Jaring Internet Magazines). The majority of Malaysians use the Internet for entertainment and communication rather than for more serious endeavour.

Data collected from the questionnaires shows that although the majority of the respondents could have access to the Internet at home or at the office, their adoption of online publishing is still lower than the non-adoption. Respondents are not inclined to publish their research results online. The accessibility and the availability of technology in Malaysia seems to have little influence on people to adopt online publishing.

Previous studies (Slone, 2003) have shown that experience and skills in using IT would contribute to the adoption of IT. Bill (1997) noted that familiarity and perceived usefulness contribute to successful adoption of technology. Davis (1993), using the technology acceptance model (TAM), indicated that perceived usefulness and ease of use have a strong effect on adoption of information technology. Other research noted that computer anxiety influenced computer usage in a negative way (Brown, 2002).

In the interviews it was found that online publishing was hindered because authors do not want to learn and use the new technology. They prefer the old way of publishing and printing because they can touch and hold the books in their hands. This is due to their attitude and not because of technology. Researches into development of the information society often discover that human development is a crucial factor (Lim, 1999). Zainab (2005, p. 61) noted:

“The main limitation with regard to e-publishing is the ‘human factor’, that is, the reluctance of academic publishers to participate, even though there are assured that only very basic ICT skills are required to utilize the host. A change in mindset is inevitable for e-journal publishing in the Net environment”.

182
Although the majority of the respondents can use MSWord and e-mail, surf the WWW, and some can create PDF and HTML, many considered that they still have no skills to engage in online publishing, and this discourages them from publishing online. On top of that, local publishers such as university presses and the research institutes’ publishing units also have not gone into online publishing yet because the majority of them realize that they have no skills and manpower to start online journal publishing.

Support factors

Apart from extensive public sector support for ICT infrastructure, individual public higher education and research institutions also play a major role in support of research activity. The respondents reported that the recognition of online-journal publishing by the management as well as a clearer policy on online publishing would be a major boost for the researchers to be more active in publishing online. In terms of factors that impede online publishing, after lack of funds to set up and maintain online publishing activities, the majority of respondents cited no technological know-how and no recognition from the institution. It is interesting to note that both datasets from the questionnaire and the interviews points to a similar requirement by the respondents, which is organizational support.

To ensure that people take up any new challenge, support must be given by relevant segments in society. This is particularly true for any adoption of an innovation that the majority of people are not familiar with. Researches have shown that support (Norhayati, 2000), as well as organizational support and social pressure, are the factors that influence computer usage in developing countries (Anandarajan et al., 2002). In Malaysia, like other developing countries, support is very important in any new venture, particularly in ICT-related ones. The Malaysian government has encouraged the people to embrace ICT through its transfer of technology policy, in realizing the nation’s dream to be a developed country by 2020. Technology was brought into the country together with experts to train Malaysians.
In the 1990s, the public sector, especially universities and research institutions, were getting a lot of technology, hardware supplies and training programmes. With this, people were expected to start working and excelling in whatever ICT can offer. The Malaysian government had spent millions of Ringgit to bring in the technology and to train Malaysians in ICT. The process of leapfrogging adopted by the government is to ensure that Malaysia will get the status of a developed country in the year 2020. The technology is definitely here to stay, and must be utilised to the maximum, otherwise it will become a “white elephant”, in that something that is good to see, has very big potential but is useless because of a lack of capability on how to use it.

One of the things that technology could do is communicating through online publishing. As discussed previously in this chapter, the majority of the respondents could access the technology, and they have some relevant knowledge on how to use it. As researchers are encouraged to embrace ICT in conducting research and disseminating research results, they must be convinced that by using ICT they are better positioned among their own peers.

According to the Technology Acceptance Model (TAM) theory, people adopt ICT if they see it is useful. Thus before adopting online journal publishing people must see that it is as useful as print journals. From the survey, respondents thought that recognition of online publications is important. Authors also see that recognition, either from the organization or from peers, is utterly important, because the reason they publish is for career advancement as well as sharing knowledge. From their point of view, there is no point in publishing if it does not help them in promotion exercises, or nobody cites the publication.

Many authors and organizations in Malaysia are not accustomed to publishing in online publications and some still perceived online publications as inferior. They are sceptical of the online journal’s credibility, because some interviewees indicated that to publish in online journals was so easy in terms of acceptance and very fast in terms of review that they doubt the quality and the validity of the journals.
This situation has an impact on recognition by the organizations. There is no clear written policy on whether the online journals should get due recognition. At the time of the study, organizations in Malaysia had varied perception towards online journals. Nicholas et al. (2005, p. 219) noted that authors were discouraged from publishing in online journals because they thought, “publication in online journals will not count at all toward promotion”.

Respondents also took the view that ‘back up from institution’, ‘policy on online publication’ and ‘availability of funding’ are important supporting factors. Back-up from their institution can be in the form of finance, management, training, recognition, and a clear policy on online publishing. Other supporting factors are direction from the management and the allocation of specific space in the organization for online publishing activities. Without these factors, some respondents perceived that the adoption of online publishing might be slow.

This is parallel with reasons given by more than half of the respondents, who agreed that ‘no funding to set up and maintain online publishing activities’, ‘no recognition from institution’, ‘no technological know-how’, ‘no support from institution’, and ‘no suitable hardware available’ as hindering factors to the adoption of online publishing.

Although the majority of the respondents have been using computers and the Internet in their daily life, they still need a lot of support in embracing online publishing. The support from their organization is especially important due to the nature of the activity, which is new and involved with technology hardware and skills. The support can be manifested in the direction from the top management. Many organizations take the view that directions from the top or requests from authors would make them start online journal publishing in their respective institutions.

To understand why this situation occurs in Malaysia we have to understand the overall Malaysian situation. Information technology was brought into the country by a top-down policy. The technology is enforced upon the people so that the country can be a
developed country by 2020. In Hofstede’s culture dimension, Malaysia is ranked first in the list of 53 countries investigated, with power distance index (PDI) of 104 (1991, p.26). The PDI score measures dependency relationships, which in this case shows that Malaysia is a large power distance country, experiencing considerable dependence by subordinates on bosses. Staff would need assurance from the boss that publishing in online publications would get support, including recognition.

According to Hofstede (1991) further, Malaysia ranks 46th of 53 countries in uncertainty avoidance index scoring 36. Malaysia is considered as medium-low country. Uncertainty avoidance is defined as “the extent to which the members of a culture feel threatened by uncertain or unknown situations” (Hofstede, 1991, p. 113). In a country with a weak uncertainty avoidance people are describe as quiet, easy-going, indolent, controlled and lazy (Hofstede, 1991. p. 115). In the workplace, people can be “quite able to work hard if there is a need for it, but they are not driven by an inner urge towards constant activity. They like to relax” (Hofstede, 1991. p. 121). As such, organizational support is needed to encourage the researchers to publish online journals in the face of the uncertainties of whether or not the online journal publishing will do well or otherwise.

This shows that if there is no strong support, especially from organizations and the government, people just have no confidence to undertake online publishing. They fear lack of recognition, or that the publication will just stop due to unresolved problems. Until everything is clear they will not start online publishing.

**Publishing attitude among local researchers**

Publication of scholarly articles has gone on for more than three hundred years. There are two main reasons why scholars publish and disseminate the results of their work—“to advance intellectual progress” and “to establish rights over any intellectual advance they may themselves have brought about” (Oppenheim, 2005, p. 3). In many ways the number of publications they have published measures the achievements of academics. In the
United Kingdom, as Feather (2003, p.71) reported, “the whole system of academic appointment and promotion, and in the United Kingdom the use of publications as a means of evaluating and subsequently funding university departments, has forced academics to publish more.”

Similarly, publishing research results is part of the respondents’ responsibilities as academics or researchers in Malaysia. The majority of local researchers agree that publishing research results is vital for career advancement and sharing knowledge. The respondents are aware of the importance of publishing research results, but in reality, many have not done so for various reasons that have been discussed earlier.

From the questionnaire, the majority (185) of the respondents had published between 1 and 9 articles over the five years 1998-2003 regardless of the number of authorship, while 42 respondents reported that they had not published at all. However, the situation is not supported by the interview data, where the majority of the interviewees pointed out that they have problems in getting articles. This has contributed to the delay of publication and consequently they are not able to get cited by the indexing agents. The lack of publications also brought forth questions about the publishing trends or culture among local researchers. The fact that local researchers conduct research does not necessarily mean that they will publish the results. As such, information about their research remains unknown. Local researchers are then presumed to be inactive when such presumptions could be inaccurate. In the West, the number of journal articles published could measure the amount of research done. This may not be the case in Malaysia.

With regard to Malaysian authorship, 80% of the articles were joint authored, of which 40.3% were two-authored works. Single-authored and more than three-authored works are not common (Gu, 2002, p. 978). This scenario is also recognized by Weller (2001, p.121) who said, “there is an-ever increasing rise in the number of authors per article.” This study confirms previous findings, with a large percentage of respondents co-authoring. However, in terms of number of articles written, single authors produce more articles than the joint authors.
In multi-authored articles, authors have to decide the order of authors' name in the articles based on responsibility (Weller, 2001, p.120). Gu (2002, p. 978) indicated that the most active authors' names, positioned first, appeared in a smaller number of their publications, and in many instances productive Malaysian authors seemed to assume supportive roles, assuming that the first named takes on leading role. This is may be due to the senior positions held by the productive scientists within their organizations.

Although publishing in print journals gained higher consideration in promotional exercises, many Malaysian authors published in conference proceedings. From the questionnaire survey, respondents prefer to publish in conference proceedings. The data also showed that very few respondents had never published in conference proceedings. This means that respondents were inclined to present their paper at conferences and publish in grey literature that may not go through peer review.

Publishing in conference proceedings may be faster than in journals, there is less risk of being rejected (provided the topic is relevant), and it is less demanding in preparation compared with journals. Besides, researchers saw it as a reward, as the organization will pay for the traveling expenses when they present in a conference away from their work place. One obvious reason for the preference for publishing in conference proceedings and local print journals is that the standard of writing may not be as stringent as in the international journals, and yet their work is documented. However, publishing in these publications may result in less, visibility, due to the low impact factor and recognition. The international indexing agencies will not index these publications and peers thus know them less locally and internationally. Furthermore, many conference proceedings in Malaysia are printed and circulated for free to certain organizations' libraries or individuals.

Other print publications that publish research results are local print journals, local print journals with international status, foreign international print journals and print monographs. Publishing in local print journals is also preferred by a large number of
respondents on a frequent or occasional basis. Many of these journals accept papers in the Malay language as well as the English language. This gave wider options for respondents who are not fluent in English. Normally, local journals with no international status are created to function as a channel for a department or faculty to encourage their staff to write and publish. The review process and editorial processes are handled internally on a voluntary basis. Some of these journals are circulated free of charge, while others may be sold at very low prices. One of the reasons for writing more in English in this study may be because the questionnaire was in English, and as such those who answer the questionnaire are assumed to be familiar with English compared to those who did not respond. Another reason is that probably only those who are familiar with the language are keener to write in English.

Journals with international standards may circulate regionally and internationally. Neighbouring countries such as Singapore, Indonesia and Brunei may subscribe to journals in the Malay language. However, the number of subscriptions is very small. For those who were able to write in English, the preference is for publishing in local print journals with international status or foreign international journals, for visibility.

From the interviews, publishing in local journals is not regarded as highly as publishing in international journals published in foreign countries. Publishing in the international journals published in foreign countries is given high consideration in promotional exercises by many organizations. This discourages good authors from submitting to local journals and thus reduces the impact of the local journals. Eventually these journals face difficulties in sustaining themselves.

Based on a bibliometric study, it is shown that university researchers in Malaysia contribute more compared with researches in research institutes (Table 7.1) (MASTIC, 2004). This result is supported by a study on patterns of reading, suggesting that "scientists who work in academia generally read more than those in corporations or government laboratories" (Tenopir et al., 2005, p. 786). Though in the teaching profession one needs to read, this reading pattern also explains why academics write
more compared to researchers in research institutes, because one has to read before writing.

Table 7.1: Articles published by institutions (source: MASTIC 2004)

<table>
<thead>
<tr>
<th>Institution</th>
<th>No. of articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Malaya</td>
<td>4,216</td>
</tr>
<tr>
<td>University Science Malaysia</td>
<td>2,790</td>
</tr>
<tr>
<td>University Putra Malaysia</td>
<td>2,489</td>
</tr>
<tr>
<td>National University, Malaysia</td>
<td>1,692</td>
</tr>
<tr>
<td>University Technology, Malaysia</td>
<td>511</td>
</tr>
<tr>
<td><em>Institute of Medical Research (IMR)</em></td>
<td>492</td>
</tr>
<tr>
<td>Malaysian Agriculture Research and Development Institute (MARDI)</td>
<td>347</td>
</tr>
<tr>
<td>Palm Oil Research Institute of Malaysia (PORIM)</td>
<td>304</td>
</tr>
<tr>
<td><em>Mineral and Geoscience Department</em></td>
<td>286</td>
</tr>
<tr>
<td>Forest Research Institute of Malaysia (FRIM)</td>
<td>228</td>
</tr>
</tbody>
</table>

* Institutions not included in the questionnaire

Writing skills

Clearly, researchers in Malaysia are not actively involved in writing and publishing their research results. Among the reasons given in the interviews is that people are lacking in writing skills and it is difficult to start writing. To write an article need skills which are rare among academics or researchers, because their expertise is not writing, but teaching or doing research. To overcome the deficiency in writing skills, several organizations had conducted a series of writing courses for their staff. However, based on the experiences
of the interviewees the courses had not helped much, because many were still not writing after attending the courses.

Interestingly, according to interviewees, the lack of a writing attitude among researchers is due to the educational culture and to a certain extent, the school system. In the Malaysian school system getting good grades is the priority. However, the system does not consider factors such as critical thinking. Pupils are taught and expected to memorize for the examination and answer the questions, which are usually constructed with multiple-choice answers. The school system does not encourage writing and publishing to become a culture either. Pupils do not read texts outside the curriculum because there is no real need for them to do so.

The reading habit among Malaysians is not high, although Malaysians read on average two books a year (Siti Aishah, 2003). Despite this, in the survey by the Economic Planning Unit (http://i-baca.pnm.my/kajian/kajian_en.asp), the literacy rate is quite high (93.8%). However, the types of reading materials that they read are newspapers (79%), books (52%), magazines (47%), and comics (32%). Among the reasons given is that they are not interested in reading or that they have no time.

Publishing in journals, though regarded as important especially for researchers in Malaysia, is hardly considered as something that you have to do. As a researcher, publishing in journals is encouraged. In Malaysia the culture of writing and publishing in general is very new compared to the West. The publishing industry, especially for scholarly work, is not very rewarding. Scholars prefer to do consultancy work or part-time teaching in several outlets, such as in distance-learning courses or off-campus courses. People can get a lot of money by doing consultancy work rather than writing journal articles, which are not as rewarding.
Unwillingness to share

Although the majority of the respondents of the self-administered questionnaire said that they publish because they need to share knowledge among their peers, the interviewees said differently. The interviewees revealed that Malaysian researchers are not willing to share. They like to keep their information to themselves, for reasons that are unclear. That is why many organizations’ presses cannot get articles to be published.

To publish in online journals is even more challenging. Peers all over the world may gain access to the articles. This might further reduce their willingness to publish, because their work is open to criticism. A number of interviewees said that Malaysians are not open to criticism compared to those in the developed countries. People like to have and maintain the status quo. For instance, a professor may not like to have an open disagreement with a subordinate. This type of attitude has its correlation to the Malaysian culture itself, which emphasizes self-worth and face value.

In Hofstede’s culture dimension of individualism, Malaysia is ranked 36th with an individualism index of 26. What this means is that Malaysian society is low in individualism but high in collectivism. In a country with low individualism, “direct confrontation of another person is considered rude and undesirable. The word ‘no’ is seldom used, because saying no is a confrontation” (Hofstede, 1991, p. 58). Low individualism is also associated with high-context communication, where one has little to say or write because most of the information is subsumed either in the physical environment or within the person himself/herself. There is also little in the coded and explicit part of the message. This is opposed to high individualism, where people have low-context communication and most of the information is vested in the explicit code.

When people do not like confrontation, they will usually keep quiet, always apparently in agreement with the other party although the truth may be the total opposite. These are other characteristics of low individualism given by Hofstede. Thus the reluctance to share knowledge among local researchers may be not be due to selfishness, but rather to avoid
confrontation. Much information earlier, especially before independence, was passed down through the generations without written documents. If documents were published, the names of the authors were normally not given. To Malays especially, one should not claim knowledge as one's own. As such, getting paid for publishing information is not in the Malaysian culture.

**English language skills**

Malaysian authors and publishers are facing a dilemma on what language to write and publish their scholarly works in. The indigenous language is important in terms of identity and nationalistic issues. Research results should be disseminated for the use of the citizens, and therefore must be published in the language that can be understood by the majority of them. Publishing very good research in the indigenous language in local journals may eventually promote the language and the country.

Malaysia aspires to achieve developed country status by 2020, through strategic positioning within the global society. Towards this end, the English language is becoming a vital language in Malaysia. People are encouraged to use the language in both formal and informal settings. The language is even promoted as a medium for science and mathematic in the national schools in place of the Malay language. Some quarters see the new development as confusing and even a step backward (Liu, 2005). English, on the other hand, is used in all of the private sector, including private universities, and also for international correspondence. Lay people and the government sector use Malay.

In other words, the public universities and schools are churning out Malay-speaking graduates whom will eventually work in public organizations. The private sector does not use the Malay language widely, nor are they extensively recruiting graduates from public universities. Finally, people who are employed by the government sector are generally assumed to be incompetent in the English language. A number of interviewees pointed out that researchers are reluctant to write because they are incompetent in English.
language. At least one organization had engaged coaches to help these researchers to write articles.

Post independence, the government of Malaysia has sent many students overseas, especially to the UK, USA and other European countries, as well as to Middle-east countries. Many scholars who had their higher education in foreign countries are not exposed to writing in the Malay language and are therefore not competent in writing in the indigenous language. However, studying in the West will not guarantee that they are able to write in good English. This has created the ‘half-baked’ syndrome. Some researchers may feel that writing in Malay is not perceived as prestigious, because people from other countries cannot understand the materials, but at the same time they lack the skill to write in English. At the end of the day, these scholars cannot deliver their articles either in English or in Malay and this contributes to the shortage of articles for journals.

There is an assumption that publishing in English will gain recognition. Articles will be widely read by fellow researchers locally and globally. In order to establish themselves internationally, organizations normally encourage their researchers to publish in international journals. Thus, the organization would value and give due recognition to those who publish in international journals. Some organizations were not giving any credit to staff who publishes in local journals using the Malay language. Local journals, especially in the Malay language, are perceived as low in standard and hence receive fewer contributions. This scenario contributes to a lack of healthy development in local scholarly publishing activities.

Local journals, either in print or in parallel versions which aspire to go international chooses to publish in English. They believe that recognition can only be achieved by publishing in the English language because of an assumed wider audience. The visibility of articles written other than in English is reduced. Authors who write more papers in English were more inclined to publish in online journals. From the survey, people who are actively writing and write in the English language have a positive attitude towards online publishing (Table 5.26).
Writing articles in decent English to ensure publishing in an international journal may be difficult for many Malaysian researchers. Although English is a second language in Malaysia, and is taught at all levels in education system, non-native speakers face a great challenge and many setbacks. Pagel et al. (2002) noted that non-native speakers have difficulties in expressing their thoughts in English. Babor et al. (2004) have mentioned that researchers in developing countries are facing difficulties in publishing their findings due to several reasons; among others is the difficulty of writing in a foreign language.

Those who manage to write ‘decent English’ and are brave enough to submit work to international scholarly journals may face another challenge. The written English may not seem good enough to native speakers. A lot of editorial work may cause delay or rejection in publication. From the native speakers’ point of view, the non-native speakers’ articles look less intelligent and unacceptable for publication (Pagel et al., 2002). This bias factor had been noted by Nicholas et al. (2005, p. 214): “some believed that negative attitudes prevailed among editorial teams and referees in developed countries towards papers submitted by authors from developing countries.” Stenius (2004) et al. (p. 36), quoting Gosden, said “about one-third of the responding editors reported that bias existed against papers submitted by writers who did not have English as their native language.”

As for resources for local research, many are written in English as well. This limits the acquisition of information among non-native speakers. Kargbo (2002, p.101) noted, “Colonial languages such as English and French are widely used in publishing materials in developing countries. The use of these foreign languages has made it difficult for individuals to learn to read and develop reading habits.

**Publishing factor**

From the questionnaire data, a number of factors are identified as influences on the decision of local researchers when considering where to publish. The reputation of the
journal is the most important factor perceived by the respondents, followed by the impact factor of the journal. These factors are typically characteristics of print journals. On the other hand, the respondents perceived factors such as inclusion of colour images, video or sound as the least important. These characteristics exemplify online journal publishing. What this points to is that local researchers are more inclined towards the print journal format as opposed to the online journal format.

Authors are more concerned with the reputation and the impact factor of the journal which are always associated with an established journal, in print form, reviewed, enjoying international status, and most probably indexed by the international indexing agencies. Authors are still reluctant to publish in online publications because they perceive that the publication has low or no reputation and has no impact factor. Other factors may include, as Ware (2005, p.196) had noted, that authors are still reluctant to publish in online only publications, probably because of several factors, including low prestige, the fact that they are unlikely to be ISI-covered, and concern about the impermanence of e-only journals.

This study showed that respondents who write more articles have a positive attitude towards publishing in online journals. People who often write and publish are usually more open to different media that are available. As they are actively writing articles, they are more flexible in trying the new medium. Only after using it they would they decide to continue or to stop. As with other new inventions, the rejection stage would happen after trial (Rogers, 1995). According to Rogers (1995, p.221), the rate of innovation can be explained by five attributes: relative advantage, compatibility, complexity, trialability, and observability. Relative advantage is the degree to which the innovation is perceived as being better than the idea it supersedes, which is often expressed in economic profitability, social prestige and other factors. In this case, authors must first see that the online publication is better than a print publication before they decide to adopt it.

The second attribute is compatibility, which refers to the degree to which the innovation is perceived as consistent with the existing values, past experience, and needs of the
potential adopters. If the Malaysian researchers perceive that publishing in an online publication does not contradict their existing values and needs, they may consider adopting it. The third attribute is complexity, which refers to the degree to which the innovation is perceived as relatively difficult to understand and use. As publishing in online publication involve several stages, and other people such as publishers can perform some of the stages, the author may not need to acquire all the skills required in online publishing. From the questionnaire, the majority of the respondents have the basic skills to adopt online publishing.

The next attribute according to Rogers is trialability, which refers to the degree to which an innovation can be experimented with on a limited basis. If the Malaysian researchers have the opportunity to try online publishing and are happy with the outcome, then the adoption of online publishing is possible. The last attribute is observability, which refers to the degree to which the results of the innovation are visible to others. Visibility in online publishing is definitely higher than that of print, but only to those who have the means of access. For many Malaysian authors, the current period may be a trial period for online publishing, as many issues are still not clarified.

Another reason why online publishing has not attracted current Malaysian researchers is the issue of permanency. An interview with the presses has revealed the worries among authors and publishers about online publishing:

"But the print one must be there for record because it is more permanent. If it is in the Web when people deleted or changed it will be finished. Secondly, some people still prefer the first. For example we give information on why palm oil is the best compared to other oils? The gist we can give through online for the decision maker. But the details have to be in print, because people cannot read much on the screen. If they need the full information we will send the hard copy for free". (MPOB)

"I have seen journals that publish 1 or 2 issues and then discontinued. This could be a problem. So the continuity can be a question. From my experience there is journal that stopped halfway. If these kinds of thing happen it's quite difficult to really find out how are we going to secure. I don't feel secure in online journal like that. You don't know how long it will last." (Interviewee B)
The study further showed that depositing in preprint archives did not attract large numbers of respondents, although the percentage of respondents who agreed that preprint archives are important in their subject area was high. It can be assumed that preprint archives are important as a source of information but not as a channel to publish research results.

Peer review

The peer review process is important in scholarly journal publishing, especially for quality control (Rowland, 2002, p. 247). From the interviews, the respondents remarked that online journals are perceived as inferior to print in that the review process is too fast, raising doubt to the academic rigour. The majority of the respondents prefer to have a traditional peer review process, which usually practices the double blind method, whereby the reviewer does not know who the writers are and the writer does not know who the reviewers are. These respondents were assumed to disregard the open peer review method used by some online journals. However, they tolerate the use of e-mail to quicken the correspondence between the publisher, author and reviewer within the traditional peer review process.

On peer review issues, 91.1% respondents agreed that using electronic communication should speed up the peer review process. Malaysian researchers who are exposed to computers and the Internet realized that communication and correspondence can be made faster and more effective compared to conventional ways. The peer review process always takes a lot of time. Thus the peer review process can utilize the new mode of communication to their advantage. An interviewee mentioned,

"It’s a problem because they always take more time. Although the agreed time is about three months, they always go to six months and more. Then I have to send them reminders". (UPM)

To overcome the delay in the reviewing process, one press has to pay fees. Although it is not much, it does improve the time spend by reviewers.
"When I give incentive the feedback from the reviewers is faster and the report they give also satisfied. I pay RM150 for local reviewers and USD100 for foreign reviewers" (MPOB).

Peer review is accepted by the scholarly community as a means of quality control in journal publishing. This is consistent with the finding of McKnight and Price (1999, p. 567) that respondents perceived it to be important to both print and electronic forms of journals. In this study, the majority of the respondents agreed that peer review must be exercised on all articles regardless of publishing channels.

From the survey, the majority of respondents agreed to the statement ‘I prefer to submit article to journals that maintain formal peer review’. This was followed by a high percentage of respondents who agreed to the statement “traditional peer review is still relevant for online journal.” The least supported statement on peer review agreed by the respondents is “open review for online journal should replace traditional peer review.” The preference for conventional means of peer review for both print and online articles shows that respondents are not inclined to change the reviewing process to that being recommended or practiced by some of the online only journals, such as open peer review. Other studies had showed that open peer review may hinder the reviewer from reviewing objectively, and some scholars might refuse to referee openly (Rowland, 2002, p. 251).

Copyright

From the interviews, some had mentioned that some of the unsettled problems arising from publishing online are issues such as copyright and plagiarism that had impeded the development of online journal publishing. People are suspicious that their materials are being copied without permission and that this activity will be difficult to control in a virtual environment.

However, some of them, especially those who are involved in online publishing, have a different view on the issue. One of the interviewees made this remark
“If people want to copy they still can, but if they copy from the electronic form to check for plagiarism is easier. The thing is you want the information to be used by people otherwise what’s the point publishing. That’s people problem not technical”. (UM)

The interviewee foresees that controlling copyright issues is much easier made online and was very positive of the technological transition.

From the questionnaire, the majority of the respondents are in favour of authors retaining the copyright of articles rather than the publisher or the authors’ employers, but 38.1% of respondents preferred to transfer copyright to the publisher but maintain personal distribution rights. To some extent, Malaysian authors still care for their rights in their work, but are less demanding on who owns the rights when it comes to publishing and distributing them. As long as their work can be published and distributed, they are happy. They knew that when they work in an institution, they are bound to the rules. Many of the institutions where respondents worked have a publishing arm that publishes the institution’s research results. Thus, it does not matter very much if the institutions or the publishers have the rights over the work.

Electronic preprint archive

The majority of the respondents said that an electronic preprint archive is important in their subject, but very few claimed that they have deposited their research there. Even those who claimed that they had deposited in an electronic preprint archive listed it wrongly. Some mentioned the name of publishers or vendors as the archive. This shows that local researchers are not really familiar with electronic preprint archives.

Adoption of online journal publishing

The study also showed that people who write and publish more in print journals, especially in foreign international journals, have a positive attitude in adopting online
journal publishing. This means that the small number of respondents who reported having published in online publications in this survey are publishing more papers in print publications as well. They are most probably ardent scholarly writers, who know their subject area well, presumably have good writing skills, and possess a good command of English. Publishing in online publications attracts fewer authors, as the majority of respondents reported that they have never published in any online publication.

From the data, the majority of the respondents publish because of career advancement, followed by sharing knowledge. Respondents want their work to be recognized, particularly by the organizations where they work, and eventually rewarded in term of job promotion and tenure. From the interviews, it appears that people would publish if they were given some kind of reward or incentive in the form of money, job promotion, or overseas trips to present papers. In other words, people need an incentive to write and publish research results.

However, publishing sometimes does not secure promotion as intended by the researcher, because other factors that are quite prevalent in Malaysia, such as seniority ranking or other factors, will come into play. Although there are rules or procedures for people to get promoted, they are sometimes not enforced. The situation of disregarding publication for promotion may lead to dissatisfaction among researchers. Morris, Arzmi and Wood (2004) found that a large number of employees are latently dissatisfied about pay and promotion, and those are most likely to be dissatisfied are the Malay ethnic group, who are better qualified in the academic world. This will be expressed in a number of ways, such as lower level of performance and increase in absenteeism (Morris, Arzmi and Wood, 2004, p. 148). This situation may well affect writing and publishing activities.

The current condition of scholarly publishing in Malaysia

From the interviews it was revealed that local scholarly presses were facing various problems, such as lack of articles delaying publication, poor writing standards especially in English, and very small print runs. Many of the journals were very heavily subsidized
for their mere existence. This trend had existed for years and hurts scholarly publishing in the country.

Publishing scholarly journals in Malaysia is relatively young and troubled (Hew, 2001). Difficulties in getting good articles are among the obvious reasons that entail delays, or even annihilation of the local print journals. The majority of the presses interviewed mentioned difficulty in getting articles, and that this has caused delay in publication. This has resulted in their not getting indexed by the international indexing agents and hence low impact factors. In the interview with one university press, it was noted that:

"Last time our journals were indexed by international indexing agency because they were published on time. Now no more, because the publications were delayed for two or three years. Who will wants to index it? Sometime it is publish and sometime it is not. For example it should be out in July but not published until December" (UKM).

For writers who tried to publish in international journals, they were at risk of being rejected, for several reasons. Among others is the standard of English, lack of knowledge of journal formats, incorrect methodology, and lack of substance. Another interviewee pointed out that rejection occurs because of insufficient content:

"The rejection is seldom on language or style, I think it is of the essence" (Interviewee A).

Another reason is lack of determination among researchers. Articles often come back after the reviewing process for improvement. When there are a lot of comments and plenty of corrections to be done, researchers may not be interested in continuing with the submission. In addition, the local researchers are faced with biased reviewing. Van Rooyen (2001, p. 87) noted that bias occurred according to gender, geographically and institutional affiliation. Thus many good researches had not published. However, an experience writer performs better research and, writes better papers simply because of their experience (van Rooyen, 2001, p.87).
In a recent study (MASTIC, 2004), Malaysia was ranked 55th in the world, and contributed 10,538 papers in international journals, behind Singapore (42nd) and Thailand (52nd). The study reported the growth of knowledge output for the period 1955 to 2002. From 1955 to 1980, fewer than 100 papers were published in international journals in every two years in that period. In 1981 to 1982 an increase of 419.66% (from 117 to 608 papers) was reported. Then there was a steady growth during the period 1989 to 1994: during 1989-1990 the growth was 21.05%, 1991 to 1992, 20.80%, 1993 to 1994, 33.17%. However, the growth has declined quite considerably for the period of 1995 to 2002; for the period 1995 to 1996 the growth rate was 13.59%, 1997 to 1998, 13.63%, 1999 to 2000, 9.22%, and 2001 to 2002, 4.46%. For reasons already mentioned, Malaysian researchers were not very actively publishing in the international journals that are indexed by international indexing agents, and this lessened their visibility.

Local journals in the indigenous language rarely have international standards. They obviously cannot compete with established international foreign journals. Many local journals with international status are not indexed by the international abstracts services. Local scholarly journals without international status face the same fate as they are not systematically indexed locally, and this lessens the impact factor and recognition. Eventually researchers shun away from publishing in these journals and the vicious circle continues.

Journals are a recognized channel to report research activities. New knowledge is usually created in universities and other institutions by employees conducting research and producing results to the community as a whole (Feather, 2003, p.206). Thus, their institutions and funding bodies expected to see the research results in journals, particularly journals with international standing.

Scholarly journals and other peer-reviewed materials have long been important communication channels for scientists. Tenopir and King (2000, p. 25) noted that most of these readings are for research purposes (75%), with fewer for teaching (41%). They also found that “university scientists each spend approximately 180 hours a year reading
scholarly articles, while non-academic scientists spend nearly 100 hours obtaining (12 hours) and reading (88 hours) journal articles” (p. 26).

The situation is similar in Malaysia where “Journal articles were ranked the highest by the respondents in keeping them up-to-date about current development in their areas of specialization”, and “review articles with a mean score of 4.04 followed” (Majid, Anwar, and Eisenschitz, 2000, p. 159). With regard to efficiency in information seeking, Majid, Anwar, and Eisenschitz (2000, p. 161), noted “43% of the respondents reported that they were unable to keep in touch with scientific literature produced in their specific areas of specialization. A more worrying finding was that a majority of these scientists felt that this inability was not due to their lack of knowledge about information sources and services, administrative work or research engagements, but was due to deficient library collections and facilities.”

Without active writing among scholars, publishing activities will not flourish. Journal publishers are facing difficulties in finding good written articles. Editors and publishers may compromise with low quality of writing and offer a lot of help to those who try to write. Writing for scholarly journals is undeniably hard, with their reviewing and editing processes. Many articles could not get through this refinement process, and for many young academics, they may choose another way to disseminate their results, such as through conference proceedings.

All the online publishing being practiced in Malaysia is in the parallel publishing format. Several organizations digitized their printed journals to publish an online version. At the moment the organizations dare not go into online-only publishing because the need to have the print version is still high. However, in the future, things may change as Lenaeres (1999) remarks:

“"The growth in parallel publishing, which may be defined as the publication of an electronic version of a traditionally print journal, has greatly increased the number of scholarly journals available electronically and may possibly have affected the attitudes of acceptance toward journals in this format”.
The study by Anderson et al. (2001) found that “authors currently perceive online-only publication as second-tier publishing, subordinate to print” in which “authors still have an overall preference for print publication”.

Anderson (2001) stressed that “if authors perceive online-only publication as solidly second-tier, a publisher’s ability to achieve faster, cheaper publication of important materials will be restrained”. In general, all the presses interviewed still preferred and continuously publish print publications. Many of them were not even familiar with issues associated with online-only journal and open access. An interviewee remarked, “books are not like the typewriter, but books are like the pen. No matter what technology would come, it's still preferred because it's cheaper, more portable and closer to heart. Electronic publications will not replace but complement the books” (Interview with MPOB).

From the interviews, none of the scholarly presses in Malaysia have gone into online-only journals. One press has parallel or hybrid publication, a few have back issues online and a number of presses put the abstracts of print journals online. Although all of these presses said that within the organizations they have no problems with technological issues, it is a matter of concern in the presses. Some of them may have the hardware but no skills, while others are waiting for a directive from the management. The only online-only journals known are the Journal of Problem Based Learning published by the Faculty of Computer Science and Information Technology, University of Malaya and the Internet Journal of e-Language Learning and Teaching (iJeLLT) published by one special interest group based in the Faculty of Education, National University of Malaysia.

From the respondents’ perspective, it was noted that they do not often publish in online journals. The results have shown that the majority of the respondents had never experienced publishing in any of the four types of online publications listed in the questionnaire. Only 9.6% often (often/very often) deposited in a preprint archive, and 9.3% published in online international journals that have parallel versions. A very small percentage (5.5%) of respondents often publishes in online-only journals. The study showed that publishing in online journals is not prevalent among the respondents.
However, the majority of the respondents (76.7%) take the view that preprint archives are important in their subject area, while only 10.2% had actually deposited in a preprint archive. This showed that from the user's point of view, preprint archives are important sources of information in their subject area. Those who said that they had deposited in a preprint archive, however, had actually used publishers and aggregators. This showed that those who claimed that they had deposited in a preprint archive did not understand what it is.

This scenario is not surprising. The majority of the people interviewed who work in the presses were also not aware about preprint archives and the open access concept. In general, many researchers in Malaysia do not have much knowledge about publishing matters, especially online publishing, as it is still new and unstable. Normally researchers will approach the presses when they have something to publish. For those who already had experience of publishing in a particular journal, the tendency is to publish in the same publication. So they would not be concerned to know about other ways or other publications. This is particularly true for researchers who seldom publish. They need not know about issues in the publishing world.

One of the advantages of the online journal that the print medium cannot possibly have is a publicly accessible archive of electronic print (e-print) which includes preprints and postprints. In this sense, Harnad is encouraging open access for all articles full text either reviewed or non-reviewed. Harnad (http://www.ecs.soton.ac.uk/~harnad/Temp/eprint.htm) defined preprint, as an earlier version of the paper, including the unrefereed, not yet revised or accepted draft that was originally submitted to the journal for peer review. A postprint is all postpublication drafts, including the official, accepted, and published draft itself.
In this study, it was found that respondents had been educated at various higher institutions, locally and internationally. Although the number of respondents who trained at Western universities and at local universities do not differ greatly (177 versus 191), their attitude towards writing and publishing in online journals is significantly different. Respondents who were trained in the Western universities tend to write more and had a positive attitude towards publishing in online journals. One obvious reason is that getting trained at Western universities would expose them to the English language. This would help them to understand the literature better and write better for scholarly publication.

Although the majority of the respondents were not publishing in online publications, they are aware of the importance and popularity of online publications. As a user, online publications provide a very attractive alternative for accessing scholarly publications. The demand for online publication may force publishers to provide more information in online form. Based on the current global trend, the respondents have a positive attitude towards online journals' future (58.3%). The respondents perceived that in five years time online journal would have superseded the print journal. According to Ware (2005), although the number of online-only journals is small (between 90 and 900), electronic access has grown dramatically. Thus there is a prospect that the demand for print will dwindle.

Apart from technological issues, human factors are important in any technology adoption process. When dealing with human factors one cannot avoid discussing the culture that is embedded in the human individuals. Many previous pieces of research have shown the importance of culture in influencing how people perceived, and acted, towards things in life (Pearson & Chatterjee, 2003; Ndubasi, 2004; Kanousi, 2005; Pagell, Katz & Sheu, 2005). Although there are numerous cultures in the world, there are basically two main cultures that will be discussed in this study—Western and Non-western.

Non-western culture in this study is associated with Asian, developing countries, the non-industrialized and non-English speaking world. Although Malaysia has achieved much physical progress compared to other developing countries, there are still a lot of aspects
to be improved, particularly in the psychosocial aspect, in order to attain a developed
nation status.

Malaysian culture is complex, as the country is post-colonial, comprises three dominant
ethnic groups, and has religious diversity. Malays, the most dominant ethnic group, are
usually Muslims, while Chinese, the second large ethnic group, are Confucians, and the
Indian ethnic group embraces Hinduism. There are also Christians and pagans. The fine
lines existing are obscured by intermarriage, religious conversion, and the modernization
process. Generally, the Malaysian culture is described as valuing politeness, harmonious
relationships, and respect for elders and religions.

Based on Hofstede’s (1991) cultural dimension theory, Malaysia is described as having
large power distance (PDI-104), high collectivism (IDV-26), average masculine and
feminine value (MAS 50), and low uncertainty avoidance (UAI-36). The fifth dimension
is the long-term orientation versus short-term orientation. In large power distance
countries, the dependence of subordinates on superiors is huge. The emotional distance
between subordinates and superiors is large, and subordinates are most unlikely to
approach or contradict the bosses directly. As discussed above, although technology and
skills are available within the organizations, starting online journals must come from the
superiors, to ensure the subordinates get all the back-up they need in the activities.

In high collectivism countries, the society is closely united in groups as compared to
countries with high individualism, where society sees the importance of being different as
an individual. Malaysian society, as a high collectivism society, seeks to conform to the
group norms. Malaysians will not try to deviate from the group norms, as they will be
branded as eccentrics if they do. In the local publishing trend, this is reflected in the
reluctance to adopt online journal publishing by local researchers. Online journal
publishing is relatively new to the Malaysian academic community, resulting in the
activity being viewed with suspicion by the researchers. An individual researcher would
consult his or her contemporaries before deciding to publish, and if it appears that the
trend among the researchers in that particular organization is not to publish online, there is a very high probability that the individual researcher would not publish online.

Culturally, the ‘shame’ concept is clear in the Malay culture. People are ashamed to act differently from others or to deviate from societal norms, which are usually based on Islamic values, as Malays are generally associated with Islam. People are also ashamed to admit that they lack certain things if the trend is otherwise. Should there be something that is considered shameful; people will hide it from the public. This concept is related to ‘pride’ or ‘dignity’ concept, and Malays would not tolerate shameful activities. Malays takes great pride in family matters and religion, but not worldly possessions. For example, Malays respect visitors and make their stay comfortable although their daily life is otherwise. Fulfilling social obligations is part of Malay tradition, where concepts such as ‘gotong-royong’, or working together without pay, have been practiced for generations. However, these values are eroding due to modern life.

Uncertainty avoidance refers to “the extent to which the members of a culture feel threatened by uncertain or unknown situations” (Hofstede, 1991, p. 113). It relates to how society deals with uncertain or unpredictable events. As Malaysia has low uncertainty avoidance, people do not worry much about new things or new inventions. They do not take steps to face the challenge; rather they would wait longer to adopt new technology. This appears to be the case in local online journal publishing. Local researchers may view online journal publishing as more of a complex futuristic technological advancement rather than an innovation that would further enhance their academic work. As such, their reluctance showed that they are unwilling to try out online journal publishing on the basis on uncertainty and would rather adopt the wait-and-see approach.

The long term and short-term orientation factor was discovered at a later stage, when Bond studied people’s values by using a questionnaire composed by Chinese people, and the dimension was originally labeled as “Confucian dynamism” (Hofstede, 1991, p. 14). The long-term orientation deals with future value and rewards, particularly perseverance and thrift, while short-term orientation fosters the values related to the past and present,
such as respect for tradition, preservation of ‘face’, and fulfilling social obligation. China, where the majority of the population is Chinese, ranks highest for long-term orientation (LTO) with an LTO index of 118. Malaysia was not included in the study to have the LTO index, but Singapore, the nearest state to Malaysia had LTO index of 48. Again the majority of Singaporeans are of the Chinese ethnic group. On the other hand, in the Philippines, although the majority of the population is Christian, they are considered to be in the Malay ethnic group. The Philippines has an LTO index of 19. By observation, Malaysians, especially Malays, embrace short-term orientation value, where respect for tradition, preservation of ‘face’, and fulfilling social obligation are extremely important. In the questionnaire survey, it has been found that there is a difference among ethnicities with regard to adoption rate. The Chinese ethnic are more willing to adopt online journal publishing compared to the Malays. One possible explanation for this is based on Hofstede’s long-term orientation theory, in that the Chinese typically have a higher long-term orientation index compared to other ethnicities.

In contrast, to say that Malay are not publishing at all is a bit misleading, as the survey shows that many of the respondents prefer to publish in conferences or in local journals. These two types of publications are not cited by the international indexing agencies, which limits their visibility. There are cases where researchers just prepare reports for their research sponsors and do not publish their research results anywhere, however.

For example, in traditional Malay society, knowledge is shared and passed down orally. Knowledge is not for sale or for showing off. People who have more knowledge should behave more wisely and humbly. People should not talk much to show that they are cleverer than other people. A proverb to illustrate the Malay values about knowledge roughly translates as ‘follow the attributes of the paddy, as it ripens the plant grows nearer to the ground’ which literally means the more you have knowledge the humbler you are. Seeking knowledge is a lifelong activity, as reflected in the proverb which literally translated says ‘learning begins from the cradle to the grave’, and disseminating knowledge is a must, as a Prophetic Tradition says: ‘tell what you know even though only one sentence’. People should not hide the knowledge that they know. However, people
should not hope for an equal return or get monetary reward for disseminating knowledge. Malays believe that if you do good deeds to people you will get more prosperity from unexpected sources.

In Malay society, what you know and practice is more important than what you know but do not practice. Documentation of knowledge is not a normal practice in traditional Malay society. Very few people have written their knowledge down for future reference. These are usually religious teachers. However, the documents are not mass produced, they are handwritten and they do not bear an author’s name. Many of the traditional Malay writings concern religion and folklore. These writings have no author’s name to claim the copyright. Some put pseudonyms so that their real name could not be traced. Publishing as we know today is a new activity brought by the West during colonization.

As mentioned above, Malays do not put worldly possessions as the most important thing. This might looks contradictory when Malaysian academics in the survey, the majority of whom are Malays, inclined towards getting rewards rather than publishing for the sake of knowledge. Although Malaysia is considered upper-middle income by the World Bank and positioned at the upper rank amongst developing countries, one must see the reality of life in Malaysia, especially the economic aspect, where the majority of people have to struggle to make ends meet. As Malays are the biggest workforce in the public sector, they do not earn a flexible income, compared to the Chinese ethnic group, who are the majority in the commercial and private sectors.

The majority of Malaysians, especially the Malay ethnic group, are still not fulfilling the basic needs, which Maslow (http://en.wikipedia.org/wiki/Maslow’s_hierarchy_of_needs) in his hierarchy of needs theory calls deficiency needs, which include physiological needs, safety needs, love/belonging needs, and self-esteem needs. Next are ‘being’ needs, which include self-actualization and self-transcendence. It might not be incorrect to assume that Malaysians, especially the Malays, are still at the stage two or three of Maslow’s hierarchy of needs, safety and belonging needs. The stage four, ‘esteem needs’, may only be experienced by a few. Culture and attitude definitely influences how
Malaysians perceive everything in life, including adopting any new invention. However, with a lot of support from government and its change agents, Malaysians are not that difficult to persuade.

Clearly, technological advancement is considered an important aspect by the government in order to modernize the country. As such various policies on IT adoption and ICT development have been implemented on a top-down basis. Researchers, especially in public institutions are also encouraged by the government to participate in national-level R & D activities, with various incentives on offer. It is assumed that through all the integrative effort, both the infrastructure as well as public awareness campaign in IT, more local researches will be conducted, completed and disseminated/published. On the subject of research dissemination and publication particularly online publishing, this apparently is not the case. The findings point to a multitude of overlapping factors that both encouraged and (to a certain extent) discouraged the positive attitude towards online journal publishing by local researchers.

The next chapter will link the various factors on the adoption of positive attitude among local researchers in online journal publishing for recommendation on future policy strategies.
Chapter 8

Recommendations and Conclusion

Introduction

It is now appropriate to revisit the objectives of the study. The study was conducted in order;

1. To identify publishing attitudes among Malaysian researchers
2. To understand the adoption of online journal in local public higher learning and research institutions
3. Finally, to identify and explore factors promoting or hindering the activity of online journal publishing in Malaysia

As Malaysia chose ICT leapfrogging to accelerate her development, in order to achieve developed country status, she has faced many obstacles and challenges. Davison et al., (2000) noted, “technology leapfrogging can exist, but leapfrogging alone does not guarantee, or even encourage prosperity”. Local online journal publishing is definitely challenged by how Malaysia deals with the imported technology, as an alternative but much-talked about channel of distributing and disseminating information and knowledge. Today information is transmitted and moves throughout the world freely and quickly. People need access to more information for survival or winning better bargains. Information is crucial in any nation’s development.
From the survey, it seems that the more respondents publish in the print form and in the English language, the more positive is their attitude towards adopting online publishing. This suggests that online publishing is just an alternative way to publish their research results. The most important thing is writing the articles. If people have no articles to publish anywhere, their attitude towards any channel could not be positive. People will use online if the channel is within their reach. This is some of the encouraging factor for the adoption of online journal publishing.

Online publishing is an alternative channel for distributing information, which in this case is research result. The study has identified that Malaysians are not rejecting online publishing, but rather weighing the consequences as certain issues are still not settled. These include copyright issues and perceived low quality of online journals. Although it seems that Malaysian researchers are not too keen in adopting online journals as channels to publish their research results, they are aware of and had used online publications in their work.

In general, universities and research institutes in Malaysia have the necessary technology and skills for online publishing. Although the feedback from the survey reveals that some of them are lacking the technology, hardware and skilled workforce, they admit that they have the facilities within the organization, and they could have them if they requested. It is however still difficult to change mind-set and attitude. In general a lot of ‘push’ factor has to be done to change people’s perception towards ICT. Although training in ICT has gone for several years at all levels in public and private organizations, this seems to be ongoing process. Government staff still requires specific training before participating in any ICT-related activities, including starting online publishing.

In general, local researchers were found to actively engage in research and disseminate the findings through various channels, including online journals. However, even with the readily-available technology and facility, the numbers of research articles from local researchers that appear in international online journals are dismal, to say the least. To aggravate the matter further, local online journal publishing scene is extremely slow to
flourish resulting in uneven development. A case in point is when a local public institution initiated an online journal project but was later forced to publish a parallel print version of the journal due to the demand of contributors.

The findings also mentioned a lack of will or support on the part of the relevant department, such as the organizations' presses. The management ('the bosses') is slow to address the necessity for online publication or journals at their presses or organizations. Thus researchers have no or little inclination to publish online, because they have to look for an outlet for themselves.

To the majority of the presses in the survey, online journals are not their priority, as more acute problems, such as getting good articles on time, are still weighing them down. To ensure that the existing print journals survive and continue takes a lot of effort and planning. Some presses give monetary rewards, some provide language editing services, while others provide regular training in writing scholarly articles. Although publishing articles in journals is considered in promotion exercises, not many people pay serious attention to it, because writing articles does not promise as good a return as part-time teaching or consultancy work.

Furthermore, publishing in print journals might take a longer time compared to writing for conferences or preparing a research report. As long as the research results are documented, they could be referred to or disseminated, though on a smaller scale. To publish online needs knowledge on where to send to, language competency, especially in English, and knowledge of the subject area (as it is open to criticism) as well as computer skills. On top of that, people perceived that online published material is easy to plagiarize. These factors eventually discouraged people from publishing online.
The impact of ICT policy on online publishing

In terms of technology hardware, Malaysia is not backward compared with developed countries. However, since Malaysia is not the inventor of the technology, the newest versions of certain technology might not available. But not for long. The Malaysian Government is very supportive, and spends a lot of money to obtain the technology. Training to use the technology has been given to the population, especially government servants, as the government is bringing the technology into the country. Many Malaysians have knowledge and skills in ICT.

Publishing scholarly work in Malaysia is considered a new activity and does not bring much profit to the publisher. Malaysian publishers, including university and research institute presses, are concentrating on publishing print journals. They attempt to go online by producing online versions of print journals. Small groups of individuals are trying to initiate online-only journals on a voluntary basis, but are faced with a number of constraints, such as recognition from organizations, funds to maintain the services, manpower and the acquisition of articles.

From the survey, it is revealed that organizations do not really want to go online, especially online-only. Plans to go online are not really thought through seriously. Among the reasons is the small number of potential readers, due to unconventional subject areas, such as palm oil or indigenous literature. Another reason is the language; the audience for Malay language journals is small. Publishing in English poses different problems and online journal in English will not help increase the impact factor.

Using online publishing, articles could be accessed by a wider audience and published faster. However, from the experiences of authors, the process of reviewing takes some time. Thus people might think that online articles are not properly reviewed, as they are published faster, and thus they are perceived having low quality. This is why local organizations do not recognize online-only publications. This situation would further discourage authors from publishing in online journals.
In the Malaysian context, support from organizations and government is crucial to ensure the success of any new venture, including online publishing. Although in technology leapfrogging, the diffusion of technology hardware is successful; to use ICT effectively needs more than just installation and applications. It needs experiences that accumulate over time, and modification to its new environment (Davison et al., 2000, p.3). The intrinsic part, such as attitudes and values of the people, is difficult to change and sometimes clashes with the idea of adopting the technology and monitoring every step of the way need planning and coordination of the change agents and it will take time.

From the survey it can be seen that respondents, either researchers or staff from the presses, do not fully understand several concepts and activities connected to online publishing, such as open access, preprint archives and online-only journals. The lack of knowledge in this matter definitely hinders the adoption of online publishing.

Malaysian authors are not very fussy about who has the distribution rights to their work but they still want some rights, either limited or full. From the survey, it is seen that they detest plagiarism, and by publishing in online journals the possibility of being plagiarized is higher than in the printed journals, as they perceive it.

**Recommendations**

As mentioned earlier in Malaysia, support from the government is crucial in ensuring the success of any project, including online journal publishing. This condition support Hofstede’s theory on cultural dimension, in that organizational culture dictates the action of the member. The recommendations proposed are more towards enhancing the role of the government as policy makers and financier for local research.

Based on the findings of the research, in order to encourage more involvement of local researchers in online journal publishing, these strategies are proposed:
Strategy I

Organizations should start their own open access online journal to develop indigenous publishing. This will encourage people to access our research results easily as well as expose our own researchers to publish online.

While efforts must be made to continue producing good materials for publications in recognized online journals, new and existing researchers should be groomed to write and publish their research results in organizational publications.

Strategy II

Organizations should recognize online journal published locally as long as they go through the traditional quality controlled process of reviewing, including the legal and ethical considerations.

The administration of public institutions must move with the times. They must draw up a policy that includes online journal publications as part of the academic exercise criteria for tenureship.

Strategy III

Concerted efforts between departments within the organizations will boost online publishing activities. Different organizations working together would help increase awareness of online journal publishing and cut down the redundancies of the resources.
Not all public institutions and organizations have the expertise and technology to publish online. As such, collaborations among local public organizations would help local online journal publishing to develop.

**Strategy IV**

*The government must make it mandatory for researchers that receive public funding to publish their results in online journals.*

In order to further encourage research results publications in online journals, the government must draw up a policy that requires all recipients of public research funding to publish their research results in online journal.

**Strategy V**

*Organizations should consider setting up an institutional repository to publish all the research results within the organization*

To inculcate the tradition of writing research findings in online journals among local researchers, public organizations could also set up an institutional repository that would publish research results conducted by the organizational staff. This repository function as a central database, in which unpublished research results could first be stored and it is accessible for the academic community to search for the data on research. Feedbacks could also be obtained from the academic community and this would further refine the raw data to be turned into a research paper.
Future Direction of Online Journals Publishing in Malaysia

The public higher education organizations and research institutions in Malaysia should change their mindset and become more open if they want to realize the dream of having internationally-recognized online journals. They should pool all their resources and make it easier to develop and maintain online-only journals. While technical issues are important in influencing the attitude to adopt the online publishing, in the case of Malaysia it has no relationship in shaping the local researchers positive attitude towards publishing in online journal.

It is fair to conclude that attitude towards online publishing is not necessarily as simple as we might earlier perceived and certainly not overcome by addressing technical issues such as physical access and skills. It must be realized that societal acceptance towards online journal publishing differ greatly from one society to the other. Some may be capable of publishing in high journals others may not. As far as publication activities in Malaysia people always has outlet for their writing.

Publishing in online publication is only one way to disseminate research results. Besides several advantages, there are also disadvantages, which have been highlighted by the respondents as well as in the interviews with the press. On part of the organizations, various measures have been recommended to further encourage local researchers to write for online journals. To this end, the role of the government is also crucial. Existing policies on academic publication must be reviewed to reflect the changing time.

On a more personal note, researchers must equip themselves with the appropriate skills for writing and publishing academic papers. Writing scholarly work demanded high skills in writing as well as in doing research. In addition to skills, researchers must have a strong commitment in conducting a good research and the ability to convey the research findings eloquently, both orally and in written form.
As such, the factors that influenced positive attitude of local researchers towards online journals could not be assigned to either organizational structure only or the personal factors (such as language competency, writing skills and so on). Rather, factors, both internal (the attitude) and external (technology, organizational support), are so closely connected that it is sometimes difficult to separate the two. This is the dilemma of researchers in Malaysia, although the situation is rapidly changing with globalization. More local researchers are being exposed to international research due to organizational and international collaborative effort. The Internet also plays an important part. Local researchers conducting web search are more exposed to the different approaches to do research and to report research findings. With the support from the government, local researchers would do well to publish their research in online journals in the near future.
Bibliography

*Information Development* 18 (4) 227-230.


ALPSP. 1999. What Authors Want The ALPSP Research Study on the Motivations and Concerns of Contributions to Learned Journals. Worthing. ALPSP


Eighth Malaysia Plan. 2001. Economic Planning Unit, Prime Minister's Department, Malaysia


Gilmore, Elizabeth 1998 Impact of Training on the Information Technology Attitude of University Faculty (Online), University of North Texas, Denton.


232


McDonald, Ross. 2002. What are the Factors That Will Shape Peer Review in E-Journals Library Hi Tech News (Online) 19 (6).


Morse, David H, and Clintworth, William A. 2000 Comparing Patterns of Print and Electronic Journal Use in an Academic Health Science Library. Issues in Science and Technology Librarianship Fall.


Ninth Malaysia Plan. 2006. Economic Planning Unit, Prime Minister's Department, Malaysia


235


Rao, Madanmohan et al. 1999. Struggling with the Digital Divide: Internet Infrastructure, Policies and Regulations (Online) Paper read at South Asia Internet Workshop, at Dhaka, Bangladesh.


Selwyn, Neil. 1997. Teaching Information Technology to the "Computer SYY": a Theoretical Perspective on a Practical Problem. *Journal of Vocational Education and Training* 49 (3) 395-408

Seventh Malaysia Plan. 1996. Economic Planning Unit, Prime Minister's Department


Sun, H. and Zhang, P. 2006. The Role of Moderating Factors in User Technology Acceptance. International Journal Human-Computer Studies 64: 53-78


241
Appendix 1

Factors Influencing Academics and Researchers towards Publishing in Online Journal

All responses to this survey are kept confidential.

This survey seeks your opinion about publishing in online-only journals. Your responses will provide important information on the attitude of academics and researchers in not-for-profit organisations in Malaysia.

PART 1: Background

Direction: Please mark your answer in the respective box.

1. Age
   - □ less than 26 years
   - □ 26-30
   - □ 31-35
   - □ 36-40
   - □ 41-45
   - □ 46-50
   - □ 51-55
   - □ over 56

2. Sex
   - □ Male
   - □ Female

3. Please indicate your ethnic background
   - □ Malay
   - □ Chinese
   - □ Indian
   - □ Others (please specify)

4. Where do you currently work?
   - □ Research institution
   - □ University

5. Please indicate the academic qualifications you currently hold and institutions of study.
   - □ Diploma Institution:
   - □ Bachelor Institution:
   - □ Master Institution:
   - □ PhD Institution:
6. Please indicate the job designation you currently hold (check all that apply).
   - Director
   - Professor
   - Associate professor
   - Dean
   - Head of department
   - Lecturer
   - Administrator
   - Research Officer
   Other (please specify): ________________

7. Duration in the current job
   - 0-1 year
   - 2-5 years
   - 6-9 years
   - 10-13 years
   - 13-16 years
   - 17+ years

8. Which of the following fields does your expertise lie?
   - Arts
   - Biology
   - Language
   - Chemistry
   - Literature
   - Physics
   - Religious Study
   - Medical
   - Communication
   - Mathematics
   - History
   - Computer sciences
   - Sociology
   - Engineering
   - Social Science
   - Veterinary sciences
   - Industrial Relation
   - Business and management
   - Geographical sciences
   - Economics
   Other (please specify): ________________

9. At home:
   Do you have access to a computer? ☐ Yes ☐ No
   Do you have access to the World Wide Web (WWW)? ☐ Yes ☐ No

10. At office:
    Do you have access to a computer? ☐ Yes ☐ No
    Do you have access to the World Wide Web (WWW)? ☐ Yes ☐ No

Direction: Question 11-13 please tick (X) your answer according to the given ranking.

11. How often do you engage in the following computer activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Daily</th>
<th>once or twice a week</th>
<th>once or twice a month</th>
<th>once or twice a year</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word processing packages (e.g. Word)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Email</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>World Wide Web</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Creating HTML for document design</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Creating PDF file</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
12. How often do you use the following electronic resources for research purposes?

<table>
<thead>
<tr>
<th>Resource</th>
<th>Daily</th>
<th>Once or twice a week</th>
<th>Once or twice a month</th>
<th>Once or twice a year</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Online scholarly journals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Online archival material (including preprint/reprint)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Online government resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Online conference proceedings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Online newspapers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PART 2: Journal Publishing

*Direction: Please mark your answer according to the given rating*

13. How strongly do you agree or disagree of the following reasons for publishing your research results?

<table>
<thead>
<tr>
<th>Reason</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Career advancement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Future funding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Personal prestige</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Sharing knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Required by sponsors/funders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Other (please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. Where do you publish your research results?

<table>
<thead>
<tr>
<th>Publication Type</th>
<th>Very often</th>
<th>Often</th>
<th>Occasionally</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Conference proceedings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Local print journal with</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>international status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Local print journal (other)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Foreign international print journal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Print monograph/book</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Electronic/online local journal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Electronic/online international journal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Reprint archive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Other (please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Direction: Question 15 to 16 please write your answer in the given space*

10. For the last five years (1998-2003) how many articles have you written that have

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Single author</td>
<td></td>
</tr>
<tr>
<td>b. Two authors</td>
<td></td>
</tr>
</tbody>
</table>
c. Three authors __________________________________________________________

d. More than three ________________________________________________________

16. For the last five years (1998-2003) how many articles have you written in

a. Malay ________________________________________________________________

b. English ______________________________________________________________

c. Arabic ______________________________________________________________

d. Chinese ______________________________________________________________

e. Tamil _________________________________________________________________

f. Other (please specify): ________________________________________________

Direction: Question 17-18 please tick (X) your answer according to the given rating

17. When considering where to publish how important are the following factors?

<table>
<thead>
<tr>
<th></th>
<th>Very important</th>
<th>Important</th>
<th>Not sure</th>
<th>Not very important</th>
<th>Not at all important</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. non-profit publisher</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. commercial publisher</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Nationality of the journal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Perceived reputation of the journal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Impact factor of the journal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Publication speed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Circulation of the journal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Price of the journal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Very important</th>
<th>Important</th>
<th>Not sure</th>
<th>Not very important</th>
<th>Not at all important</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Inclusion of journal in abstracting and indexing services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. Ability of author to retain copyright</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k. Articles are published as soon as they are finalised.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l. Articles are published as soon as they are accepted, even if not finalised</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m. Back volumes are available free of charges</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

245
18. To what extent do you agree or disagree with the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I prefer to submit articles to journals that maintain formal peer review</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Peer review should be speeded up through the use of electronic communications</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. The identities of the reviewer for online journals should be made public</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. The identities of the reviewer for print journals should be made public</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Public commentary (open review) for online journal should replace traditional peer review</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. The traditional peer review is still relevant for online journal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Public commentary on electronic preprints should run alongside traditional peer review</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Public post-publication commentary should supplement traditional peer review</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

n. Wide audience
o. Linking from citation to cited articles
p. Inclusion of additional data
q. Inclusion of colour images
r. Inclusion of video or sound
s. Inclusion of manipulate content (software, simulations, online experiments etc)
t. Long-term preservation of back volume is guaranteed
u. Availability of print version
v. Availability of an online version
w. Availability of both print and an online version
x. Language of the journal
19. How do you think copyright in journal should be handled? Please select any that apply.

a. Copyright transferred to publisher; personal redistribution rights retained by author  
   □

b. Copyright retained by author, full publishing rights granted to publisher  
   □

c. Copyright retained by author; limited publishing rights granted to publisher  
   □

d. Copyright retained by author's employer, full publishing rights granted to publisher  
   □

e. Copyright retained by author's employer; limited publishing rights granted to publisher  
   □

20. Are electronic preprint archives (repositories) important in your subject area?  
   □ Yes  □ No

21. Do you deposit your electronic preprints (articles) in an archive?  
   □ Yes  □ No

22. If yes, which electronic preprint archives do you use? ______________________

PART 3: Support

Direction: Question 23-25 please mark your answer according to the given rating

23. To your opinion how important are the following factors in persuading you to publish in online journals?

<table>
<thead>
<tr>
<th>Factor</th>
<th>Very Important</th>
<th>Important</th>
<th>Not Sure</th>
<th>Not Very Important</th>
<th>Not at all Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Allocation of specific space</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Policy on online publication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Recognition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Peer recommendation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Subscription by library</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Availability of funding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Back up from institution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Direction from management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

24. To your opinion which factors hinder publishing online

<table>
<thead>
<tr>
<th>Factor</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Perceived low quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. No technological know-how</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. No suitable hard-ware available</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. No support from institution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. No funding to set up and maintain online publishing activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. No recognition from institution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. No reason why should do it</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Copyright</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
25. I think online-only journal superseded print journal in 5 years time

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither agree Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you would like to comment further on electronic publishing, please do so here

---

Thank you very much for your help!
Appendix 2

The translations of semi-structured interviews

Interview 1: Pn. Kamariah
(Editor of University Putra Malaysia Press)

(SIDE A)

Pn. Jamayah: I am doing a research on attitude of Malaysian researchers towards publishing in online journal. So I would like to ask few questions from you. Do you publish journals?
Pn. Kamariah, We have three journals; Journal of Science and Technology, Journal of Social Sciences and Humanity, and Journal of Agriculture Science.

Pn. J: That's print journals right?
Pn. K: Yes, they are printed journals

Pn J: Do you have online journal or a parallel publishing, for these three journals?
Pn. K: At the moment, no we don’t have.

Pn. J: How is the respond from the authors, within the Institution to publish in your journal?
Pn. K: Respond is quite good, we received many papers, and articles in fact some are from international authors.

Pn. J: International authors?
Pn. K: International students who studied here

Pn. J: What about other organization?
Pn. K: Yes, we have articles from local universities, like UM, UKM and so on, and from SIRIM too

Pn. J: Personally, what do you think publishing in online journal?
Pn. K: It’s very good, online journal is good in term of accessibility and it’s faster.

Pn. J: Any other reason, do you think is it good?
Pn. K: I still think that they are faster and easy to access.

Pn. J: What do you think about its value?
Pn. K: Online journal is easy to access and distributed compared to the print journal.

Pn. J: Isn’t it good?

Pn. J: Then, do you plan to publish online journal?
Pn. K: At the moment we haven’t discussed it yet, although many show their interest We have seminar on this matter and many are exited about it, but so far no development. As far as I know no university presses has online journal. What they have is online version of the printed journal.

Pn. J: Do you mean authors don’t like to publish in online journal?

249
Pn. K: So far I don’t see. But it is maybe because the press has no online journal. Maybe if we have online journal they prefer to publish using online journal. I really don’t know because I have never mentioned to publish in this medium.

Pn. J: Is anybody asked you to have one?
Pn. K: So far no one asked me about online journal. Maybe there are people who are asking but nobody ask me directly.

Pn. J: In your opinion how is your institution view about publishing online journal?
Pn. K: The University recognized the print journal. If this printed journal is digitized into online journal, it is the same. That University will recognize.

Pn. J: Will the University recognized and support the articles published in online journal?
Pn. K: As I said, the online version of the printed journal that University has recognized will be recognized, regardless of the medium and will be counted for job promotion. So I think the University support online journal.

Pn. J: Do you think the institution have the facilities to start online only journal?
Pn. K: I think if the University Press proposed to have online journal the University will agree. But as you know, nobody is really into that yet.

Pn. J: Is the press proposed to have it?

Pn. J: Why?
Pn. K: We have plans to publish online journal but we have no staffs and skills to do it.

Pn. J: Then how are you going to do it?
Pn. K: Actually if we really want to have it we can work with the Computer Department. But there is a lot of works and things to settle between the two departments. The boss should initiate or direct us. Nobody will listen to me alone.

Pn. J: Is that means that there is no strong proposal from the University Press?
Pn. K: Something like that, yes.

Pn. J: In your opinion, what are the reason that online journal is not widely adopted by the authors?
Pn. K: I’m not so sure with the authors.

Pn. J: Apart from journals published by the university press is there journals published by the faculties. Maybe they published online journals?
Pn. K: I don’t think so. Faculties don’t publish journals, but they may have proceedings or something like that.

Pn. J: Do you think the academicians here publish in another journals?
Pn. K: Yes they do publish in another journals like in UKM’s journals, but ours are better.

Pn. J: Better in what sense?
Pn. K: I have attended a seminar in UKM and the author himself complained that the process for UKM’s journal is very bad compared to our press. Our journals are much better for examples, if the author asked about the status of their articles and provide the reference number, we can easily verify the status.

Pn. J: It’s more systematic. You have your way on how to handle articles. How long do you take to publish?
Pn. K: That is up to the reviewer, the problem is the reviewing process take a long time. Reviewer takes along time to read and sent the comments to us. So we have always sent reminders.

Pn. J: How long do you give time to for reviewer?
Pn. K: Three months and we need about six months to publish because we have two issues in a year.

Pn. J: In your opinion what are the factors to encourage authors to write in online journal?
Pn. K: I have no idea.

Pn. J: What about technology?
Pn. K: Maybe the younger generations are more likely interested in technology.

Pn. J: Do you think the technology or the attitude of the author?
Pn. K: I think is the attitude. If they are interested in the new technology they will do it to follow the trend.

Pn. J: So you think it is the attitude?
Pn. K: The technology is there. It is up to you to use it. It is the attitude whether they want or not. Maybe they don't feel it is a necessity to publish in online journal.

Pn. J: Can you elaborate?
Pn. K: I think the lack of skills. The authors don't want to try the new technology. It is easier with the old way, because to publish in online journal, they have to learn the new system. This is particularly true with the old authors.

Pn. J: Do you think the younger author more positive towards online publishing?
Pn. K: There are, I think more positive and more exposed to the new technology.

Pn. J: You said it is the attitude because you think the technology to publish online journal is available in UPM?
Pn. K: UPM press has no online journal because we haven't started it because we don't proposed. For the time being there is no online publishing facilities in UPM Press. But if people are strongly wants it we can work with other departments to publish online journal.

Pn. J: You mean that UPM can publish its online journal?
Pn. K: Yes, can. But right now in UPM Press we don't have plan because we don't have people who can handle it. So it will not be functioning. So if the researchers want it they must request for it.

Pn. J: So the problem is the person that can handle the project?
Pn. K: Yes. If author really wants and there is people in UPM press can handle the project, I am sure UPM will support the idea and the activity.

Pn. J: Based on your experience, do you think online journal will be accepted by the Malaysian authors in the future?
Pn. K: Yes

Pn. J: Do you have any idea what model of online journal that you want to have?
Pn. K: No

Pn. J: Before we ends do you have any comment or remark on online journal publishing?
Pn. K: Since Malaysia has the ICT we must follow the global development. Online journal is one of the ways that we must do. UPM is one of the tops universities in Malaysia. Online journal should be published here.
Pn. J: Who do you think should do the initiative?
Pn. K: UPM Press with the cooperation from university management and IT Department. UPM Press must have a strong recommendation and suggestion about having the online journal. This suggestion can be brought to the university management especially the University Press Committee.

Pn. J: And so far no suggestion had been brought?
Pn. K: No

Pn. J: Thank you
Interview 2: Pn. Rohani Mahmud
(She is the head of Publishing Unit for Malaysian Agricultural Research and Development Institute – MARDI)

Pn. Jamayah: I am doing a research on online journal publishing in Malaysia. So I would like to have some information about your press. How many titles of journal published by MARDI?

Pn. Rohani: One only.

Pn. J: Is it an international journal?
Pn. R: Yes

Pn. J: And you publish in English?
Pn. R: Yes, for the past few years, we published bilingually, English and Malay. But starting this year we only publish in English.

Pn. J: How’s the response from authors or researchers?
Pn. R: The response is ok. Majority of the articles come from MARDI staffs. But we are also open to outsiders. But I think the response from MARDI staffs are not very good because it is very difficult for us to get articles for two issues a year. Only lately there is a policy on promotion exercise and people must publish to be considered in the promotion. So this year we get many articles because of this policy. Actually the exercise is there but was not strictly implemented. In the past many people got promoted without having published any articles.

Pn. J: I see, so now people have to publish to be promoted?
Pn. R: Yes, people must write articles to get promoted. Now I get more articles

Pn. J: If they don’t publish here where do the researchers publish?
Pn. R: I don’t think they publish outside a lot, but they presented in the seminars and conferences.

Pn. J: Why don’t they publish in the journal?
Pn. R: I am not sure. Maybe they are lacking of writing skills or problems in presenting the results. Maybe they would publish later or maybe not.

Pn. J: Is it because no enforcement on the management side?
Pn. R: Yes I think so. The policy is there but no enforcement from the management.

Pn. J: Is there any papers from overseas?
Pn. R: Seldom got papers from overseas. There is one paper from Canada. But we received a lot of papers from Indian countries like India and Pakistan. But these papers are low in quality and most of the time we rejected. We also received few papers from local organizations like UPM, UKM, USM.

Pn. J: What do you think about publishing in online only journal?
Pn. R: It is good. It is faster, lower in cost and people can access the result in time. Publishing in the printed journal will take time.

Pn. J: OK, personally you favoured online only journal. But do you think authors agreed?
Pn. R: I think they are agreed because the time to publish is faster compared to the printed journal.

Pn. J: What do you think the management’s perception in this matter?
Pn. R: The management is ok. Actually they did asked to publish the online journal and started to look for that sort of avenue.

253
Pn. J: Then, why is it still no online journal?
Pn. R: At the moment our MIS (Management Information System) is still new. That is their side. Not only publishing unit is using the service but other department such as circulation and online payment. At the moment it cannot cope up.

Pn. J: Maybe you can do in stages?
Pn. R: Yes. Right now ordering can be done online but we process manually. That is what we do now. But the management wants the payment online.

Pn. J: So, the management saw towards that?
Pn. R: Yes. We are also discussed with the bank how to proceed with that sort of things.

Pn. J: How about online publishing?
Pn. R: We have no problems. We are ready with that sort of things.

Pn. J: Do you have the infrastructure and the skills?
Pn. R: In term of skills, we are not fully ready. We still need help from Human Resource side. Right now we have one person responsible to the electronic section and another person in-charge of electronic publishing. We need more staffs.

Pn. J: Will the management of MARDI recognized online journal?
Pn. R: MARDI will recognize online journal. The main objective is that we want to disseminate the information as fast as possible.

Pn. J: Will it be considered in promotion exercise?
Pn. R: Absolutely, as long as you publish, doesn't matter in what way.

Pn. J: Can you tell about your facilities for online publishing?
Pn. R: We have the facilities to publish online journal but still in progress. As I said we are lacking of staffs and skills. However, we already put the abstracts of the current issues online not the whole papers. We are now scanning and put the back issues online.

Pn. J: How long will it take to put all the issues online?
Pn. R: Maybe in two or three years we will have online.

Pn. J: Which model do you plan to have?
Pn. R: We will have both print and online, that you refer as parallel.

Pn. J: What about online-only journal?
Pn. : Maybe. We may publish certain thing like manual in online-only. But publication such as guide book maybe printed.

Pn. J: In your opinion what are the reasons people don’t publish in online journal?
Pn. R.: Right now we still have old generation. They don't want to try IT. Younger generations prefer the online. Generation aged 45-50 are scared to try the IT. Some of them still don’t know how to switch on the computer.

Pn. J: So this is the factor?
Pn. R: Yes

Pn. J: Any other factor, do you think?
Pn. R: Maybe culture. Our culture is the kind that doesn’t like to sit in front of computer.
Pn J: From observation, people like to read but don’t like to publish online. What do you think the problems?
Pn. R.: I don’t know in other press, but in MARDI I think people don’t like to write. Year in year out you see the same person write.

Pn. J: We spend a lot of money doing research, but the results are not known.
Pn. R: I think majority Malaysian is like that. I went to MARDI meetings and the problems is the same. Why people don’t want to write? To say that they don’t have time, their work is doing research only and no other works. I also wonder, after they have finished their research they will get the results whatever it is, but they don’t write the results. Ok, some of them presenting in the conferences, but that’s only part of the research.

Pn. J: So the problem is not writing. Any more reason do you think?
Pn. R: It is really difficult to say. Maybe they are shy, but I think it is attitude. I don’t know what they do with the results. Maybe they want to keep for patents. But I don’t think we have many cases for patenting.

Pn. J.: Do you handle patent?
Pn. R: We have department that handle patenting.

Pn. J.: Do you think language contribute to this problem?
Pn. R: I think that is one of the reasons. I realize that Bahasa Malaysia is used as medium in the universities. The graduates are not competent to write in English. But they can take English course if they want to better themselves. That can be done.

Pn. J: Just now you said many are started to write since the management had introduced the policy in promotion exercise. Do you get from old generation or younger generation?
Pn. R: Majority of articles come from the people that are used to write. I seldom get from the new one. Actually we don’t know the exact reason why people don’t write. When we ask, they said coming soon but it never come. I am here very long, and I know who writes who doesn’t. However, compare to previous years, this year I get more articles. Maybe because of the promotion. Last time, people get promoted without publication. But I cannot say for sure. We just enforce the policy this year. The policy is there but we did not enforced. The management said must have publication before get promoted but many people get without writing.

Pn. J: It shows that our people need reward to do something.
Pn. R: We see that people overseas are proud to publish their research findings. But here, if we want our people to write, we have to give them something. They want incentive in term of money, promotion, or presenting papers and trip overseas, everything that we want them to do must have incentive. I think it’s our culture.

Pn. J: We said that we have problem to publish in the international journals, always get rejected. Why not we try to publish on line and get the feedback from people. It is open access preprint or open archives.
Pn. R: Never heard of. If we access this pre-print do we have to pay the fees?

Pn. J.: No. It’s open access. It’s free to access. But if you want to publish using open archive initiative the software is free also. Back to the problem that people are not writing, do you think if the big boss ask to write they will write, superior influence?
Pn. R: Not really. Sometimes the boss asks to write but they still don’t write, in a way they are against. They are forgotten that during the induction course at the beginning of their carrier they were told that their responsibility is doing research and at the end of the research process they must publish the findings, success or not. The result is the result. You cannot just put aside.
Pn. J: Then maybe you have to enforce?
Pn. R.: Yes, I think enforcement can help a bit.

Pn. J: Is there any other factor, like computer availability?
Pn. R.: Last time we can say that not all researcher has computer. But recently about two or three years ago all research officer get one computer.

Pn. J.: Maybe that’s the reason people are not familiar with online publishing?
Pn. R.: Maybe. Last time we don’t plan. We don’t have IT to save budgets.

Pn. J. : In Malaysia publishing is not priority because it doesn’t generate a lot of money.
Pn. R.: People in publishing must work hard to push their agenda, so that management can see the importance of publishing activity. One more thing, I don’t know about other institutions, people in MARDI said that our journal is not known outside, people don’t know that MARDI has journal. I don’t know what to say, is it not enough promotion?

Pn. J: Who said?
Pn. R: Our own people said that outside people don’t know that MARDI has journal.

Pn. J: Why they said that?
Pn. R: I think it is their excuse. They don’t want to publish in MARDI’s journal because it is not well known. But I want to ask them, if they don’t publish in our journal do they publish in outside journal?

Pn. J: Do you have a list of researchers publish where?
Pn. R: We do have annual report and list of their names. But as I told you the same person write year in year out. Most of them write in our journal not outside publications.

Pn. J: Back to online journal that you said you want to publish. What is the plan?
Pn. R: Right now, the plan is we will sell the journal. It is not free. However, for our own staff they may access free.

Pn. J: For the print journal do you give free of charge to your staff?
Pn. R: They have to pay with discounted price.

Pn. J: What do you personally think the future of online journal in Malaysia?
Pn. R: I think the online journal will be accepted by most people in the future. Because right now I think, the early generation has started sort of go with the online thing. It is not like last time, people are scared to use computer. But the younger generation they like the electronic things although must have some control because many bad thing in the Internet.

Pn. J.: Any more comments?
Pn. R.: No

(END OF SIDE A)

(SIDE B)

Pn. J: I would like to know more on how they presented their research result. Do they have the right methodology because some articles were rejected because of that?
Pn. R: I also sense this problem. Many researchers don’t know that they need guidance from statistician before they do any research. They thought they don’t need statistical guidance. They do whatever they like. In college they never come across of ‘statistics’ word. Some of them don’t know. Sometimes when we ask what is ‘population’ mean, they thought
'Malaysian population'. That is the problem. To make things worst many statistician in MARDI are retiring. I think it is the management mistakes, never see the importance of statistician. The management doesn't understand. If you do research you should know what model you want to use. Do you use person or tree, all this make difference. But sometimes they don't regard it is important, that's why the methodology not right.

Pn. J: Do you have courses to tackle the problem?
Pn. R: So far, no. We are planning to expose them to statistics during the induction course. They have to learn statistics. When you do the Degrees sometimes you don’t use the statistics.

Pn. J: Other than that, do you think English language play a role?
Pn. R: I think it has some truth. But in term of percentage, I’m not sure whether English language is the reason why people don’t write. From my experience there is problem in language. From the script given, we have to make a lot of language editing for both English and Malay.

Pn. J: So, maybe they lack in writing skills?
Pn. R: In that case, every year we have technical writing and popular writing course, People come to the course but still no paper come. Let say 30 people attended the course, but no paper is coming.

Pn. J: Can you tell what exactly is their problem otherwise we cannot help.
Pn. R: If you ask me, I really don't know. They have a lot of excuses. If they say they don’t write in our journal, maybe they write in outside journal but they can always not write anywhere.

Pn J: How many researchers you have in MARDI?
Pn. R: The latest figure is around 450 researchers But this year, 2005, majority will retire. You know it is so difficult even to publish one issue. If you calculate only a small fraction of researches are being written One time we have the technology so we publish a bulletin that deals with technology. After a few years the bulletin cease because no articles.

Pn. J: Just the bulletin. It is not reviewed. Is it?
Pn. R.: It is reviewed. The researchers complaint saying that they don’t have avenue for technology thing other than journal. Articles in journal must be experiment-based. So we open back the bulletin this year. Until now I haven’t get any articles for the bulletin yet.

Pn. J: How many percent rejected from the papers you have received?
Pn. R: Not very sure.

Pn. J: Do you publish all the papers that you received?
Pn. R: To some extent yes because not enough papers. No matter how bad the papers if it has some information, we will salvage and publish, because we don’t have enough paper.

Pn. J: Is it true?
Pn. R: Yes, true. Can you imagine that we plan to publish two issues a year. 15 articles in an issue. So we need 30 articles a year. With 450 research officers we just couldn’t get that. And they do research everyday. I understand that research has time limit. Some takes longer such as planting a rambutan. But other area like food technology we can get the results in a month. It is just so difficult to get articles.

Pn J: Do you have anything else to say?
Pn. R: I don't know whether you get the information that you want. But to me publishing a journal is not easy because it is not a culture of our people. They just don’t like to write for journal.
Pn. J: Thank you. Whatever it is, it is the finding. Maybe I can call or e-mail you in the future?
Pn. R: My e-mail is rar@mardi.my. Yes you can email me. Thank you.

( END OF INTERVIEW )
Interview 3: Puan Fadzlina

(She is the editor for University of Science Malaysia Press)

(SIDE A)

Pn J: Thank you for spending sometimes. I am doing a research on online journal publishing in Malaysia. So I would like to know your activity in publishing journals in general and online journal, if any.

Pn. Fadzilah: I am Fadzlina Mohamad Rau, at the moment I am the head of editorial section. I publish more of non-books as in series. I do journals, and I am more of a managing editor for these journals. At the moment we have fifteen journals, one is an E-journal but we are not dealing directly. It is under school.

Pn Jamayah: The school managed the online journal?

Pn. F.: Yes, the school managed, and the other two are still being managed by schools, but the two are not online journal.

Pn. J.: This one E-journal, is it parallel or online only?

Pn. F.: Online, no print version.

Pn. J.: Is it refereed?

Pn. F.: Not sure, actually I can give you the name of the editor.

Pn. J.: If it is online, I can access through online, is it?

Pn. F.: I am not quite sure if it is still valid, you can contact the person in-charge, Prof. Madya Rosman Hj. Dm. You can get it from him.

Pn. J.: Later maybe I need the contact number. These fifteen journals are all printed journals?

Pn. F.: No, fourteen are printed journals, one is an e-journal. I can't give you any information on that. You have to contact this Prof. Madya Rosman.

Pn. J.: Meaning the journal is not published by the USM Press?

Pn. F.: At the moment, the e-journal is published by the school.

Pn. J.: So it is school-based e-journal, what about the fourteen print journals?

Pn. F.: Twelve under USM Press, two is still school-based, Malaysian Journals of Medical Sciences, because as you know, our school of medicine is in Kubang Kerian, so more of a logistic problem at the moment. And they are behind time, so they requested that they catch up with the issue first, that latter they will hand it over to us. The other is Educator and Education Journal (Jurnal Pendidik dan Pendidikan) is handled by Education Studies Centre, and we will be taking over.

Pn. J.: All these are refereed journal?

Pn. F.: Yes.

Pn. J.: Do you get enough papers?

Pn. F.: You know what academic journals are like I suppose, so It has ups and downs I suppose. So far we are publishing.

Pn. J.: According to the schedule?

Pn. F.: Some are not according to the schedule.

Pn. J.: Do you get from outside?

Pn. F.: Yes, some international, and some regional.
Pn. J.: Personally, what do you think about publishing in online only journal, from your position as an editor?
Pn. F.: I think I prefer not to answer that. Since you ask personal right? I think I'll have to do a little more research before I can answer that question.

Pn. J.: Do you think copyright issue is a problem of having online journal?
Pn. F.: Yes, copyright is an issue, actually it's depend on what you are publish. Some of the E-journals are doing very well. But on the other hand, there are E-journals that are closed shop.

Pn. J.: From your experience what do you think researchers’ perception towards online publishing?
Pn. F.: That again is depend, because there was one lady I met. She’s an academician, from one of our local university. She published her thesis online and charged for access.

Pn. J.: So she self-published?
Pn. F.: Yes, she self-published and she’s quite happy with it.

Pn. J.: Who edit and review her work?
Pn. F.: In self-publishing there is no formal body to evaluate, so there could be a question mark on the quality.

Pn. J.: Is there any request from authors that you should publish your journals online?
Pn. F.: Not at the moment

Pn. J.: That mean, at the moment they are happy with the print form?
Pn. F.: I think generally people, maybe here, quite happy I mean Malaysian in general. At the moment we are not so much into E-journals. But that doesn’t mean people here do not make use of E-journals that are available.

Pn. J.: Do you have any idea why they still not publish online?
Pn. F.: I think market-wise, you know. Not because of anything else. Anyway, if you published an E-journal, you don’t get any payment right? So there is no different whether they publish in print or online they still got no payment.

Pn. J.: So as an author, do you think they bother about the payment?
Pn. F.: No, I don’t think so it’s not about monetary things.

Pn. J.: So what do you think?
Pn. F.: I think perhaps the infrastructure.

Pn. J.: You don’t have the infrastructure?
Pn. F.: We do have infrastructure, but perhaps they should be more demands from the authors for online journals then we might be able to do.

Pn. J.: But, let say demand start from the supply. If there is no supply people won’t know. Don’t’ you think so?
Pn. F.: Perhaps, I really can’t comment on that as yet, because I have to see some figures before making an assumption, there could be some truth in what you say, it has to start with supply.

Pn. J.: In the university press like here, do you see any inclination towards publishing in online journal?
Pn. F.: We have facilities actually, like we have e-books.
Pn. J.: You have e-book, maybe you already have the infrastructure in terms of software and the hardware and the skills.
Pn. F.: What I said just now, I meant generally not specifically the Press. Because we do have the infrastructure within the university.

Pn. J.: As a Press do you have the infrastructure?
Pn. F.: Yes

Pn. J.: But why don’t you publish in online journal?
Pn. F.: Because we, as a press we are not in control of certain decision. This particular decision would lies with the respective editorial board of the journals. If they were to request then we will publish online. Right now there is no request from the journal.

Pn. J.: The editorial board decides what medium they would like to use?
Pn. F.: Yes.

Pn. J.: Maybe they are not aware?
Pn. F.: I think they are aware. They should be aware of the medium available.

Pn. J.: They still like the conventional?
Pn. F.: Perhaps, I can’t speak for them. So far no request from our journals to publish electronically.

Pn. J.: So, as a Press would you someday publish online only journals? Do you have any future plans for that?
Pn. F.: Of course, we're discussing, I mean not really a formal discussion, but I think we have to keep up with the technology as they say. Definitely.

Pn. J.: Can you say when?
Pn. F.: No, no I can’t admit.

Pn. J.: You said just now, that you don’t have any problem in terms of infrastructure, skills and everything to start online only journal.
Pn. F.: What I mean is if there is really a request the Press can do because the technology, and skill is available within the University. In the Press itself maybe it is not enough, and maybe we need to get a better system. Actually where this Press is concerned we can handle E-journals, but it would be up to the editorial board.

Pn. J.: Editorial board of each journal?
Pn. F.: Yes. We can advice them but basically its up to them.

Pn. J.: Could you please elaborate on editorial board. What is the function of the Press in journal publishing?
Pn. F.: We acted as an advisor. Usually these journals are school-based and there will be an editorial board headed by the chief-editor and advisory board. The editorial board will select the articles for the journals.

Pn. J.: What about reviewing?
Pn. F.: Yes, they handle it also.

Pn. J.: And there are persons doing the clerical work?
Pn. F.: Yes. Basically the activity is funded by us the University Press. When we get the articles we deal with the publications processes.
Pn. J.: You do the copy-editing for the journals?
Pn. F.: Yes

Pn. J.: But the reviewing done by the editorial board?
Pn. F.: Yes

Pn. J.: So, as a Press you don’t have journal publish by Press?
Pn. F.: No. All the journals are published by the Press but they are school-based.

Pn. J.: Copyright belongs to?
Pn. F.: The Press. At the moment because of our workforce is not as what we want, so that is why it is still done by the school—the editorial board. But what we have in mind is that is going to be centralized. Selections of the articles were done by the editorial board and the reviewers. But the paperwork will be done at the Press. That is what we have in mind.

Pn. J.: From your experience do you think online only journal will be popular?
Pn. F.: But not all online journal available for free right? So there could be a constraint there. Unless they accessed for free because the library subscribes.

Pn. J.: Maybe you can work with libraries, so that whatever journals you have they will buy?
Pn. F.: I think this is what the journals are doing. We have to buy the hardcopy, we have to be a subscriber then we can get the journal online.

Pn. J.: But in case of online only journal there will be no print version.
Pn. F.: So it will be available from the database, is it? But the institution must be a subscriber. Otherwise, student for instance that’s going to be a problem.

Pn. J.: So far who is your main subscriber for your journals?
Pn. F.: People in that field, individual of that field, the professional bodies and institutions.

Pn. J.: Personally in your opinion, do you think online only journal will be recognized by the institutions?
Pn. F.: Yes.

Pn. J.: So far, what is the policy of your institution, do they consider online only journal as at par with print journal in terms of promotional exercise?
Pn. F.: Online journal here is at par. Except that you have to pay to access right? The hardcopy is mainly is for archive purposes. But it is very convenient to just access online.

Pn. J.: Some are free like open archive, some you have to pay.
Pn. F.: I am not very sure about this open archive.

Pn. J.: Open archive is open access. You can access for free. You can read in the Internet about open archive.
Pn. F.: That’s good. Yes I think they were mention of this, this open source thing among the chief editors.

Pn. J.: I see. But nobody acts on that?
Pn. F.: Not as yet I supposed.

Pn. J.: Do you think author prefer print compared to online?
Pn. F.: Not really, I really can’t say. It depends on the situation, maybe at any time now one of our journals might request to go online. We can do it.
Pn. J.: You mean as a press, you can do it right away?
Pn. F.: Nothing can be done right away.

Pn. J.: But you have the skills, person...
Pn. F.: Yes. But I can't really say that academician here preferred the traditional way of publishing. At the moment we are in traditional publication. Like I said anytime they can request and we can comply. I mean we are able to do it.

Pn. J.: You are able to do it based on request?
Pn. F.: Yes

Pn. J.: But until then you?
Pn. F.: No, not exactly, we have to see into things first. We have to study the pros and cons before we go completely online. I mean that's how it should be done right?

Pn. J.: So are you planning to have online journal in the near future?
Pn. F.: If you say near future I said no. Completely go online, no. What we have is abstracts in online, content and all that the usual things.

Pn. J.: Maybe can I have your email, just in case if I need more information.
Pn. F.: Actually I don't really know if I have answer your questions. You should ask the boss. But he is not around. Basically we do our best. We don't sacrifice the quality, that's why sometimes we missed an issue.

Pn. J.: Missed an issue?
Pn. F.: Delayed not discontinued. We have to maintain the quality of the journals.

Pn. J.: Some people said that they want to publish it but they don't have enough article, so they compromise with the quality. Publish whatever they get?
Pn. F.: Not as far as I know, this one I know because we had a workshop last year. We sat down and try to get down to their problems. Among the things is how can we assist them. These things were being told. Of course they faced difficulties in getting good quality articles. But they are very selective. I mean not all journals have the standard. Some maybe lower. Perhaps of course, we can't change people's attitude, overnight right? That could be a setback.

Pn. J.: So you think attitude play a role?
Pn. F.: Of course, but the academician here are generally very techno-savvy so, I'm sure it won't be a problem.

Pn. J.: Only it will take sometimes...
Pn. F.: Yes, to set up the operation.

Pn. J.: We know online journal is been there for sometimes. You think we need more time to change their attitude?
Pn. F.: No, it's not a matter of just attitude maybe we can turn around and give the supply instead. Just like you said. So perhaps we as the Press can look into that, the supply.

Pn. J.: But until now we haven't done anything we just wait?
Pn. F.: Yes, we just wait and see at the moment.

Pn. J.: Do you have any idea why online journal is not flourishing here?
Pn. F.: It can't be money because they don't get any.

Pn. J.: Yes, is it because of the recognition?
Pn. F.: The recognition is there.

Pn. F.: Much as I hate to say this, maybe the mindset. It’s possible

Pn. J.: Do you think the culture?
Pn. F.: But on the other hand I mean we are so techno-savvy, everybody is.

Pn. J.: Then why people are not publishing?
Pn. F.: Maybe the demand itself is not for local journals.

Pn. J.: Do people here send articles to outside journals?
Pn. F.: Many of them. It’s a norm in academic to publish their works isn’t it? I’m sure you know.

Pn. J.: Is your journals international?
Pn. F.: There are some international.

Pn. J.: If that’s the case why don’t they publish in your journal?
Pn. F.: Well, ranking perhaps

Pn. J.: Do you know your ranking, your journals ranking?
Pn. F.: No. But our aim is to get our journal cited in ISI. So far we cannot do it because as I told you sometimes the journals were delayed in publication.

(END OF SIDE A)

(SIDE B)

Pn. J.: You have focusing in publishing the print journal, so you put the online journal KIV?
Pn. F.: Not really KIV, maybe we can bring things up, I mean e-journals, e-publication.

Pn. J.: You said you already have the facilities, then why not doing it?
Pn. F.: Because as it is we are not fully concentrating on e-publications.

Pn. J.: You need more men power for that purpose?
Pn. F.: We can still start off, frankly speaking but it will be better if we have specialist.

Pn. J.: Do you have problem in downloading here, because some people said they are not interested in online thing because it is so slow.
Pn. F.: No so much a problem here. Sometimes it happened but not always.

Pn. J.: Ok. Thank you Puan Fadzilah for sharing with me the information about your Press and journal publishing activities.
Pn. F: Thank you I hope it helps. You can e-mail or call me.
Interview 4: Muhammad Kamarul Kabilan (Interviewee C)
(He is a lecturer in the School of Educational Studies of University Science Malaysia. A member of Self Interest Group to develop online journal of VIRTEC and Internet Journal of e-Language Learning and Teaching—iJeLL)

(SIDE A) (CASSETTE 1)

Pn. Jamayah: You initiates online journal and involved in publishing online journal?
En. Kamarul: Yes, I did published few articles in online journal

J. : So from you experience why do you want to publish online journal?
K. : One is easy in terms of not much cost involved than if you were send to conventional journal especially it is an established one, overseas, it takes a lot of times apart from cost because if you want to send an envelopes you have to spend at least RM 30, or RM40, then it may takes 2,3 weeks to reach the journal office. But through online it quite fast immediately they can get. I tend to look for journal that can accept the articles through the Internet that's email but they publish it as the conventional journal You saved time and money but at the same time the recognition is there.

J. : Why don't you send to online journal that don’t have the print version?
K. : I do sent to those journals but because my institution is I mean I don't know their policy, in terms of accepting online journal but I think nowadays it is quite common for a number of universities to accept online journals.

J. : You don't know the policy?
K. : I don't know the policy yet. Not so clear I think for myself currently online journal is, maybe the review process is not as thorough as the conventional, I'm not sure about this but there is the possibility to accept most of the articles submitted.

J. : Do you have a feeling that the reviewing process of online journal is not thorough?
K. : Yes, the reviewing process is not thorough.

J. : Is it from your experience?
K. : Yes this was my experience there is 2 articles which are published online and the acceptance process were very fast.

J. : The acceptance very fast meaning review process is not thorough?
K. : I get the feeling, yes.

J. : But you don't know exactly maybe it is as thorough as conventional?
K. : I don't think so, because no online journals are practiced peer review that thorough as conventional because, at the moment there is one article I am working on for a conventional journal but all the process are done through email. They send and I send back the amended one so I think it is quite thorough but using via email. So it's a conventional journals but the process is done through online. That kind of publishing I think is more self-assuring.

J. : As a researcher you prefer conventional?
K. : No as a researcher I preferred conventional and also online journal but, I think I have to be selective of the online journal.

J. : If the online journal go through the same process as the conventional, will you have the same feeling towards online journal?
K. : I only question the process of reviewing, it is not as thorough as in conventional. Because maybe online journal we don’t see the journal as in conventional journal where you can see the journal itself—the hard copy. But online journal they are in the Internet and you cannot
see. I think most people will question the authenticity of the online journal. There's one journal cum magazine that has been around since 1999 but it has stopped publishing in 2001 or 2002, it's purely online. So you can question why it ended just like that.

J.: It is not stable, you mean you have it and next time you don't?
K.: Yes, that could be a problem, it just that journal is not a journal if it's publish one or two issues. So the continuity can be questioned but I also see some journals that have been in existence since 1989 and still in the web. But based from my experience some journals had stopped halfway. When things like his happened it's quite difficult to really find out how are going to feel secure. I don't feel secure publishing in online journal like that. You don't know how long it will last. If the online journal belongs to big academic organization then it's different. That kind of journal is fine. Journal initiates by individual, or faculties are not stable. They have to be established first before we can publish in there.

J.: In other word, author in Malaysia have to wait until the journals established, let say after a few years?
K.: I think that's the risk that you have to take. If it's a journal like Dr. Amin's, did he show to you? That's a new journal right? Ok so let say within, we wouldn't know how long will it last but for me if it can last more than 5 issues or volumes that mean you can go publish in that journal. As long as it doesn't break in terms of publication time I think it's ok. But if the journal, let say supposedly to come twice a year does not come out on time let say twice, then I don't think it is established.

J.: In your opinion what is the reason that online journal is not accepted by academics?
K.: Five or three years ago people may not accept it but now I think there is general consensus where online journal is accepted because online journal that has editorial board go through let say a thorough reviewing and editing process I think it's now acceptable. I think most institution will accept as scholarly publication.

J.: You said, very few people want to send their article to online journal and they prefer to publish it in traditional?
K.: Well I cannot say the reasons why people don't publish in online journal because I prefer online or actually I don't mind as so long as it is established and I can gain something out of it.

J.: Now that we have the new platform to publish the research which is faster, cheaper and so on. Why don't use it, is it something to do with culture?
K.: To talk on behalf of others that have this problem is a bit difficult but I quite agree with you maybe the culture of Malaysian researchers. Maybe they don't have this sharing traits with others. I don't know if it's competition among researchers or they tend to have an attitude wait and see I don't know. But for me I think going online is not a problem and it should be encouraged, it's quite commendable because it fast any information you put online it reaches million within few days. I can't really talk about others but as far as I'm concerned I don't have any qualms with sharing or publish online as long as the place that I'm going to publish is quite operative.

J.: Do you think people need encouragement from superior?
K.: No, I think it is more on a personal basis, that is my own initiative, in fact when I was in UiTM in 1999 when the Internet is new I was like the only who used the Internet for research for the process of publication or whatever. No support and sometimes I think people will always doubt on the credibility of the Internet because, anybody can put anything at any time. That feature I think makes it very difficult for other people to believe in credibility in online publishing. But I think these days the mind set has change, people are acceptable to what is published in the Internet. Of course, people will check the form and content of these journals.
I think clever people really go through before deciding if it's true or not I mean the credibility of the information.

J. : You think they have change their mindset not like 5 years ago?
K. : 5 years ago especially like Anwar's case whatever you read you will believe it because it was still new and emotional, everybody believed what they read in the Internet. But now people are more rational they read of course they read, but whether they believe all the evidence is another thing. In order for the people to accept they need to go to all the editorials then they will decide for themselves.

J: Do you think language played a role in deciding whether you publish online or not?
K. : Yes, Because when you publish online, I read somewhere that one of the barrier for not publishing online is the language ability. People tend to be scared. If I put something online what will other people say about that? Because it's like an open book everybody can have a look at it. So I think that's really true especially researcher that are not competent in English. We know that almost 80% of journals are in English in fact online journals are even more. I don't think there is online journal in Bahasa Melayu (Malay language) in the field of education. Malaysia's first online educational journal came out in 2001 the one and only, but now I see one more.

J. : So language is the barrier, but then you can publish online journal in Bahasa Malaysia
K. : But who is going to read it? You tell me. Ok we have about 7.5 million Internet users with 4 million subscribed through TMnet or Jaring. Out of that Chinese are the most, Malay comes second out of those figure. If we slash again the Malays who really read the journals how many left? Maybe our counterpart like Singaporean and Indonesian, the market is not there.

J. : So if you want to establish yourself you must use English, no other choice?
K. : Yes, even if you're researcher in Bahasa Malaysia I think if you have to publish articles on Malay linguistic in English. There's no way you can publish all in Bahasa and establish your self internationally. If you published in Malay and still get professorship I can always question. Who has been your readership? Let say all his publication in Malay language, who was his external examiner for his professorship.

J. : So this is the reason why people don’t go for international journal?
K. : Yes that's very true because in my experience, I wouldn't say my English is excellent but I'm English language teacher so I foresee my language is better than other people who are native language is Malay. Even when I submitted articles for journals and the reviewing process they still can identified the language as barrier. If I'm as an English language teacher the reviewing process for me is tough imagined those who don't publish in English. Let say they try, it is very difficult. Language is important if you don't have the right language you cannot have the right ideas. So when it’s not there you tend to use language or term that is not appropriate and your ideas broken up, the expression not smooth.

J. : So can we say in other words, lecturers who has a background in English especially in TESL will publish more in international journal, they don't publish in local journal?
K. : Yes, they do published in local journal but they also have the tendency to publish in international journal, especially education. But some science researcher prefer to publish in international journal because the nature of their academic don't consider language very important but more on the content so there is a big different. But for language base, education you can see the different.

J. : I find that people don’t admit that English is a barrier to publish.
K. : It is a barrier. But I do know some lecturers in other field who don’t have TESL background they do published in English, because their English is good.
J.: Why do think that Malaysian don't publish as much as Singaporean for examples Singapore is small country compare to us.

K.: I think our education system it goes way back to the root of the problem, our education system stressed to much on academic we forget about critical and creative thinking which is very crucial in terms of writing. We focused so much on examination we don't let our student explore their ability to explore to venture out and seek ideas. Maybe with the smart school I see some light. Their curriculum is a bit difficult and different, it is not so exam oriented. So maybe we can get something from there. Not now, cannot.

J.: Is it really working?

K.: I had a discussion with one of a teacher of one of a smart school. She was teaching in ordinary school and now smart school. She said it is different. In the ordinary school the pupils tends to be more academic and exam oriented. So their results are good but in smart school the pupils are more open, brave, more creative in term of presenting ideas. But academically they are not as good as the ordinary school unless if the smart school is a boarding school.

J.: So we can blame the education system?

K.: Yes, I think so the education system. I give you one example, remember the Chinese boy who scored 13A? He's from my school Sultan Ibrahim. Now he's just ordinary accountant and in terms of contribution academically, what is his contribution? Anybody can get 13 A's I believed if you work hard you can, but can anybody go in front of the stage and talk about 10 or 1 minutes non stop giving concrete ideas, can everybody do that, I think cannot. Thing like that has to come with training and something inside.

J.: As an academician what do we have?

K.: We have the ability to talk but because we lacked something we cannot excel. I feel I also make a mistake. I just attended a conference in Australia last month that would be my overseas conference. My paper was on the last day so I just attend other papers, the way they present their papers they don't have presentation slips. But the way they presents ideas, the language used appropriate language use, appropriate ideas comes out. That was a different I felt like I am so small because of that, I didn't have the confidence because of the language determine the content whether we can give the message that we want to give in a proper and right language. Even during the discussion I can see they were very critical of some small stuffs, something that we here cannot do.

J.: What about writing skills, people who has better writing skills may have confidence to publish?

K.: Confidence comes with your enthusiasm.

J.: How is that?

K.: When you submit paper to be published you feel, I just finished my masters and I want to publish something so I sent it to the journal and they rejected it. Because obviously I didn't know the process, and the way of writing article for that journal. It is different from writing thesis. So the thesis must be written in the different way and it has to follow some process, I don't quite like the comments but I still follow because I want my paper to be published, but some researcher I know when they get this kind of things it defeats them straight away. In my case I'm not going to publish it anywhere else because it quite costly, it depends on your will.

J.: As a Malaysian you think that we are lacking of?

K.: Have you ever heard of RELC (Regional English Language Centre) I think the journal published quarterly something like that and you can see publication from, it is Singapore based. You can see publication from Australia, Singapore, Taiwan and Malaysian researcher but very few. It's very difficult to get publish by this journal, the standard is also high let say.
for TESL the language is English, your Malaysian English no matter how good you are you are still not native speaker. The same thing if the white man can speak Malay very fluently, still they are not native Malay speaker. There is certain things that only the native understand. That is the small thing that hinder certain publication. But once you get the right process of publication then it will come easy for you. I know a few lecturers in USM, UKM who have published in international journals I think there are specific ways to write, if we can follow that.

(END OF SIDE A)

(SIDE B)

J. : Do you think by giving courses will help academics to write?
K. : I don't think it'll work, I think the researcher has to learn on their own. We cannot teach them how to write. Let say we give them a writing course to a lecturer who has a PhD or associates professor, they may think or say who are you, giving them such a course. The person who gives the course doesn't have a PhD or AP. I think this thing still matters, it is very wrong. To me it doesn't matter where the knowledge come from, knowledge is knowledge.

J. : Publishing our ideas is not our culture yet?
K. : Yes, because we don't value the knowledge as knowledge. Why people want to be professor? A lot of reasons. Even me, I cannot lie because when you became a professor you got lot of perks. Not like in the UK, like my lecturers, if they don't have PhD they are researchers and even if they are professors they don't want you to call them professors, because they feel embarrassed. Something that is different here, we don't have the culture of knowledge we have the culture to get promoted as professor yes, try to get it as fast as possible.

J. : Can you relate with Maslow’s Hierarchy?
K. : Very low, very base. When our needs are still at the base our aim is very low. In motivation if you are high jumper and he set low you cannot exceed much. If you set 1 foot you may jump the most 1 and half foot, you cannot jump 2 feet it means we have to set higher so that we can work harder.

J. : Do you think the top down policy in technology contribute to the situation now?
K. : Technology is something that how you approached, if you have the technology but no skills it is still no use. I just write an article I think that would be a very good quote .. it is not necessarily the technology as to be innovative but the approaches to teaching and learning. We use the technology no matter how sophisticated the technology is but if the approach is still backward, it won't go anywhere new technology with traditional approaches. If you use the right approaches creative approaches you can maximize the usage. But if you use latest technology using very traditional approach what can you get? The technology is not important it's how we approach we have to be very systematic because researching, publishing we have to be very systematic we must have a will to succeed, critical to ourselves that's our approach. Technology is the same thing whether you publish in the international journal or not I think the process of publishing is the same, it is just a matter of form now, we have the technology we use it.

J. : As an individual do you think they need to know the technology, before they choose to publish in online journal?
K. : Not necessarily but, you can use online to help you for your publishing but, whether you are expert using the computer or not, it does not matter very much.

J. : Meaning other people can help?
K.: It's not exactly it is just that not a necessary thing. Only the form is different. I think all the academics nowadays they know how to use at least email. If you to publish online journal just do a normal thing in word and just attached and sent to online journal so you're submitting online journal. It's quite basic. Unless your research area is language, maybe you need to know how to have an automatic tool for publishing, that's very technical then maybe you need some help or you have to learn.

J.: How long you have involved in online journal?
K.: As a provider since 2001, started with VirTEC journal and iJeLLT.

J.: So you involved in both iJeLLT and VirTEC?
K.: Yes.

J.: What do you think about getting articles from the author?
K.: Yes, it quite difficult, because mainly we are not an established journal. There's one TESL journal they received I think 100 articles for each volume.

J.: Local?
K.: No international, they don't have problem but we have problem because we are new, still not established but I think we have to tell people maybe 10 years from now it takes time to build up a journal. At first of course you have to promote, later on the papers will come to you and you don't have to look for it.

J.: What is your opinion about this two journals iJeLLT and VirTEC?
K.: VirTEC is international because it has international editors and reviewers, and we try to get articles from locals iJeLLT is still first issue, maybe second issues we will get from international writers as well. We try to cater for Malaysian writers but no Malaysian writers.

J.: What do you think is their problem?
K.: I don't know one is maybe the language, English, because I've been reviewing one paper. It is quite difficult when they cannot convey in English they can write in Malay but if they write in Malay, this is about English language teaching if you write in Malay it is not very appropriate. As I said I think it has to be established first maybe, 5,6 years from now.

J.: So do you think our researcher will be more receptive to online publication compared to now?
K.: I think even now they're very receptive. It is just I think the guidelines set by the university, they must decide whether the online journal is recognized or not by the university, maybe some people feel that the journal is not reviewed so maybe it may get low rating so I think our researcher already receptive but they need to know clearly whether it will be acknowledge by the university or not. Like myself I will be going to USM and a lot of my material I dare not publish because I don't know what is the policy right there, if I do know the policy it'll be easier.

J.: Recognition from the university or institution is important?
K.: Yes, to me recognition falls no 2. To me a lot of things are still unclear.

J.: In online journal?
K.: No, publishing in general, not only in online publishing, there is a lot of things unclear I need sort them out first.

J.: You mean the quality?
K.: The whole process, questions like why do I want to publish?

J.: Why not?
K.: That's the question I need to ask myself first, why do I want to publish, because of what? Do I want the AP or promotion or whatever. I realized if you published because you want an AP or professorship I think it's not wrong it's just that the love for knowledge will be different, other people are publishing for different reasons. If you publish to share knowledge, to fulfill the self-esteem then it will enrich your willingness and your enthusiasm but if you publish for monetary reason you can just publish a textbook or workbook. Why do you publish a workbook for PMR (Lower Secondary Evaluation) for example, because you want to get a lot of money because it's cheap, and people would buy. But we the academics, why do we publish?

J.: You have the material why don't you publish?
K.: Yes, that's why I'm thinking why must I published?

J.: Why not publish it?
K.: The thing is that why do you want to publish it, is it to get names or money?

J.: Maybe you want to share with your colleague all over the world?
K.: That's I haven't decided yet.

J.: Ok. Let say now you've decided not to publish, why not? You have something you should share?
K.: Not exactly, ok in UKM I think they have a policy if you want to be certified in the job such as lecturers I think you have to publish certain numbers of articles journals or proceedings.

J.: It is the same in Malaysia or overseas people must publish so that they can stay in the job.
K.: That's why. I have met someone, like here for example I'm a graduate student and you're my supervisor and we present paper in conference, my name or your name will appear second or first. This person the one that I met in UK when I suggested co-writing something he said no but I will help you and I will review the paper, read the paper, gives suggestion but if you quote my name, this is not my work. In Malaysia when you help someone you must put their names it is like untold rule.

J.: Then you put the name?
K.: I was quite lucky enough to do the research with this guy. We would like to share and write and then we can put our names. His ideas of publishing is very different from us, all this while I thought base on my experience this is the way I mean what Malaysian had been practicing, but when you have another person telling you no that's not the way it challenges me and I was thinking what I'm suppose to do, what is my belief in publication? If we look at our publication, what are we publishing for?

J.: Meaning you are thinking why should you publish after all your name is not be positioned as the first author?
K.: Yes it could be anything, I was feeling something like this, let say your name is there, you maybe the main writer and the others just join in. What is the value of these people who just join in? Don't you feel that they didn't deserve it? You are the one who work through the articles. So that's my question that I have to answer first before I started publishing articles. Let say I supervise a student and the paper is accepted by the journal or conference but I feel my name shouldn't be there.

J.: That's why you think twice to publish?
K.: Yes,

J.: That's why people don't publish in journal?
K. : No, it goes back to the same thing you are trying to get professorship and you want your name everywhere. Maybe you want to help some one but in terms of ethic of publishing in the society let say my name is there, but I didn't do anything.

J. : Do you mean if he is your superior you have an obligation to put his name first but he didn't do much, and you are not happy?
K. : No, for me no problem if I were the writer I will include my supervisor, if I'm a graduate student I will put my supervisor just as a courtesy. But if I were a supervisor I will not allow my student to put my name, so it has to stop somewhere it has to stop with the lecturer not the student. The students are immature in terms of publishing.

J. : What about colleagues let say he is your head of department?
K. : I never experience that I can't answer. Maybe there is because I've heard that but it is from someone else not the person himself so I cannot say.

J. : But is there any possibility?
K. : They will publish I think especially the big research project because you can't do it alone it is different and expertise is needed, like you need someone on statistics, someone from language and so on.

J. : So what do you think will hinder publishing?
K. : I really don't know but for me if I were a supervisor and my supervisee I'll put a stop to it. If I'm a student I don't mind putting my supervisor's name because I'm still na"ve to publishing but later on as a researcher things will be different.

J. : What about your head of department?
K. : He or she wouldn't know unless it is a project, people wouldn't know until it was published unless if he requested me to write something and put his name then it is different but people won't do that. I have seen this lecturer in science win a gold medal in one of the homepages, in term of idea I think it is ok, but I dare not comment because it is not my field but I see they are winning gold medals.

J. : Maybe the gold medals they highlighted not the money they had spent?
K. : When you published because of money and not because of the knowledge itself it is very different, when I was in Lancaster this man named Paul Troler, in his room there are 3 cupboards full of his books he had written. We have to question ourselves why do we publish? When we publish for another reason I think it's very cheap in value, if we published because you love publishing and the knowledge, you want the knowledge to develop that's very interesting. Have you known any books in education for example written by Malaysian that has quality like P.R.J or even Maslow or any of these? Have you seen?

J. : But we have been sending our students overseas since independence, why we still don't have experts?
K. : Because I think our education system still concern about getting more A's. I'm sure you are familiar with UK education and if you put our Malaysian student in any university I think they will get good result, we will always. Here this Ong Bai Ling top student in University of Bath but in actual sense who do you think accomplish more? Ong Bai Ling or the Whites? These White people are not bother how many A's you get but more importantly how well can you think, how well can you present your ideas that's the different. Like one Sarawakian who went to Oxford because he is genius, he focused on math. Malaysian mindset on math is there, they send the children to learn math and don't mind if their English don't get A. Like science students, they take math, science, physic, chemistry, biology how many subjects if you want to be a doctor and you don't need modern mathematic all you need is biology and chemistry so why don't you focused on these 2 subjects? We only started doing this in SPM
about 3-4 years ago. If you want to do medic you only need biology and chemistry A. So what
general study got to do with medic that you must pass in order to pass in the examination? If
you pass statistics with A does it help you in medic. I understand if you must pass the
chemistry because it will help you to become a good doctor and biology because medic is
biology. Do you need other than these subjects to become a doctor? But our Malaysian
system you must pass Bahasa Malaysia, English, math, science, chemistry, physics, biology,
religious study and too many other subjects. We want to be jack of all trades all must be good
but the specialized one not good. To illustrate better we take the car as an example. Do we
have design our own car? We have Proton but the engine is Japanese design, we modify here
and there, can you say it is Malaysian car with Malaysian engine? No I don't think so. Who is
the engineer for Penang bridge? Petronas twin tower, I think the engineer is from Germany or
Australia. None is ours. Do we have any educational theory applied? Can't be bothered
because our education is stressed so much on examination. We have UPSR why do you need
UPSR for because after standard 6 the government had make a law that all pupils must go to
form I regardless whether you failed or passed UPSR you must go to secondary school.
Instead of national open examination do an individualized examination because you need
something like SPM but you don't have to take 13 subjects, you can kill yourself.

J.: Back to our system basically why we have this kind of researchers, this kind of
complications?
K.: We are not cultured enough to appreciate knowledge so student read but they read for
exam. When we do research to see why our student don't read newspapers they read exam
books, so when they read exam books do you think they want to read story books? But
Whites, like when I went to Australia last time I get acquainted with an ex-soldier in the train,
hisaid 'excuse me I need to read the book'. This is a soldier not highly educated, but because
their love for knowledge, they read. So I think it's the same thing for publishing, why do you
want to publish? To share knowledge you will proliferate in terms of you will want to write
more. That's why nowadays when he or she get professorship he will stop writing. How many
professors are keep on writing after receiving the professorship? None.

J.: Maybe they get promoted and do the administration work?
K.: But not all, there are professors not doing the administrative.

J.: I think these people are still publishing.
K.: Yes very few. Very rare and difficult to find like finding a gem in the sands. VirTEC is
the first educational online journal in Malaysia which truly online, send online, publish online
everything is done online. But now we have server problem that we didn't anticipated and to
make thing worst the money also gone, finish.

J.: Is server very expensive here?
K.: 4,5 thousand

J.: To maintained?
K.: No, to buy a new one. We have to see who are the people involved with the initial
research project.

J.: Maybe the university can see into it?
K.: This project I think Dr. Amin use the money from UNESCO.

J.: It looks like individual responsibility?
K.: Yes, like I told you when I was in UiTM there was no support, so like Dr. Amin, he has
no support here. It is so difficult to publish.

J.: This online thing it seems no one knows how to go and where to go?
K. : That's true. But this project with Dr Amin I just lucky. I'm really crazy in the Internet because it is new, I was doing classes online everything so when I want to do my Ph.D I went to see Dr. Amin and coincidently he was doing the same thing for UNESCO. He got the money and he said ‘why don't you become my RA'. So I suggested that we do journal and digest, on education. Put the conference papers online. I try to get the papers from the lecturers. I approached all the lecturers that I know personally. They were very reluctant to share and they ask whether the university would recognize this publication or not. Eventually they give me old papers the past 2,3 years conferences, and I took all of them.

J. : Why they are not willing to share?
K. : Because the recognition by the university. This online journal of ours is not reviewed, we have just started, so people don’t get remarks on that. If you go to journal like Education Line you got papers as new as 2003, 2004 these people will put theirs in there to share knowledge and to get feedback so that they can improve their paper. That's the motive but our motive is different.

J. : So you publish just for recognition?
K. : Yes, when you publish for recognition is not the same as you publish for sharing the knowledge, for the sake of knowledge not for the sake of money. That's in a very idealistic way. When it came to the digest we suggested at that time I have a list of all the online educational journals and I found out we have none in Malaysia. What we have is websites for conventional educational journals on linguistic or something like that and they look like going to die because no updates. So ours would be the first online educational journal that came out in 2001 compared to TESL journal from the US way back in 1992, 1993, and that's how we are late. And now unfortunately our server is down other wise I have already put 4 volumes and each volume I put in 10 articles.

J. : Can we put in other word that the university, or organization are not so enthusiastic on this thing?
K. : Unless if you get a person who is really willing to put that on top then you will get. I have seen like UM’s website where they don't change the education faculty’s website for a year, last updated 2003, or 2002. UPM’s faculty of education’s website also the same, no change for 1 year, only recently they updated it. Internet you have to keep up, if not when people see 2002 and now is 2004 it is stink. You have to be Internet savvy to be interested in that field otherwise cannot.

J. : The government say this and that but you think people are not listening?
K. : We don't do it. If your VC, or dean willing to wait personally and monitor, give to people who can do the job and tell them that you want to see, every 3 months there must be updates or progress then I think you can see it work.

J. : Meaning the superior must supervise?
K. : I think so.

J. : Do you have any idea how to change the situation?
K. : If we are educated we can do like other people but until now you can see even the university students cannot think and behave like one, they cannot survive in the university. The school system right up to the secondary are not helping in creative thinking, they were spoon feed. The students were trained in the school like that for 13 years, what do you
expect? So I think hopefully the sekolah bestari (intelligent school) student will came out slowly.

J. : Is it different from sekolah wawasan (vision school)?
K. : Wawasan is just a concept putting 3 schools in one one area.

J. : So bestari is still on?
K. : Yes.

J. : I heard that not enough facilities in bestari schools?
K. : Let say you are the policy makers. They have many levels and it will dilute as you go through all the levels. You have ministry, department, local authority, school and when it reach at the student level the concept is not the same like what they have imagined at the top level.

J. : Education has been used by the politicians for their own benefit?
K. : This Education Ministry I think is a laughing stock.

J. : So we just hope another 14 years things will be different?
K. : Until we change our education system nothing will change

J. : We can only hope for the best. Thank you for your time.

(END OF SIDE B) (TAPE 2)
Interview 5: Prof. Madya Dr. Shireen Haron

She is the head of University Publishing Centre (UPENA) of University of Technology MARA

Note: This interview was conducted under a lot of interruptions such as ringing phone and answering calls. The interview has taken about three hours.

SIDE A

Pn J: Good morning I come here just to get some information on journal publishing particularly online journal.
Prof. Shireen: I'm sorry I cannot fixed a better time for the interview, I just came back from Sarawak for writing workshop. Ok actually I cannot answer much for journal because we publish mostly books. For online journal most people here didn't into it.

Pn. J: You mean the researchers?
Prof. S.: Yes, because recently we have something similar like this. We talked to lecturers, because I'm the head of the Centre of Continued Education, research centre at this university press. When I discussed with them that how we can publish their books. We as publisher have not gone in publishing online, only concentrating on printing textbook, and books, my latest project. When they questioned me 'are you going to do electronic publishing?' The university asked us whether we would publish online publishing like thesis online, we said 'we don't have the expertise to go there'. Right now we are going to do like e-marketing so that people can buy our books online. But we have not gone into publishing online books.

Pn. J.: Do you publish journal?
Prof S.: Yes, I published journals. Our latest journal was for Engineering Faculty.

Pn. J: How do you publish your journal?
Prof. S.: Okay, we rely on the faculty, the faculty will appoint the editor in-chief, the editorial board, the editorial panel and they will call for papers and this is open to all universities. Usually they get from conferences or bulletins. Now this is, a national reviewed journal but is not internationally reviewed. When internationally reviewed you must have international editors, or international advisors right? We try to publish with the faculties. There were questions from these faculties that if we would want to do it online and whether we would do like multimedia publication like CDs and that kind of things, because that's the in-thing now. But we don't have the expertise. We do have expertise but we do not have the structure to do it. If we want to do, we would have to invest a lot of money especially for CDs. So we planned to continue our work on improving the quality of our publication, increasing the quantity because right now we feel like it is still a small number for UiTM's publications. Like twenty-four books per year. So we have to speed up our process.

Pn. J.: How many journals do you have?
Prof. S.: I think about ten types of journals in the period of three.

Pn. J: Do you edit the journals here in the Press?
Prof. S.: Yes, we get the whole manuscripts from the faculties and we edit and some we send it out for editing, no more reviewing because the editorial boards had done it. Therefore, we did not review here. But books yes, we get it reviewed by the professors from other universities. We don't get them reviewed by the UiTM's staffs.

Pn. J: In that case how many staffs do you have in the Press?
Prof. S. At the moment, we have twenty and we are expending our marketing arm so we have all together thirty people. Now we have different structure from UPM and UM. We have one head and then six coordinators.

Pn. J.: Is your project done in-house or do you send out?  
Prof. S.: We appoint each faculty and each branch campuses one publication coordinator. For every three months there will be a meeting where they will meet me. So there are about thirty-two of them. They will meet me to report how many people will be going through the writing workshop every month. We go from campus to campus to promote the writing workshop.

Pn. J.: Every month?  
Prof. S.: Yes, all the branches including Sabah and Sarawak. This month we are going to Melaka. We formed a team comprises of certain faculty members who are active writers.

Pn. J.: Do you think the academics are lacking in writing skills?  
Prof. S.: UiTM we are different. We became a university just a few years a go. From my experience right now is the pattern of writing. The momentum of writing comes from the juniors, who are associate professors, my batch. The seniors I find it difficult. They are untouchables that's my personal opinion. We have been writing since 1989 for PJJ (distance learning), so we have producing. I have got about 89 or 90 manuscripts now waiting for publications.

Pn. J.: These are books?  
Prof. S.: Let me see, we have five thousand something lecturers, having 89 manuscripts per year is so small. For us in UiTM we like to promote more books. For example we have now 5000 lecturers we hope that we could produce like 100 books per year.

Pn. J.: So your concern now is on books, how about journals?  
Prof. S.: Yes, we started promoting the publication of journals I think since the last two, three years.

Pn. J.: Before that you don't have journals?  
Prof. S.: No. Journals are only done for internals. Some people send their articles to the journals overseas. Now publishing journals for faculties is difficult. To continue getting papers which have high quality is difficult. But right now we emphasised that in UiTM you have to write you have to do research and you can see that the momentum has increased that 500 percent increased of people doing research and 100 percent of people send in their manuscripts. That's a lot of improvement but we still feel we don't hit the target yet until we reach like a 100 a year. For journals we hope to have at least twenty-two a year. Twenty-two journal titles, for twenty-two faculties.

Pn. J.: So each faculty must publish a journal?  
Prof. S.: Faculties preferred to do it themselves, I'm not sure why.

Pn. J.: Does it have to be reviewed?  
Prof. S.: Yes, it has to be reviewed. In UiTM we do have research grants between RM20,000 to RM50,000 for academics. Well short term grant we emphasized on presenting the findings of the research, the attitude is ok for the researcher I think this is good especially for the researcher of the short-term grants. They would present in the international conferences and also we have internal conferences for them.

Pn. J.: Conferences, within UiTM?  
Prof. S.: The Institute of Research and Consultancy UiTM will emphasized that the academics must present papers at least in this conferences. Sometimes one research we covered about five or six papers but at least some will be for the conference. It is internal.
Pn. J.: If they present in the conference what happen to the papers?
Prof. S.: Actually they have the proceedings, but somebody told me that the lecturers are not sure about the publishing. When you put the articles in the proceedings can you put it in the journal? So what we do now is writing the guidelines on how to publish as books, or papers in the journals. So I ask from the Institute of Research and Consultancy the scripts so that I can publish as books. Now I have got 89 manuscripts for book from the conference papers.

Pn. J.: They are all for books?
Prof. S.: Yes

Pn. J.: Articles for journals will be handled by the faculty?
Prof. S.: The faculty will handle it. We only help in editing and printing.

Pn. J.: Are you receiving any articles?
Prof. S.: Yes, articles to be published in the Proceedings for FSG. They are chemistry articles from managerial resource group for 51 chapters. We took the articles from proceedings and we make chapters, and divide it into four sections.

Pn. J.: The publication is mainly for students isn’t it?
Prof. S.: Yes, From conference papers we transform into books.

Pn. J.: Do you review?
Prof. S.: For journal we have to review. Some proceedings we do review because the publication will be circulated to the public. But some we just leave it like that. Actually it is more of compilation. We don’t want the papers scattered all over the place, lying here and there.

Pn. J.: But where can we get these proceedings?
Prof. S.: We send to all public university libraries. For example UPM faculty of education’s proceedings I can get their proceedings in our library.

Pn. J.: What do you think about having online publishing or online journal?
Prof. S.: We’ve talked about having the online journal. If ours to be online journal, it will be reviewed online journals and we are planning to do it here, we are getting it some money to be used in developing our publishing.

Pn. J.: Do you have all the technology and skills?
Prof. S.: We do have the skill and technology and the infrastructure as well. We have viable server worth about RM20,000 plus for that. I think some faculties wanted to have e-journal.

Pn J.: Do you plan to publish online journals in future?
Prof. S.: Yes. There are some people who are skeptical and some who are very exited about this. For me for UPEPA I think we are moving towards that direction, we also want to have online journal.

(END OF SIDE A)

(SIDE B)

Because that’s what people would, and can see, the image of the university. When we do online journals you would some sort of promote our centre as well. You can click and see the
titles of the books as well. There is one online journal that I was so impressed but I can't remember. It was so well-organized when you click like vol. 1 year 2002 for example you can see all the papers.

Pn. J.: Why do you think people skeptical about publishing their research results in online journal?
Prof. S.: If we look at our programmes like e-learning they still want to print, and they say going through the computer takes a long time. Why people I mean the lecturers don't want to write, they must think that our professors has doing something about this and they just pass the bucks. They use the Internet but I don't know for what? They used the PTPN loan (education loan) for what? They take the loan but they did not buy a computer so a recent research by myself my Ph.D thesis, there are 60% of the 250 students that we survey they do not own a computer and their learning through e-learning mode. So I was wondering what's wrong? Is it funny you are in the e-learning mode, the distance-learning mode but you don't have a computer. Whereas now I think computer is not that expensive. They prefer to do it in cyber cafes, how do you learn in cyber cafes? Or they asked their friend to print for them they do not go to forum. So I think is basically we have to force people to change.

Pn. J.: What do you think is the problem?
Prof. S.: Obviously is the attitude problem. The knowledge and awareness about what you suppose to do. People are doing something without really thinking. Actually I do not have time to find why people don't want to publish. I just ask them to write and tell them how to write because I have target for this Press, 100 books a year.

Pn. J.: What do you think the university's view on online publishing?
Prof. S.: It's not been discussed really but I look at it that it must be peer reviewed and have the international journal status so I suppose it will always recognized by the university.

Pn. J.: Now, you are planning to publish online journal Do you have in mind what is the model of the journal?
Prof. S.: No, I don't. I'm not going through it yet.

Pn. J.: So far do you sell your journal or you give it free?
Prof. S.: Our journal like the one publish by faculties usually they give it free.

Pn. J.: For online journal do you think you'll do the same?
Prof. S.: Maybe for promotional, maybe for the first two volume I give it free, later on I'll start charging when we are more established.

Pn. J.: Two volumes for two year is it?
Prof. S.: Yes for trial...to get support.

Pn: Ok. I see that you are very busy. Thank you very much for you time.
Prof. S: I am sorry. Ok.

(END OF SIDE B)
Interview 6: Aziz Yusuf

(Head of Publishing Unit at Malaysian Palm Oil Board-MPOB. Palm Oil Research Institute of Malaysia --PORIM and Palm Oil Registration and Licensing Authority --PORLA had merged in 2000 to form MPOB)

(SIDE A)

Pn J: Good morning. How are you? It is along time we didn’t meet.
En. Aziz Yusuf: Yes. I am ok. What is it that you want to ask me? I am sure you are familiar with publishing. Do you take coffee or tea?

Pn. J: Thank you. Tea should be ok. The other day I met Khalid UTM Skudai, and he didn’t know much about MAPIM (Malaysian Scholarly Publishing Council) function in promoting scholarly publication. Maybe you can say something since you have been in publishing quite a long time?
En. A.: Right now MAPIM is headed by UPM, your DVC as the chairman. We rotate the post to all the universities. After few years we change to another university.

Pn. J.: If you rotate how is the implementation aspect?
En. A.: At the Ministry level Professor Hasan is in-charge. Now it maybe under Higher Education Ministry. Last time it was under Ministry of Education. Why didn’t you ask Gala, she is the secretary, she should know more.

Pn. J.: She is not around, medical leave, have small operation. I ask Kamariah, she didn’t know because Gala never involved her.
En. A.: She get information from there. Now MAPIM has a lot of restrictions. We cannot move as free as before. Dewan Bahasa also join in. Last time during Hasrom in-charge he did like society style.

Pn. J.: Now?
En. A.: Now a bit regimented and even to make a proposal is difficult.

Pn. J.: No specific staffs to do the clerical work?
En. A.: No. It is chaotic, not in order, difficult.

Pn. J.: Who are the members?
En. A.: All public universities and collages and some private universities, research institutes and Dewan Bahasa dan Pustaka. Now we have 18 public higher educations and they have their own presses.

Pn. J.: Good development. Last time it is so difficult to get articles for journals maybe it is different now?
En. A.: It is the same. Still very difficult to get materials. Just imagine we want publish a union catalogue and it is so difficult to get the material. I don’t know how.

Pn. J.: What about your journal?
En. A.: We in MPOB get the materials normally from our researchers. What we do here is the primary data. What they do in the laboratory they will write after the result being validated. So sometimes it take long time to get the results. They have to do it over and over to get the results. That’s why it is slow, we cannot get articles in time. Secondly is the attitude I suppose. Their attitude for not submitting the research results to us. Thirdly, is the competition from other journals, they want to publish in the international journals outside.
Pn. J.: Is your journal not international?
En. A.: It is an international journal but some people want to publish in the more influential journals. Our journal in MPOB is dealing with world oils and fats. There are some other high class and recognized journal and these people want to put their articles there.

Pn. J.: You think you are competing with outside journal?
En. A.: Our journal is always come second. If they cannot get publish in other journals they will come to us. It make us in difficult situation not because we don’t want to publish sometimes the quality, sometimes the quota for that particular issue has full. But this time I got plenty of manuscripts. Usually I put 8 articles in one issue but now I have 26. I don’t want to keep it for the next issue because it will be long, I year and the value will go down. So I think I will publish maybe a bit thicker, 26 articles.

Pn. J.: What is the frequency?
En. A.: 2 times a year, June and December. The June issue already published. So now I’m working on December issue, and luckily I have many articles.

Pn. J.: Things like this seldom happen isn’t it?
En. A.: Yes, seldom happen. This is what will happen if you depend on the primary data. If you are lucky you can get many, sometimes you don’t get this much because no results.

Pn. J.: Is that mean you don’t have problem in getting articles?
En. A.: No

Pn. J.: Ok, if you have results, people must write. If you don’t get any paper meaning no results have been produced?
En. A.: There are people who don’t write at all. But here the management make it compulsory for people to write, every researcher must produce 2 papers at least two papers from each researcher. From these 2 papers some published outside, some inside and some presented in the conferences. We have 150 researchers. If we calculate we can get a lot of papers. But sometimes the results are not out especially in the field like biology. You know that you have to take years to get the result. We plant the tree after 3 year then we will know whether the tree can bear fruit or not.

Pn. J.: Maybe they have many research?
En. A.: That two research for every researcher. The result from biology research is slow because we use natural process but in chemical for example, we can get the result faster. We can get many papers from chemical division.

Pn. J.: What grant do you use for research?
En. A.: IRPA all from IRPA.

Pn. J.: How much?
En. A.: I don’t know, have to check with finance department.

Pn. J.: Do you have plan to publish your journal online?
En. A.: Now we have both print and on the web.

Pn. J.: Can we access the full text in the web?
En. A.: Yes.

Pn. J.: Free?
En. A.: Free. There are back issues, back by one issue. You cannot get the current issue online. We will put it online when the latest issue published. Actually this thing has effect on our subscription. People are willing to wait for six months to get it free online.
Pn. J.: Was the subscription OK, before you have the online version?
En. A.: Before we have on the web, the subscription was ok, can survive. There are people who subscribe, but now no more. However, our idea is not to make money from selling journals, we want to sell oil. So the idea is to sell the information, disseminate information, and we don’t care much about money. We want our product which is palm oil can compete with other world cooking oil. With 14 types of world cooking oil and fats we need to tell the world why we are the best. Why should you choose palm oil and not other oil. So the information must reach the decision makers before any decision has been made. That’s why we want to put online. We are publishing in two forms, print and online so that the information can be given to the decision maker fast.

Pn. J.: Why don’t publish online only without the print version?
En. A.: We must have the hard copy for permanent record, because if people change or delete the online version we won’t have it anymore. Secondly, people are still preferring the first. Like we say we need to give people more information why palm oil is the best compared to other oils? We can give the gist through online but the details has to be in print. People cannot read on the screen, they can only browse. When our representatives overseas get the information they will give to the decision makers. And when the decision makers decide to use palm oil they may need more information in the print form. So we will send, and it may takes about 2 weeks.

Pn. J.: You still send hardcopy on request, free of charge?
En. A.: Yes. We will bear the cost. Our idea is not to sell the book.

Pn. J.: Who are your subscribers?
En. A.: Universities, and people of the industry. Right now we have 200 subscribers that I think we have reach the saturation point. So when I made available on the web, we make them not necessarily to subscribe. Then we are talking about palm oil only. Like MARDI they have a lot of commodities. We have only one, so I think it is about saturated, always the same person.

Pn. J.: Do you think people will subscribe when you put online for free?
En. A.: That’s right but the idea is like what the management said, we make them addicted. We gave them free on the web then after sometimes we will stop it.

Pn. J.: That’s mean you wish to charge later?
En. A.: Yes, now we let them addicted until one stage we will stop.

Pn. J.: How long do you plan to do it?
En. A.: We don’t know yet, because we just had started for 2 years.

Pn. J.: You don’t have a plan to put is as online-only journal?
En. A.: No. We have parallel. We must have the hardcopy for library, for report and our generation are still need the hardcopy especially for data like the pricing of palm fruits, they want it in the print form.

Pn. J.: How is the author perception towards online publication?
En. A.: The authors don’t bother how their paper will be published as long it is published. We give a lot of encouragement to our writers. We give best manuscript a reward every year. It is not much but you can walk handsomely with RM 500. But the most important is the certificate.

Pn. J.: Is it recognized for promotion purposes?
En. A.: Yes, yes. That’s the incentive.
Pn. J. : So you don’t have writing problems?
En. A. : It is not writing problem but how to start writing maybe. That’s the problem
especially among young researchers. How to write. So we give them guidance and courses.
Sometimes they have so much in their head but they do not know where to start. They don’t
know how to draw a conclusion from the research they have done. So we help them and we
call how to write it right.

Pn. J. : Do you have a language problem?
En. A. : Here, 90% of our publications are in English. Annual Report in Malay. I am sure
you understand why we publish in English, because our audience is the world. But the new
generation have problem because sometimes their English is not so good. So we get help from
editors and professional writers.

Pn. J. : Is it a software?
En. A. : No. People who use to write will stay together with the younger researchers to
coach. It is language coach.

Pn. J. : Do you pay these coach?
En. A. : Yes. We pay sometimes very expensive RM2000 for a manuscript. Usually before I
get the professional writer I will ask the director. Does he think we need the service? If he
thinks that this researcher has the substance but handicapped in delivering the message or
language then we will pay.

Pn. J. : Do you have that kind of situation?
En. A. : Yes, he is a very good researcher, got substance but his English is upside down. The
director agrees to get the service so we give them.

Pn. J. : Who is these professional writer?
En. A. : They are outsiders. They will sit and ask question on what the researcher is going to
write, and then make the draft, improve in the form that can be read and understood.

Pn. J. : They are expert in the field or in the language?
En. A. : More to language but must have some basic in science to understand what
researcher want to say, so a lot of discussion will be going on. Otherwise it is a waste for such
a good research but cannot be communicated.

Pn. J. : Cases like this, is it a lot?
En. A. : Not much. Many young researcher have problem cannot express in English.
Sometimes we can help at editing level, which is ok. But there are cases where they cannot
express at all.

Pn. J. : So far you don’t have problem in getting manuscript in English from your
researchers?
A. : No, we want them to write in English. So there is no question of writing in Bahasa.

Pn. J. : Do your researchers sent or presenting papers in other forum?
En. A. : Yes. Like in the international forum they have to go and present. Actually they
presented many papers in the international seminars and also in the international journals.
They prefer to write in the international journals

Pn. J. : If you organize the seminar what do you do to the papers?
En. A. : We will publish the proceedings and that is it, then we forget about it. Usually we
will publish the proceedings before the seminar. During 1980’s we used to publish after the
seminar. What happened was there were no papers to publish and no one will want the

283
proceedings. We have a congress once in two years where we have 5 parallel conferences, and we publish the proceedings before the seminars

Pn. J. : How to get these proceedings?
En. A. : It is in hardcopy, very thick. Do you suggest we made available online? Will it not look so sloppy if we digitize the proceedings? I don't know, so far no one request online. Other publication we do in stages, slowly we digitize the materials.

Pn. J. : Is that mean that you are going to digitize all the materials?
En. A. : Other form is in CD's and you can get these materials. What our staffs had been doing since PORIM (Palm Oil Research Institute of Malaysia) has established in 1979 to 2000 are in the form of CD's. It is some sort of database where we can check or searched what our staffs had written.

Pn. J. : Is it just a list or full text?
En. A. : In the CD's is full text. But we are slowly put them online in stages so that people can access via Internet. I think it is a waste of good works if nobody can read or use it.

Pn. J. : Are they reviewed journals or not?
En. A. : All reviewed. There are our flagships and we are trying to get cited. That's why the June issue we try to publish in April. That's our first step. I told the boys to publish the December issue in October so that we can get cited. When we achieved this MPOB can stand at par with other people.

Pn. J. : So far we know that the delay in publishing is the reason why we cannot get cited by the indexing agents?
En. A. : Yes, but now I am quite comfortable with the collection of manuscripts, so that we can publish early, but I must always beware of the future issues.

Pn. J. : Do you get support from the organization?
En. A. : I think it is in the form of the yearly rewards given away to outstanding authors. Writing journals got no royalties. And we pay the reviewers.

Pn. J. : You pay to make it faster?
En. A. : Yes, otherwise so slow. I am sure you knew from your experience or from the other Press. We pay RM150 for each article.

Pn. J. : How long you give them time to review?
En. A. : Usually I give two weeks. I realize when I give them incentives like this I can get on time and the report is satisfying, quite detail. To locals I give RM150, outsiders USD100.

Pn. J. : How do you send the materials, online or snail mail?
En. A. : Both ways. If the person can access online we will send the attachment, this way is faster. But some people prefer to have it through conventional way of printed version.

Pn. J. : For these people it will take times?
En. A. : Yes, I sent a postcard from Frankfurt to home takes 9 days. So, for the manuscripts to be reviewed, will definitely take time. Here the Internet really helps. But there are older generations who really don't care about the technology, or just being lazy.

Pn. J. : So age play a role?
En. A. : Yes. Usually the reviewers are in the 40s and above, the younger one cannot see their expertise. Usually we send by both ways, online and post. I think computer are terrific in terms of speeds, it only takes 7 seconds. It is good if we sell online but then our volume is small.
Pn. J.: Do you have the technical staffs to do the online journal?
En. A.: No. Here, only to print the journal. Then I give the soft copies to the senior assistant in library who is in-charge of all the digitization of library materials. She converts it to PDF. Last time we wanted the digitization to be done in the Press but then we are meaning I and her and other unit as well in the same division, the Director said pass the work to library.

Pn J.: So, your organization is supporting?

(END OF SIDE A)

(SIDE B)

En A.: Our Director is supportive with this kind of things and we have management retreat every year to discuss these things. Every year we have to propose to the management what each one of us planning to do in the coming year? Usually I, in the Press do the administration aspect. But he wants we come up with projects. So I visited University of Amsterdam with Hasrom and see how they send the manuscript online and the print room only has 4 staffs. They have Xerox technology to print everything including exam papers. I came back and proposed to buy the Docutech for RM1.7 million. Somehow when we merged (PORIM and PORLA to become MPOB) the proposal watered down, because they were many other bigger projects. The Director told me that the library has some system, and ask me to join in. So, it's like that. But the bottom line is we must keep abreast with the technology. The information must be disseminated faster other wise no use.

Pn. J.: Yes, that's why we should publish online.
En. A.: Yes, must be fast. Like newspaper it publish everyday so that people will get the news sooner. Like you import dates for Ramadhan, anything will sell but in other months, they won't sell.

Pn J.: It is good that you have technology-inclined superior?
En. A.: He challenge us a lot to do online. But we must justified and other thing is a lot of frauds face by dot.com like Amazon dot com has lost 20% of its revenue.

Pn. J.: So, in your case you don't have problem to publish online journal?
En. A.: No problem, we are going to do that based on the reason of usage. Last time I was presenting a paper on the future of books in the electronic era. Will it be like the typewriter disappearing in front of our eyes when PCs was introduced? They concluded as no, books are not going to be like the typewriter, but books are to be like the pen. No matter what technology will come it's still preferred because it's cheaper, more portable and closer to heart. Electronic will not replaced but to compliment the books. That is the scenario in here so far. Librarian will still looks for books at least for record and archiving purposes because in the electronic form it is not permanent. Last time we used a different programming for our floppy discs and now we cannot read those discs. One more thing is the hackers and they are very clever and we cannot see where our data will be kept, so the hackers can just do something and the next minute we have no data. I remember Hasrom said, that we can print but we cannot publish. Publishing is another process. Printing is one of the components in publishing. We know that to publish a book we have reviewing, editing, proof-reading processes. Many people don't understand but we cannot blame them.

Pn. J.: You are going to publish your materials like proceedings online?
En. A.: We are going towards that, at least we are going to put them in CD's. I treasure all these information.
Pn. J.: What about publication from the other organization (PORLA). Do they have records?
En. A.: It is all in the annual report. When we merged their publication is stopped and I take over everything. Actually they don't have many publications because they are more to industry not research. They don't have researchers. We have to tolerate because when we merged they got a lot of benefits and increments to be equal to us.

Pn. J.: Did you get promoted?
En. A.: No. We in PORIM are away above them. Our Director faced some difficulties in this situation. Many people from PORIM don't get promoted, but people from PORLA get a lot.

Pn. J.: So you are still handling the same thing like before the merging?
En. A.: Yes. I do the publishing for all MPOB's publications, one journal and proceedings, those normal things

Pn. J.: Thank you very much for your time.
(END OF SIDE B)
INTERVIEW 7: Pn. Saripah

(Editor at Publishing Unit of Forest Research Institute Malaysia—FRIM)

SIDE A

Pn. J.: Hi, as I inform you in the phone yesterday that I want to get some information on journal publishing activity in FRIM. What is your designation here? Pn. S.: I'm the editor of our journal.

Pn. J.: How many journals do you have?
Pn. S.: One.

Pn. J.: FRIM only published one journal?
Pn. S.: Last time we have two, but it was terminated last year.

Pn. J.: Why?
Pn. S.: Not enough papers, it was on products.

Pn. J.: The frequency of your journal?
Pn. S.: 4 times a year.

Pn. J.: So far do you have problem in getting papers?
Pn. S.: I received very few from locals but many from outside the country.

Pn. J.: Who are they?
Pn. S.: Many papers from India, USA and Australia.

Pn. J.: Do they have to pay?
Pn. S.: The authors will get the off-prints and we are not in the position to make them pay so far. Our name is not carved in the scientific world yet. It will take quite sometimes for that to happen.

Pn. J.: How is your subscription?
Pn. S.: Many subscription are from libraries.

Pn. J.: What about individual?
Pn. S.: Very few, but they go through agent so I don't know exactly.

Pn. J.: How many copies do you print?
Pn. S.: 300 only.

Pn. J.: And usually you can sell this 300 copies?
Pn. S.: No. The subscribers is around 100, we give free to our officers, got some left. Some copies finished. Recently we reprinted about 100 copies to some of those finished issues.

Pn. J.: Why do you think it is difficult to get articles?
Pn. S.: Maybe they are have no confidence in our journal. If they publish in the overseas journals they can get good reputation.

Pn. J.: Do you think that they like to send to overseas' journals?
Pn. S.: I don't think so. Maybe their writing cultures are not so great. People here don't like writing articles so much.

Pn. J.: Do you have many research here?
Pn. S. : Yes, we do a lot of research. Usually they are presenting in the conference and publish as proceedings. You can get the proceedings in the FRIM’s library.

Pn. J. : Why don’t you publish in the journal?
Pn. S. : Sometimes the articles don’t have the standard to be published in the journal. Maybe one or two we will put in the journal.

Pn. J. : Where do your staffs send the articles?
Pn. S. : Depends on the type of articles. If they write about medicinal plant, maybe they send to medicinal plant journal, it is better isn’t it? More specific. I cannot answer for them. It is not fair for me to judge them why they don’t send here, some of them do send here. We are also open to universities sometimes I received articles from UPM.

Pn. J. : Can I say it is difficult to get articles from your staffs?
Pn. S. : Yes, you can say that. Very few.

Pn. J. : Do you have plan to do online?
Pn. S. : Last time we did talk about going online. At that time our typesetter cannot cope up with the job. It takes time to put all the graphics into text and so on. But now she had gone, so nothing happen until now.

Pn. J. : So you sent outside for typesetting?
Pn. S. : Yes

Pn. J. : How about facilities to do online? You have them?
Pn. S. : We have publication department. We sell articles, RM5 for each article. When the journal published we digitised and sell. It is not like online journal. The articles are from the reviewed journal that we have printed.

Pn. J. : All kind of materials or only the journal?
Pn. S. : Books, journals all kinds. You can visit our website.

Pn. J. : Who is doing the job?
Pn. S. : Computer Unit together with the Library.

Pn. J. : What about the current issue?
Pn. S. : Although last time we plan to have online journal but now no more. We abandon the plan.

Pn. J. : What’s the problem?
Pn. S. : The whole thing is not settled it’s not easy to work with other people. We cannot control. In here we don’t have anybody to do the job.

Pn. J. : Do you need people who have skills?
Pn. S. : Our job here is to edit, typeset and print. Even now I have to send out for typesetting and printing. People in IT in the Computer Unit can make it online if they choose too. In our case we need people and we can learn. But IT is beyond our control. Whether they want us learn to put online, or use their server, I don’t know. We have not into this matter seriously.

Pn. J. : If you want can you get the facility to do online?
Pn. S. : Yes, if they really want it I mean the big boss.

Pn. J. : Maybe you can get the replacement staff that is suitable for online project?
Pn. S. : Looking at the situation now I don’t thing so. Just the plan, nothing will happen.
Pn. J. : Why?
Pn. S. : First I can only ask for the same post for the typesetter that had gone and I cannot get the different post. Actually she is the typist and the post is typist but we don’t need a typist so I asked her to do typesetting job. Secondly I don’t think people will come here to do the job. Typesetting is a very mundane job. Not many people like to do the job unless they have to.

Pn. J. : So what is your plan now regarding the online project?
Pn. S. : Right now the online journal is not our priority. We just talk about it before, but it is not in our target and we don’t work for it, that’s it. Right now we don’t think we can do it.

Pn. J. : How’s your big boss has to say about it?
Pn. S. : I don’t know. During the publication meeting we discussed about research and mention about online journal but at that time we are I mean the publication unit is not ready. I don’t know his inclination, I cannot answer. I suppose if he is really wants he will tell us, but right now nothing. We don’t know.

Pn. J. : So you continue with print?
Pn. S. : Yes.

Pn. J. : What about budget?
Pn. S. : Budget for this one journal, no problem.

Pn. J. : Other than journal do you publish anything else?
Pn. S. : We have book in series.

Pn. J. : Do you have catalogue for your publication?
Pn. S. : Yes, but I cannot give you because the one that I have now is the old one. We have to update.

Pn. J. : Do you sell this catalogue?
Pn. S. : Last time we gave it free But now we don’t have it, I have to print the new one. We have different series of books, so we have a lot of titles. All these books were written by our staffs.

Pn. J. : Is that mean your staffs prefer to write books?
Pn. S. : I don’t know.

Pn. J. : From the number of articles that you have received?
Pn. S. : I don’t now, its not fair me to say yes or no because they might write for outside journals. Our target for papers is a lot one officer has to write 5-8 papers per year. If they don’t sent to me, surely they sent elsewhere.

Pn. J. : You said you have many books written?
Pn. S. : The book are accumulative over the years. This one has been written for quite sometimes.

Pn. J. : How many titles in a year?
Pn. S. : I don’t know maybe 3, 4. Sometimes 11, 12 in a year, you can check in the annual report.

Pn. J. : Do you send the report to National Library or anywhere else?
Pn. S. : We send to National libraries and some university libraries. We are here to publish journal and books in the print form Proceedings sometimes published by the respective departments. Our journal is Journal of Bamboo and Rattan. I’m not sure whether you can find
in the website. If you want to know the authors’ inclination as to where they publish you have to ask them.

Pn. J. : Maybe you have some idea about their preference?
Pn. S. : Last time they send to us but we cannot publish on time, but now we make sure that won’t be a problem. However, maybe they still have the perception that we are still late, I’m not sure.

Pn. J. : So now it is on time?
Pn. S. : They have to wait long for the paper to be published.

Pn. J. : Ok, is that mean that now you publish on time?
Pn. S. : It’s our priority to publish the papers

Pn. J. : Is it on time or not? Will the January issue come out in January?
Pn. S. : Usually end of January and now it is ok. We do some strategy and recently we got the citation from the indexing agent, ISI. So I think it ok.

Pn. J. : When do did you get it?
Pn. S. : We got it end of last year,

Pn. J. : 2003?
Pn. S. : Yes, on time is one of the criteria and they really check on that. We managed to get that so we are looking for a better prospect but I’m worried too. I have to be constantly on time.

Pn. J. : Next issue will be in?

Pn. J. : How many articles do you have in one issue?
Pn. S. : About 12-15. I limit it. The previous editor put many papers in one issue. So it was thicker. I don’t want to do that because it means our cost will increase but the price is still the same, low. So I thought 15 is sufficient.

Pn. J. : Have any problem on reviewing process?
Pn. S. : If the referees don’t send the report with in 2 months we will send to others. And if they don’t respond we will find the different batch. So far we have no problem because we have a lot of papers. All papers are reviewed including the notes. Notes is like short communication

Pn. J. : Do you need hardcopies when authors sending the articles?
Pn. S. : We ask for both. We cannot read from the screen so we need hard copies. Sometimes we have problems like the graphics won’t appear so we need the hard copies, even papers from overseas, we ask for the hard copies.

Pn. J. : So you don’t trust online delivery?
Pn. S. : No, we need the hard copy. When we send for referees we also give the hard copies, we don’t just send through online. We use double blind system, the referees won’t know who is the writer and the author also don’t know who the referees are.

Pn. J. : For the time being you just digitised the published journals?
Pn. S. : Yes, it is done by the library. The library will digitize and put it in the server.

Pn. J. : Library has the staffs to do the job?
Pn. S. : Yes, the library had the skills and facilities. Actually the library and the IT Unit, the Computer Unit is working together. I don’t know how they work. You have to ask the librarian because he is in-charge of the project.

Pn. J. : You said last time you have plan towards online journal?
Pn. J. : At that time the head of publication is Dr. Rashid. He wants the online thing, but at that time we don’t have the capability to do it. But now we are no longer under him, now under Dr. Chan. We have separated, and now we are under research management The Library and the IT Unit are still under Dr. Rashid

Pn. J. : So now you don’t know what is the plan?
Pn. S. : If Dr. Chan wants us to do online we will do it but it is not up to us

Pn. J. : Personally do you think any advantages of online journal?
Pn. S. : It is faster, you don’t have to wait for 15 papers. More people can access. You can publish one by one and then when you have all 15 articles you can print. That’s what I see.

Pn. J. : Any set back?
Pn. S. : To me the proceeds is still the same. Only the medium is different.

Pn. J. : From 300 copies how many you can sell?
Pn. S. : Say about one third. Sometimes people want the back issues so we have to keep it.

Pn. J. : Do you keep track on the online version that library help you to digitise?
Pn. S. : We know who has bought it. We just launch last February, maybe 2 or 4 people asked and one person wanted to buy it. It’s not good to quote is it?

Pn. J. : One?
Pn. S. : Yes, a person bought it. He tried to access but our service provider got problem and he cannot surf. So he sent a cheque and asked us to send the articles. He wants 5 articles.

Pn. J. : So you just have the abstracts online?
Pn. S. : Yes. If they pay then they will get the full text. For book they can see the synopsis or the table of contents.

Pn. J. : So you have to wait for your boss to direct you to have online?
Pn. S. : If we are still under Dr Rashid he will do this because he said he wants it. But at that time I need time to learn. At that time we have problems I mean the skills. After we rectify it then shortly he moved out.

Pn. J. : Personally what is your inclination?
Pn. S. : If you have the resources you can do it. Right now I don’t have the resources. I am aware that eventually people will go into it but personally I would rather prefer the hard copy anytime. It is easy to read, but we editor is different maybe the officers prefer to have online. I think all the same I still have to edit, then if the boss wants it online when its ready I put it in online.

Pn. J. : As an editor maybe you have an idea to which direction will you go in the future?
Pn. S. : I think both forms is the best, because I just can go online even if I just got one paper. Then if I got all 15 articles I can compile into one issue and print it. Then I can sell the print version and whoever wants free they can go online.

Pn. J. : But to do that you have to wait for the direction?
Pn. S. : Right now we don’t have resources, we have to wait for mercy from other people, it is difficult to monitor. For example I have to wait for the green light for the digitisation process. It is easy to print because I can control the process.

Pn. J. : You really need staff?
Pn. S. : The problem is the boss decided to outsource.

Pn. J. : But in the long term it is better that you have your own?
Pn. S. : I think we as government organization is different. When the typist became the typesetter after attending courses, she still doesn’t get promoted. It is not like in the private companies or even the universities because universities are semi-government. Here we don’t have assistant publisher or even designer.

Pn. J. : I’m sure they have it at Public Service Department?
Pn. S. : Yes they do have but we don’t have. Our typist still typist, they cannot convert into typesetter. The problem is staff and they (the management) decided to outsource...we have all the machines, a high end typesetting machines, a very good one, but we don’t have people to operate it.

Pn. J. : What about technology for online publishing?
Pn. S. : Yes, we have for example we spend many thousands to have the typesetting machine and right now we pay outsiders to do our jobs. And now I can get more papers to be published, I think we can do it. The Library can buy machine like print on demand machine so that we print colour for cover, I think if the Director into this we can do it.

(END OF SIDE A)

(SIDE B)

Pn. J. : Your boss just keep quite on the issue?
Pn. S. : Actually I don’t know, I know last time my ex-boss did discuss about having the online journal and he is no more here The new boss I have to ask.

Pn. J. : Maybe they thought online journal is inferior?
Pn. S. : I don’t know what they consider. I don’t know whether she wants or not. If you ask me it is not impossible, but I have to be very sure during the presentation, what I want and how to do it.

Pn. J. : On your part you have no problem?
Pn. S. : If the boss direct me and if the resources is there I’m sure we can. Sooner or later I think we have to do it. Right now no pressure to do it. If they ask me to do it right now I cannot do it because no staffs. If they really want it, they have to plan we have to plan.

Pn. J. : The other day I went to our friend at UPM, she said not many people buy the journal. What about here?
Pn. S. : Malaysian generally like that, the same thing our subscribers are small.

Pn. J. : Your journal is in English right?
Pn. S. : Yes. Hopefully after we got the citation from ISI we get better response from authors locally and internationally. I saw some articles come from Australia. It’s a good sign. Look like some increments in the number of articles received.

Pn. J: Ok I see outside it is getting dark. What time you go home?
Pn S: Usually at 5. We have a lot of trees so it is always dark here.

(END OF SIDE B)
Interview 8: Dr Neelam Shahab (SIRIM)

(She is the editor for the Standard and Industrial Research Institute --SIRIM Publishing Unit)

Dr Neelam: You are recording?
Pn. Jamayah : Yes, can I?
Dr. Neelam : Its ok.

J: I would like to know about your journal.
N: If you go to our website you can see our publications.

J: Yes, but only the lists and abstracts
N: No full text.

J: Do you have plan to publish online journal?
N: No online! So far no. We are not talk about that yet. Just like what we have now, print. But I receptive to your idea because its cost us a lot to print.

J: Yes, exactly.
N: Twelve thousand in here you know.

J: And you give it for free?
N: Free.

J: To?
N: All the R&D institutions in Malaysia, to our SIRIM corporate members, we have our library members and for promotional. But we have plan to sell it now.

J: If it is free better still you put it online, the whole world will know the existence.
N: So it is condition this online, how do I get to know? I have no idea, how do I get into all this. Ours is not peer review, only internal review, Malaysian review, is it ok?

J: Internal review?
N: We just send to some one to read then we publish after editing of course. I think it is not as rigorous as peer review. Actually I am a researcher but now I have to do the editing of this journal. By right, they should have additional committee, who can concentrate on doing this job, but we cannot find such a person.

J: You don't advertise the job?
N: Well we had 8 editors in-charge of newspaper but they cannot handle the journal because it is technical. Must get people specialised to handle the journal. I cannot because I'm handling big research project. They give me because I'm good at editing. Checking the English, I can tell you, that the quality of their English is poor. I have to do a lot of editing work.

J: So you think people don't write because of their English?
N: They write! Because we have to publish, but when the papers come here, I have to do sometimes major editing.

J: How is the response?
N: Very good!
J: They like to write?
N: Yes, so far, we think they are writing. When we started last time it is difficult to get articles, very bad but now people spending money in many projects like Multimedia University, and other private universities so we are expanding as well

J: You mean you get paper from these organisations?
N: Yes, but some are from internal as well. But you know we have to tell them, and always nagging for papers, the respond not so good.

J: How many researchers do you have?
N: We have 200 or 300 researchers, old generation.

J: Then where do they publish?
N: International. They publish here also, but you cannot publish the same thing twice. Once they send to other journal they cannot publish in our journal anymore. That's international policy right?

J: What you can do maybe upgrade your journal so that you can attract people to publish here?
N: Yes, maybe.

J: What facilities do you have?
N: We are under corporate division and we have printing machines. We publish material like brochures but sometimes very technical. They give it to non-technical persons and they give up. They couldn't do it, couldn't understand so they cannot make correction. So they give it to me. Even though I couldn't understand because it is not my area, but I know science so I know how it should be done.

J: Do you plan to publish online journal?
N: Everything is in our website. But it has only the abstracts not the full text. If people need it we will make a copy in CD then we will send it and it is free.

J: Do you tell that the copy is free in the web?
N. No

J: Why not?
N: If we tell people it is free then we are like the welfare department, no way. Unless they're really interested in the name of research then we will make a copy and send it to them. Then anything they want we will make copy, unless we have the extra we can give the original copy.

J: I would like to know your plan in online publishing.
N: There have been discussions whether we should go online. But they said our members are local you know. Maybe we should expand that publications committee to include outsider from international. But only the talk it is not been done.

J: Because no one really interested?
N: That's the problem, I think because I am researcher and I do the editing work. We don't have people to focus on this publication like the marketing people and so on. We just carry on what we have been doing. We mix with some education appearance at the latest cover. Maybe we should expand the member to include international viewers or advisory. But we only have one journal and it is not focus like biotech journal or medic. We publish anything and everything that related to industrial.
J: Is it difficult to get reviewers?
N: Not so because our review just internal. We don’t give the author names to the reviewer so that they don’t bias.

J: If you put it online, you can do open to the reader to give feedback.
N: Oh! You mean people can criticize the articles.

J: Yes, then the author can do correction accordingly.
S: But if you do this is it not dangerous, people can manipulate.

J: It is up to you how you interpret this system but there is this type of publication online. So you have no plan to publish online?
N: Hmmm. In terms of facilities, we have, but we must get the people specifically in the project and the idea must be justified. It is a good idea to have online journal but at this moment we are not into online publishing just yet. Because library like books like this you know still, and when we want to give our corporate members we are still to give in this form.

J: As a researcher yourself surf online?
N: Yes, True!

J: Then what about putting the information you have online. So that other people can access? If we have discussed but so far we have not decided yet because many things have to be streamlined. Decision must be made by the management. Personally I think we should go online. But like myself I cannot propose because it is not my area.

J: Do you have a list on what your researchers have done?
N: I'm not sure. I think they have, but I have no idea where. We have branches all over Malaysia, so each centre has their own publications and they keep their own databases. I heard that recently they are collecting research papers to be published. They only started recently. I have no idea where they kept the data.

J: Do they publish a lot of papers in these branches?
N: Yes a lot! For example from Japan, Germany whatever, but you have to go to each centre to check.

J: Maybe you can put all the research in the annual report?
N: We have annual reports but we don't put the list of research in there.

J: So it is difficult to check who did what?
N: Maybe you can ask the Ministry of Science or something. Coz usually, they should keep the database or something.

J: They have but very scanty and not up to date. I think the individual organization should have their own databases for their own references. Furthermore you have several branches. It should be coordinated.
N: It is true. But as I told you I'm a researcher and have a responsibility to edit a journal as 'over and above' job. I cannot focus on the database. Someone else should do it.

J: Ok I won't take more of your time. Thank you for the information.
En. Zulfadzli Mokti (SIRIM)

(He is administrator at SIRIM)

J: I just interviewed your journal editor Dr. Neelam. It was ok. You are in administration and promoting the innovation. Can I have some information on the research being done here. If the researchers don’t publish but just produce the report, what happen to the report, I mean people cannot access and use it?

Z: We get the money to do research from IRPA and the IRPA belong to the government, so we have to give back to the government. It’s up to the government whether to sell or whatever

J: As researcher it is better if you can write and publish in the journal isn’t it?

Z: Yes, article for journals will be sent to Dr. Neelam, I’m sure you have discussed about it.

J: Do you have any other publication?

Z: We only have this journal. The other one is annual report that’s all. Then if the government asked us to promote I will inform the newspapers. What happen in journal section I don’t know. Did she give you a copy?

J: You have around 700 researchers but the results based on the writing in the journal is little?

Z: Not all researchers here are doing research. Many are doing auditing. Only those who are in the research and development are doing research.

J: Do you have the number?

Z: I have to check with human resource department. I don’t think that many people in the R&D now R&T (research and technology). Some of the researchers are working in the advanced material in Kulim. In Kulim you can find more researchers there. So not all researchers here are doing research. In R&T there are focusing on research like bio-process, ceramic, plastic, advance material, machining, and cooling. Other researchers don’t do research in actual term but improving for example improve the machine that they have tested for laboratory purposes and not for selling, or produce thesis and so on.

J: Why they don’t publish whatever they have done?

Z: Maybe they cannot do that. We have to follow the ISO, we cannot tell people what we have here otherwise people may claim as theirs I mean the one that we have improved. All research results are belongs to IRPA because IRPA give the money, then it is up to them if they want to sell the product. For those researches done by joint venture with industries, the results will be given to the industries because they pay everything. They come to us because they don’t have the expertise but they have money, so the results will not be published of course. That is the story in SIRIM. The sale from the joint ventured products will be divided 50:50 between industries, universities or even between us in SIRIM or whatever arrangement they have. And if they decided to let the public know they will do that or otherwise they just keep quiet. If the sponsor like IRPA wants us to promote in the newspaper we will write to newspaper, or TV. That’s all. Others are in journal, that’s all.

J: Is research will be considered in the promotion?

Z: Yes. Publication will also be considered in the promotion. I supposed researcher have to write the things that they are allowed to reveal. Like what I said just now some of our products cannot be revealed to public. IRPA projects are allowed.

J: Are all IRPA project will be given back to the government?

Z: Yes, Unless if the government say it is ok to tell the public then we will tell. So whoever wants they have to come to SIRIM, buy the technology not the machine, we don’t sell
machines, we sell the innovation or the technology on how to make the product not the product itself. For example whoever want the technology of how to make bone china, ceramic from the bone they can buy from us. We tell them what is our expertise, the product, the machine, formulas, we will teach them, but they have to pay. Some people don’t understand, they thought we sell products we are not a factory. The researchers can write anywhere, not only in our journal.

J. : Do your annual report stated who write what and where?
Z: No.

J. : Maybe you have lists of the researches?
Z : No. Maybe the human resource department have it, but only for their file.

J. : How people would know what you have done?
Z : For technology that we have invented we have the patent and for the non-technology we have the copyright.

J. : The government had spent billions of ringgit for research and since we don’t have some sort of directory maybe we have duplication?
Z : That one maybe true, but I don’t quite understand why the government need to hide the result and let other people do the same research. I don’t understand but I have 27 research products that can be publicized or promoted anytime. But I have problem to create the promotion. Sometimes the product is not the end product, only the formulation. If I tell the public about the formula they won’t understand. If the result is the product that we can touch then people will understand and I will put it in the mass media for promotion.

J. : You put the result in the mass media only?
Z : Some of the researches are for small and medium industries. For example there is a formula for rubber tapper to make the latex harden faster. This kind of research I have to tell to small and medium industry. So I will use the media. Other research results maybe disseminated by other media such as journals or present them in the conferences. But to disseminate all the research products is not my jurisdiction. Maybe the journal can help. Actually I don’t know what did they publish in the journal. Do you know?

J. : Research results of SIRIM.
Z : Do they get the money?

J. : The editor in-charge said it is difficult to get materials and very heavily editing needed.
Z : If I asked them why they do such a thing, I mean writing in the journal. Maybe they want to make the layman difficult to understand.

J. : SIRIM should publish journal alright. But for the laymen you can simplify the results and put them in the mass media.
Z : I told them many times, that people from tv and newspaper want some news from us, but right now there is no products, so cannot tell the media anything, only the formulas, people won’t understand. And frankly speaking this is the problem with SIRIM.

J. : Or else maybe you should put all the results online?
Z : I think some one in SIRIM is in-charge of this online project but I don’t know what stage it is now, I just don’t know.

J. : It is such a waste because people or public don’t get access to the information.
Z : I have 27 products or more. These are IRPA’s.

J. : How much do you get for research in a year?
Z: I don't know exactly, maybe hundreds million. Maybe they have the figure in these one of the publications. It's a project reports. Some of the projects we won golds in Geneva, and some of the titles here I have already put it in the newspaper.

J. : En. Zul, thank you for your time.
Interview 9: Rosfar (Interviewee B)

(A lecturer attached to University Press of the National University Malaysia--UKM)

J: I heard that you did a research in online journal in 2000?
R: Yes, it is for my Master thesis. I did on attitude of the academics towards online journals in general.

J- Can I have and quote your findings?
R- Sure you can.

J- How was the findings?
R- They don’t mind and they don’t bother. As long as they publish their articles they don’t quite mind. But they don’t like to publish in online because many are not refereed.

J- Is it locals or overseas?
R: Overseas. I don’t know any local online journals. How many of our academics do reads. Not many involve in reading seriously. They may find some information in online journals and they use it. But do they write to these journals’ editors? Maybe one or two persons, for example this one person, Ghafar Ismail. His articles were highly accessed by readers you know.

J- Is this person publish online?
R: No. He published in the print journal and considered as most accessed article, which mean that his article is good. Our academics don’t publish much but their articles are among the most accessed though.

J- But it is still in the form of print?
R: People don’t really trust the online publishing because many of the issues in online publishing are still not settle yet. People are promoting the online journal like what Dr Zainab has done. She make online version of her print journal. That means she is not quite sure that people will accept online only journal. So she put the parellel version because she knows computer and how to put the print version online. Maybe she offered discounted price but latter she will charge more expensive. Everybody must have the IT skills in online publishing. You have to call for papers electronically, and I as writer will use e-mail to send the papers. People must know how to use computer at least the basic. We don’t work as a team like Kluwer, Johns Hopkins and others. They do it in bigger scale.

J- Is that mean our organization don’t really work towards having online publication?
R: No. Not in Malaysia. Do you know who do it? In the West such as Johns Hopkins for example they have big faculties involving many engineers, computer experts, publishers, editors, writers, and authors. They work as a team, not only publishing the existing online journal and digitizing journals that had been published 10 or 20 years ago as well. They have a kind of report like how many journals, how many thousand pages or how many million words being digitized. We don’t have that.

J- Why do you think?
R: We don’t have that kind of tradition yet. We don’t have any tradition on hardcopy, or even library. No one strong enough to start what the West have now. Everybody is scared and unsure. It is not really the online thing. Like when the government did the websites for all the Ministries last time. They cannot have done it without specific person that would in-charge the contents. That’s why all the government’s websites cannot survives. Technical person can just link to where ever they want or put the sound but you must have an author or at least editor. These people can create materials for the websites. Some people just put the Minister’ speeches in the websites, how many speeches you can have to make your websites up to date?)
That's why many government's websites looked unfinished because they don't have editorial people, editorial team. The scholarly journal needs these experts, and we don't have it. How to go online? We do have expert in computer maybe but that's not enough. We need the articles, and people that expert in preparing articles, that we don't have.

J- Do you think people don't write? We have many researches you know.
R- People have many choices. There are many journals in their field overseas, so they send there.

J- So they send outside?
R- Yes, sure. Otherwise how can they get promoted. We have many professors here, almost 150 of them. I don't think they get promoted without publication of course they have publications. It is just where do they publish the articles, local or overseas. One of the reasons is their attitude not look very highly at local journals. They regard very highly on established journals overseas. And the university regulation is also contribute by not giving high credits to local journals, to the local universities, and this will kill the tradition of writing and publishing in local journals.

J - So our journals will cannot survive?
R- Something like that. But if you analyse some of online journals in the West are not very success isn't it? Many stories we heard that they are collapsed. These things are very fast. They change very fast and difficult to keep track. Maybe our people cannot follow them, I mean in term of technical and materials. Fast and varied. And the attitude towards online are varied too. Some people like it some like printed books more, easier.

J- We put online because people can access better.
R- The problem in Malaysia is the universities don't have written policies whether they accepted or not the online publishing. The policy is not clear. Another thing is we don't have professionals to manage the online publishing we don't have professional editors. We cannot do it without professionals You cannot just do it abruptly. When you decided to start online project you must maintain for 24 hours for maybe 20 years, and it is not cheap. Who will sponsor, who is going to pay. Library can link whenever people want to access but they don't want to keep it. People can access as long as the library pay. Let say tomorrow library decided not to pay what will happen? We don't have experts, we don't develop jobs in publishing no training in publishing for examples have you heard training to develop databases in the big scale. No.

J- What is the function of MAPIM (Malaysia Scholarly Publishing Council) in this case?
R- This IS not its duty, it is publishers duty. No commercials publishers in this Council. I don't see any development in MAPIM. After all they are just giving the cooperation because they cannot decide or dictate what to do to its the members. Last time they have union catalogue, now no more. This union catalog is important because people will know what has been published. One more thing we should have index abstracts for all journals in Malaysia, but we don't have it. We don't have many scholarly journals are we? What I see in Malaysia is we don't have culture or tradition in publishing like in the West.

J- I agree because in my research I need this information, but none?
R- Yes. Just indexed what we have published as service to our own people. That's enough. Then if other people want it we can give and maybe they want to subscribe to our journals after reading the abstracts.

J- That's why people cannot find our journals.
R- They are not visible in other people' services. It doesn't matter if our journals are cheaper, does it? We are sure that our journals have indigenous value such as in Malay studies, or history. I am sure it has very high indigenous value. Come to think of it I don't know how
researchers in Leiden (Lieden University) or SOAS (School of Oriental and African Studies, University of London) get their research materials. We don’t have a comprehensive indexes. What we have is patches here and there.

J- Here in UKM do you have list of researchers published where?
R- I think it is in their individual websites because I don’t see any of this anywhere. Last time UKM publisher did published the ten years publications by UKM staffs. After that Mohd Salleh and than Sazali did the list. That’s what I told you it is not a comprehensive work. It is up to people ininitiative. We must have union index or catalogue.

J- MAPIM cannot help?
R- MAPIM is ad hoc body. It doesn’t have structure to do the job always change. Like now the persons who attend the meetings is DVC and the DVC always ask the representative to attend. In this kind of meeting what can you achieved. It is half-hearted body. So you can see clearly. At the end of the day everything gone, finished, nothing happen. Our tradition is not important we don’t have tradition.

J- You mean writing and sharing tradition?
R- The information we get is for our own use and we are stingy. We won’t give to other people what we know. We are worried and scared if other people get the information. You see our Archive compare to the West. Our Archive look like doesn’t encourage us to access the knowledge they have, reluctant to give the materials

J- Why is that?
R- All the materials are confidentials and secrets. They never encourage people to do research and use the materials. I have to wait for days to get the materials. It is very different from overseas’ Archives. And you see that the collection of our Archive is not much and they are stingy to give out to people. I’m not surprise they are behaving like that if the collections are large

J- Why are they so worried?
R- You tell me. For all you know all the materials are copied from Leiden or wherever and they are so stingy of these materials. I don’t understand.

J – We are not doing a secret research are we?
R- Only a research for a thesis and then when it is finish nothing will happen.

J- Is it our attitude not to share knowledge?
R- We don’t have reading tradition, no writing tradition but suddenly we want to become developed country. Developed country must have population that love to read, write, knowledgeable. We don’t copy the White people’ attitude and yet all of sudden we want a developed country in few years time. To become a developed country we need civilization of hundreds or thousands years.

J- Do you think this top-down policy will fail?
R- We cannot be a developed country base on “ready-made” concept! People at the top don’t know exactly what they want. They just are parroting their bosses’ bosses. If you don’t read you cannot become a developed country. Singapore became a developed country because they have top system of schooling. Their school is among the best in the world. Their schools, their education system, their classrooms, their curriculums, and facilities are tip-top then you can be a developed country. In our case, we want to have smart schools but we have a lot of problems with cracks buildings, no computers and many other problems. How are we going to become a developed nation?

J- Is it because of the language? We don’t read, we don’t write and so on.
R- If we think because of lacking in English that we don't write, why not write in Malay? We don't have either. Our Malay journals are going to die and actually we don't have tradition. That's all I can see. We don't go for high tradition like writing, reading and publishing. We only care for trivial things like how many homes have computer, changing the school system to another not-well-planned system. All are wasted. I cannot say much about this because it is political, and I am sure you know.

J- Yes. Anyway thank you for your time. Hope you can write and publish more.
Interview 10: Prof. Dr. Zainab Awang Ngah

(Dean of Computer Science and Information Technology University of Malaya)

(SIDE A)

Pn. Jamayah : you as an editor or ...
Prof. Zainab : I'm the executive editor for journals, you clicked and then you see our... no its online the journals are hybrid at the moment meaning we have the print version as well as the electronic version. The print version we have 500 now we are reducing it to just about 300 to distributing it. So far now there are 70 national and international subscribers. But since E-journals worked well we published 2 issues a year so now we have 6 issues from 2000. 2004 will be up soon. It’s twice a year July and December. Basically we have to make the journal current that is very important for me. That’s mean July 2004 must come in July 2004, we’re never late and because of that we get indexed by the international indexing agent. Usually journal will be indexed by the indexing database which are of international. For example you have Educational Journal that maybe indexed by Eric, do you use Eric? So in the library of information science the database that indexed the library journals are library literature of US based and UK based. So if you get your journal indexed by these two databases then anybody who is doing research in the library or information sciences will automatically get into your journal. Why it is important? Because that will increase the visibility of the authors. The trouble with Malaysian journals is that they are not current, that’s one thing and they liked to published in mixed language now indexing agencies don’t like this because the don’t have the expertise to translate your Malay language papers to English abstract and also as far as science research, we are not yet in the forefront. We are fussy with things like this then we never go international. I mean they’ll never bother to indexed our journal anyway, I think our journals’ editors and publisher must be conscious in wanting to be indexed by these agencies. In Malaysia this is very rare. When they published a journal they said this is national journal, and when they want to go for evaluation (promotion) they published in other journals that is international. But in this world there are three levels of journal you know. First that is so high profile so it has high impact ok, this would be indexed by the journal citation index this is very few out of thousands of journals in this world, maybe there are only for few thousand. The second level are those who got indexes in the databases because they get visibility also. The third level is of course the national one, you know the national one only known by the people of the country. So here is no visibility and also when they do studies let say the practicality of an institution by for example the Asia Week or whatever, they’ll looked at their publications in this visible indexing body, so that’s why most of local universities don’t get fair deal because they don’t bother to get their journals in there. We have to play their game you see. That’s why for both journals in this faculty Malaysian journal of faculty science have to be very current and must be research based and refereed, internationally refereed. At the initial stage we do have problems where we find that we are not up to the standard. Sometimes when they submit articles for the journals they don’t bother to check what is required in the articles to be submitted for the journals. You have to look because each journal have their own editorial policies. They want you to refer to APA style, or MLA style or IEEE style so you have to follow. In the first round when the Malaysian authors send the articles to journals and expected the editor to change, no they don’t change for you and that’s why the rejection rate is very high. If I were them I’ll reject the article totally I don’t want to do the trivial job for them. So articles must be authoritative if you want to publish in my journal and you have to follow my rules and regulations so you should look again at our format to follow suit. Then, only I accept and then I will send to referee for reviewing. Our E-journal is truly e. Meaning we don’t only published the journal and uploaded electronically and you can search. Most E-journal in Malaysia so far will only appear when you click on the journal then you will see the author and the title, and the title would be hyper link and then you click and then you see either abstract or the journal content itself. Our E-journal have the search engine, when you search under my name or anybody else it would tell you all the articles for other
issues as well, it'll list it nicely and you can look at it. That's the different from other journals in Malaysia now. We have our own search engine, example you have 2 journals but you parked it in one house and that house we call EJUM, electronic journal of university.

J. : What is the function of EJUM?
Z. : EJUM is the host to our journals, but we have make the architecture in such a way that EJUM can host to any other journals in Malaysia. We have already tried to get people to come to us, to park to us. We are so willing to give training and people don’t need to send officers just a clerk will do and we’ll tell how to upload and use the server here. You don’t have to have anything except connection to Internet you just need to know how to upload it and send it that’s it you don’t have to know the technicality. But the problem is people or the publishers are scared. I don’t know why. To them it’s difficult. It’s not. So far the uploading part of both the journals were done by clerk we’ve made it easy for the user. But the trouble with Malaysian editors or publishers is they are scared. I don’t know why they don’t want to park with us and use these facilities, for me I feel that this is my contribution to UM and Malaysia before I retire. They can put their contents there and I can train them. But the unique feature of EJUM is they are refereed journals. Meaning that they were established for academic journals, scholarly not popular journal because all the processes like the referring all done electronically. All the referees will be asked to log in and then when the author wants to contribute they’ll log in to the system and upload through the system not through the attached mail or anything. When the article is uploaded the editorial board members will be alerted immediately so we go into the system we look at the article and we immediately assign the reviewer, when we click on the reviewer’ names there are 2 names, one foreign, one local appear immediately and we will send file and notification goes to reviewers automatically. So, it’s truly e, no sending text or attachment. Then we will get the report, I’ll know how many people assessing the journal. Because so far it is still free, after all we are fortunate to be in this faculty, we have the facilities, we don’t charge people anything but I think we have started to build our reputation because now you can see that our journals is getting more and more articles from overseas. It is shows that the journals go international. It is no more depending on the local authors’ contribution. Latter the local authors have to compete. If they’re not good enough they can’t publish in the journal because, we don’t want to have too many articles per issue. You have to push your article in other issues. It has to be current, so far from 1994-2004 is stable.

J. : Your journal is parallel not online-only?
Z. : Yes, and the print version usually comes out slower then e-version, e-version first usually. I tell you it is so easy if everything has been edited only we start uploading so it means the articles are clean from grammatical errors.

J. : You do the online journal for free and who is your subscribers for the print version?
Z. : So far our subscribers still subscribe and we are still making money, the printing cost is cheap about RM3000 for 300 copies and the server is there still runs nicely. Publishing in online is easy just send the boy to us and we will train them. This is the publishing part, the editorial process of actual editing the article and cleaning up the grammar and everything must be done by the editorial board. The process is equivalent to printing process instead of setting up printer you start to upload. In the uploading process you don’t need technical person.

J. : Do you involved in editorial of articles?
Z. : In the academia, it’s a prestigious job. If in your CV stated that you are an editor of journal, you are in better position for promotion than if you don’t have any. Because you’ll find out later if your journal becomes reputable then you will also get invited to sit in the editorial board. It is not necessary for me to make money but the most important is to make reputation. We don’t charge the online version but we still make money from the print version because of the subscribers and then the foreign subscribers pay in US dollar.
J. Do you have problem in getting manuscript?
Z. So far no. A lot of articles are coming from India, Pakistan, Africa, ok at least we are first in Asian. E-journal especially in my field in Asia Pacific is very few. Since 1994 we have been current, and I insist English because I have goal, I want it to be indexed by this database. If I want that I have to play their game for example I cannot be late I must be current.

J. You don't get many from locals?
Z. I don't think it is important to locals I don't know about Malaysian but we get lots of foreign articles. Publishing online is very fast and I like it because it is like working using ISO. For example when you send articles you will get acknowledgement receipt within 3 days, and you'll know whether your article is considered for the publication or not within a month. Usually this time frame is true and the reviewing, refereeing and editing all done online. They will send copies to you as an author to look at the edited version. Every word or sentence or structure that has been edited they highlighted it somehow in colours. Then whether you accept or reject... that's wonderful I think that would be the future for people who want to publish in online. Many people in Malaysia are talking about content and development of the journals. We are not there yet. That's what we are lacking. I've presented my system to all scholarly journals but the question they are asking whether you're making money. To me academic journal never make money don't, blind yourself with making money we don't because our subscribers very little. Unless, Dewan Bahasa others don't make money so, not all journal from abroad are making money. So why are we talking about this? If we have the system and a lot of academic journals start parking there we will become rich because more visible and people will be attracted. One thing about EJUM is that even the journals are different the search engine is the same we have common search engine like some journals in Malaysia they use different search engine for different journals. You can specify, that you want to search certain journal or all the journals we have. So the flexibility is there. Sometimes people have phobia and worried about plagiarism and loose the copyright. I think Malaysian should not worry about that unless you're doing so important research like nuclear research or whatever. We said that it is easy for people to plagiarises if they go to library and xerox (photocopy) the whole article they are plagiarising also. It is back to square one, doesn't solve the problem at all to me the main issue for EJUM or any journal for that matter is I want it to be disseminated as far as possible to the user, and I want the user to retrieve just as fast so that if there are articles that they can use in their research they can use it. The usage of article in the journal will create more impact for the article that I carry instead stays on the shelves and nobody used it.

J. So what do you suggest to overcome this problem?
Z. You know, for example like in some university in UK, the thesis you can borrow back home so what is the problem? This is the mindset. To me I will never copy the whole thesis maybe I read it, what are so afraid of people, we don’t trust people. That’s the thing that prevent us from going further because I remember Virginia Tech start their digital library and then they ask for volunteers to submit their thesis. If you ask Malaysian they will ask a lot of questions on copyright and everything. You see that the e-form is the same as in the print. If people want to copy they still can, but if they copy from the electronic form to check for plagiarism is easier. The thing is you want the information to be used by people otherwise what’s the point publishing That’s people problem not technical.

J. Can we measure the output since input will be based on the amount of money given to the researches?
Z. It should be come from central I mean the body who given the money. You must request the output for example in the form of softcopy or anything that being published and people would do so. Its just there’s no directive no enforcement. So anything that is published they only need reports from us. They have our names and they can link to the publications then
straightaway to the digital library, just upload. It is easier if our research results publish online. Otherwise they need copies. In online there's no problem to know the output or anything. From this they can measure that for example you were given RM 1 million but why only one publication for example. I think output is very important you must measure output.

J. : They said they published but in proceedings or whatever and we cannot access, no body can access the information, that's the problem isn’t it?

Z. : Yes. Government has the right to ask for the results because they are the one who funded the project by right the researcher should submit. Now they are submitting probably I don't know whether they do or not submitted the print copy. That’s mean the government should inform in what form that they want to submit the report because maybe they don’t want to let public or certain people to know the results. I think the security measure should be thought at later stage but the most important thing is that you must have some sort of repository so people will know what research had been done and results

J. : Now we don’t have?

Z. : Right now we don’t monitor the output. I have thought long time ago that we should have repository for research output. So far in Malaysia we only measure the input based on the value of the grants. But where is the result? In the annual report of IRPA? They don’t have the list of publications there.

J. : People do research but do they publish?

Z. : They publish and present paper but that’s all, we don’t know we cannot make any judgement because we don’t know. The problem here is we don’t have the list of publications based on the research grants that they obtained. If they produce something and get the patent we maybe don’t know because no list for patented research products either. For articles regardless in conferences or in the e-journal should be in the repository.

J. : Right now your online journal is free. Are you planning to charge?

Z. : I don’t think about commercialization yet. The most important is I want to be visible that’s very important. Later on, probably maybe we will charge say in 5 years time. Now I just see that the archives issues are popular. Usually the journals become very valuable when they are old now we have nearly 10 years so when we are 15, 20 years maybe we will charge when we have plenty of articles and stable. Right now we don’t have to show off I mean we want our research results to be known not only in Malaysia but abroad as well. Its not like a lot of journals are nicely produced but nobody knows about it, then what for?

J. : What is the future for online journal?

Z. : We want to published online but the trouble with us is that we don’t know whether the person who takes over has the same passion as I have so we don’t know. That’s why we have to inculcate the idea to the younger generation. Like in my case I have to tell them that we cannot be late because I have a series of journals. You cannot be late. If the due date is July you must publish in July or early August and we must send to the indexing agent then only they know that our journal has the credibility or not. If not why bother publish journals. It IS not they don’t want to cover Asian journals but the problem is we always late, the publisher late in giving feedback to authors, the authors are fed up waiting to know whether the paper can be publish or not. Things like that prevent authors from sending to you. It’s not the technology problem at all it is people problem you have to tackle the people issue first. I have been telling people in Malaysia that they can park their online journal in our EJUM Many times but they don’t want to use the service.

J. : They don’t understand the concept?

Z. : They have to understand that the copyright and the responsibility and the power still lies in them. I just give them the space to park that’s all. The editorial board, editing process, what do they want to write and to whom they write is their responsibility. They just give us the
information and we will make it in such a way the information is managed. We give the facility to park their journal. I think they are mistaken that they thought if they park their journal here I want the money. No, I don't want a single cent. We are lucky because we are housed here like this, like Virginia Tech have almost 15 years since they started publishing e-thesis. Now it has gone so big initially only Virginia Tech later joined by other university libraries, and faculties. Now you find Australia, and New Zealand are joining them. Later on when they go rich, they'll charge. If you give so much, why don't you make some money out of it. The trouble is we can only get rich when we pull ourself. For example Sun Technology Journal go online and people all over the world can use the information very easily. Then they start charging

(END OF SIDE A)

(SIDE B)

Z. : When we become big we will charge but not now.

J. : But they don't think that way...
Z. : They don't think far that's why they become like that, or they can always say that we are show off that's how it happen.

J. : What do you think about open archives?
Z. : Open archives initiatives, yes this one is wider, people can read because it is an open access and get the information for free. But why do you want to put your articles there if you can put here in Malaysia.

J. : Maybe Malaysian researchers don't know where shall they publish?
Z. : If they are trained they will know where are their core journals. You would know in any discipline the types of the journals that cover the field—some low average, some 'just enough' kind of thing. Journals just like student performances they have ratings. So we target for ‘just enough’ and then we go for the medium one and when we have more experience go for high flyer one. That's what I learn. The high flying journal we already missed because this journal I cannot buy because it is expensive. That's why in our case we must work together. No collaboration you cannot cover your disciplme well but it depend on the area If your area can go international, maybe you can publish abroad and maybe people will still read.

J. : Researchers are being told to publish at international journal.
Z. : This journal of mine is indexed by the indexing agent, nobody dare to say that we are inferior. You go to language journal, they have many things to cover. It is difficult to get publish by this kind of journal because so many subjects and everybody can go there so you have to try something that appeal to everybody. You have to build up the journal first everybody must support if not what for you publish. That attitude we don't have is no pride to our own publications. And when you published in the journal it must be the best quality, don't send shoddy article and expect the editor to polish it up for you.

J. : I should come to you first and so can ask other university presses why don't they publish in your journal?
Z. : Maybe they don't even know that we are exist. You ask them do they know any E-journal in Malaysia.

(END OF SIDE B)
Interview 11: En. Khalid Mazlan (UTM)

(Head of University of Technology Malaysia Press)

(SIDE A)

En. Khalid: Actually last time it was so difficult to get articles. At first I am really worried because with one journal I feel I 'm going to die to get the articles, and now we change the policy to have 6 series When we decided to have 6 instead of one we have to go all out to ensure the journal are published. We have June and December issues, usually we manage to publish early July and early January. It has been 4 years.

Pn. Jamayah: So you have no problem in getting articles?
K. : I have to monitor. I have to ask the head of every journal' editorial board, I have to move them especially if the articles at editorial level. I have to ask them all the time.

J. : Ok, actually I come here to get some information about online journal publishing in your university.
K. : If I switch on the computer we can see the number of journals we have. Every year we have the report on writing activities statistics and the journals in this university. How many articles in English and how many in Malay. We have this information for the past 2 years. Actually faculties have their own journals so they have their own problem to publish. These journals are still considered in the promotion exercise. Our journal of technology is considered national and Will be counted In the promotIon exercise as well so it has value. Some of the lecturers want to put their articles in their own faculty journal. So in this case the reserchers here have choices whether to publish in our journal publish by university press or their own faculty journals.

J. : Which journal have more points for promotIon?
K. : I think the faculty journal don’t have high value compare to us, but I don’t have much information Some of them barely survive. So I think they don’t have much choice except to send to the journal that can be published on time, our journal of technology. Some of them may send to outside journal local or overseas. But for some of our journal of technology we have enough articles for the next two issues, about 20 articles. Some of the journals are difficult to get articles depending on the area. But so far we managed and we can publish on time.

J. : What area that is difficult to get articles?
K. : Social science So far science and environmental fields are easy to get articles

J. : Do you get many articles from outside?
K. : Yes, plenty From Malaysian organizations and universities. We get many foreign articles from third world countries because they have connection with us meaning they were our students and when they go back to their countries they still publish in our journals such as Bangladesh and others.

J. : What language do you use?
K. : Bilingual.

J. : Do you have online journal?
K. : Actually it is in our planning that we want to develop this information system SMPA. We discuss this because we can see that we need it in term of the press activities like monitoring and processing the original manuscripts and translation. For online journal, the library has the software because library has online journal.
J.: What I mean is your own online journal not the online journal the library subscribes
K.: Yes. The library has the system. We have ask the computer centre to develop the SMPA
for us and we already get the budget about RM400,000 but until now nothing is happening.

J.: What is SMPA?
plan to monitor all lecturers’ activities in publishing by just clicking the keyboard. That’s the
plan which until now still a plan, nothing happen

J.: Who will do the online journal?
K.: Library because they have the system. What I want is to develop the monitoring system
for all publications publish by our lecturers. And then we connect with the online journal
develop by library.

J.: You mean the library will digitize the print version?
K.: Yes, They put the print version online.

J.: What about online-only?
K.: We don’t have plan for this kind of publication. What we have in mind is digitize the
print version so that people can access online. Maybe we will charge to access the articles.
That’s is under library. Then I in the Press want to develop the monitoring system so that we
can have some sort of list of publications by our lecturers. But I must get Computer Centre to
help because I cannot do it on my own. The information is at the faculty level, not centralise.
Sometimes the Ministries ask for the publications for award purposes or people from abroad
sometimes ask the publication to check our status and we don’t have it. The list in the hard
copy is not comprehensive and not up-to-date.

J: Ok. Thank you for the information.
Interview 12: Associate Prof. Dr. Mohd. Amin Embi

(A lecturer in the Faculty of Education of National University of Malaysia. Founder of VirTEC and iJeLLT online journals)

(SIDE A) (TAPE 1)

Pn Jamayah: Good morning. You are teaching in this faculty but I heard that you publish online journal

Dr. Amin: Yes because I like computer and I want to contribute. Publishing is academic work but I don't know what is the tradition of the university still uphold. Maybe publishing in the print journal and they don't want to change.

J: The mindset?
A.: Have you survey other universities? I think Hasrom (UKM Press) is more traditional. He said no point publishing in online journal because the print one that they have cannot go far. I think they should change the guideline, like what I saw some journal publish by UKM. They need quite a lot of money to maintain because they want them to be published. If they change to online they say it is costly. You see I have seen overseas there are many established journals go online that means they get a wider audience.

J.: Maybe our paradigm?
A.: I don't see the potential of keeping the printed journal.

J.: I went to see the UKM Press and they say that they print 300 copies and still cannot sell. She is just coordinator for faculty's journals. She has no control.
A.: They just want to maintain that's all. More reason I think they should go online, because the journals can be accessed by many academics. When they see the articles through the search engine they can use it, it's more useful. Like my journal, which I do on my own. Basically it is in the server. My area is TESL but I like computers but I am not technical person. In 2001 we get a grant from UNESCO and my proposal is on virtual teaching education centre.

J.: Then you get VirTEC journal?
A.: Yes, so when I do the research I was thinking to established an online journal. Do you know Dr. Sidek Aziz, from physic UPM? He helped us to developed a platform and we launched the first journal.

J.: Do you have the print version?
A.: It was my first attempt so it was launched by the minister we were very proud this was Malaysia's 1st online education journal and it is refereed.

J.: Online-only?
A.: At that time it was online only. But when come UKM promotion exercise this online journal of mine was not recognised. So the contributors were puzzle why this is happen because during the launching we had editorial board from few countries, UK, USA because It was UNESCO' project. So I said in that case I will print for 100 copies and the authors have to buy for promotion purposes. So 1st, 2nd issues I have the print version, a limited copies to help the contributors get the hard copy for promotion purposes. Not every one knows that we have the print version. Usually Ph.D students from USM, UPM, UKM will buy. We have no problem to print. We publish twice a year and when come
the third issue we face server problem. So I have to publish parallel because the server has given me so much problems. Now I have to think other option. Have you heard about Karya Net.

J.: Yes.
A: Karya Net did a presentation and offers me how to solve this server problem.

J : Karya Net in Malay isn’t it?
A.: Yes, They joint-venture with Dewan Bahasa. They said the online part of VirTEC journal can be published with Karya Net. The past 2 issues people cannot access because server problem. We still maintain the journal and now we get some overseas editors so many people are like it. So I have no problem in getting articles. After all this is my field, I create the platform to teach and learn in TESL. We have IRPA project with dean of Education Faculty UPM and we developed the search engine. Dr. Sidek developed the search engine. But the editors cannot get accessed. So whenever I’ve finish editing the articles I have to give to the UPM Faculty of Education to be uploaded. This kind of work arrangement made the job not smooth, a lot of interruptions or sometimes the server down and I cannot access. So we created an engine so that editor don’t need to know the technical thing, very simple and he can manage his journal, to delete, put in archive or whatever. With half an hour training he can run this journal. But it has not launch yet.

J. : How about the referee?
A.: I don’t know yet because it is still under construction. The journal has not been launched yet. So I said we are doing this for people why don’t we venture into something so we started our own ‘internet journal of e-language learning and teaching’.

J. : Solely UKM is it?
A: No, it is a national journal. I wanted to make a national one. It started like an SIG group but at national level. So this journal is fully online, this is our 1st issue we had conference on English language teaching, it’s called Internet Journal of e-language Learning and Teaching (IJeLLT). Dedicated to the use of electronic things in teaching and learning, and we intend to publish twice a year.

J.: This one journal is just started?
A.: Yes, January 2001 twice a year January and July. But again there are some issues. This journal is published by SIG and some of my project I got my own server, so basically the server is here. People are making noise and talk about who own the server and computers and all that. There are 4 of us who work for the journal and there are people who raise the issue of ownership of the computers.

J.: This is your own innitiative?
A: Yes.

J. . and the facilities?
A: I got it from my own projects

J.: UNESCO?
A: The UNESCO project is with UPM now. There is one research where I got the L-track server. Actually it belongs to UKM but I use it for this IJeLLT journal. People start asking when they see in the editorial board only my name from education faculty UKM. They ask me why did I use the ‘UKM server’ for publishing this journal. So I have a meeting with other members in the SIG why not we just go for commercial server. But I was thinking if I don’t attach with the institution the value would be lost. When I use this server I use UKM domain, and when people make noise I feel
hurt and confuse. For the time being I just use it until people get very noisy then I will change the domain.

J: Maybe if you put the dean in the editorial board, things will change?
A: I think maybe, that’s what I am trying to do. There are many people in TESL in this faculty but person who really into the use of electronic in language teaching and learning is me alone. This is very specific. So why should I put other people not in the area, they won’t be able to know.

J: But to cover the activity...
A: Yes I’m thinking.

J: This online journal is free or you charge?
A: At the moment it is free. Anyone can access. Basically in the main menu it contain submission guideline, editorial board, so the editorial board I make it national and the editor and I do the work. We have people from UPM, USM, UIA, UTM, and UiTM. The technical editor will create the search engine and after that we just go in

(END OF SIDE A TAPE 1)

(SIDE B TAPE 1)

A: I put all the deans in the editorial board because they already have the name, but the actual work is done by us. In fact Datuk (UKM VC) said that I should put my name as editor because he already get his professorship. Working with this bunch of old men sometimes very difficult because they are not as open like us. When we run the journal I, Ramli and Zahzan thought how to expand the journal. We have experience with VirTEC where we have people from UTM, UKM and UPM and also from England we had international editorial people. So we tell Datuk and we just communicate through e-mail to these people. Only the final session we will sit together those from Klang Valley and we go through the articles. Based on the past experience I get younger and aggressive people for iJeLLT. Now I am working on the second issue of iJeLLT. We communicate a lot through e-mail. I am the chief editor for IJeLLT and Nurlizan is the executive editor. This is a refereed journal.

J: Who select the reviewers?
A: Basically we got a list of expertise in this field so we met about once a month and we discuss about the articles, and then Nurlizan will send to the reviewers, so far ok. We aren’t professional editors, we sort of venturing into something but we wanted to have a refereed online journal. Our aim is to provide the articles for the teachers out there. All this articles are research based. We don’t want to publish just for sake of promotion, what can we achieve by that?

J: Some people are concern since they said they don’t get paid so they need some sort of reward.
A: I know 3 or 4 people interviewed for associate professor use the articles publish in this journal. The university doesn’t question. I know Latif Samian, Siti Rohaya, Khairul Anuwar, Zuriah just get their AP.

J: Do you still continue with VirTEC?
A: Yes, it is just I’m thinking how to make sure people can access online. Luckily when I started I publish parallel, so the journal is continued. If not I have to stop publishing whenever I have server problem.

J: What is the problem?
A: I think because of the hard disk. 1st and 2nd issues were ok. Now the 4th and 5th issues always down. When we repair then in a short time it will down again. I have to find ways how to make the online version can be continued.

J.: This UNESCO fund is one off or you will get some more?
A: Only one time for us to develop Virtual Teacher Education Centre, so once the virtual centre set up the money has finished. I just continue. I'm not the dean otherwise I can do something if dean took up the Centre but I just continue.

J.: Not many people can understand publishing activity?
A: People know. Like UTM, UKM, USM, UPM, they send their people here to do the job. But is is a taxing work but I can appreciate this online journal. I have this experience and I won't send my articles to University Press anymore, sorry. I always call them when to review and they say they have already sent it. This traditional way of publishing is very slow. Last time I have few articles and I want to apply for promotion I have to give a letter then only I get the first galley from them.

J.: Now you have your own 2 journals
A: Yes This one iJeLLT I'm the chief editor, so I just tell them and make sure everything in order. We are 10 of us about my age all working but spend time to publish this journal on voluntary basis.

J.: How do you get articles?
A: So far we had, had meetings and discuss the strategies. During the launching we did promote with brochures. We are also in the midst of preparing a proper brochure because our members mostly from universities, so I have to print more and when our staffs go overseas for meeting or whatever we will give it to them. One more thing we also write to number of directories in the Internet and I think by now TESL worldwide know our existence. 3 or 4 faculties in Malaysia told us that they include us in their listing. So far we haven't got from overseas.

J.: So you have no problem?
A: No problem. For VirTEC journal I get 14-15 articles or more for an issue.

J.: How many you put in iJeLLT?
A: We just put 6 or 7 only.

J.: If you cannot get?
A: I must get

J.: Maybe you will delay?
A: Maybe but we work hard. If delay it won't be that late let say for November issue we may delay until December one month late. That's why people like to send.

J.: Authors like to contribute?
A: Yes.

J.: What about reviewers?
A: They have no problem to review and deliver on time. You see when I get the reviewers I had mixed of old professor and the younger ones, the younger ones are more receptive. If they take their time and sit they can do it fast. So why should I waste my time getting the old and slow.

J.: That mean if you don't get on time you will send to somebody else?
A.: Yes, because we have already discussed with our member. Let say we already have 6 articles but we don't just publish whatever number we have. We want to have some standard. So we have to be aggressive. Let say when we receive articles from somebody, I always tell them please encourage your colleague of your university to write in, our editor and reviewer also did the same, it is our initiative.

J.: It is your strategy and you have the media to help.
A.: Yes.

J.: Where do you get the budget?
A.: At the moment our own.

J.: What is your plan in future.
A.: When the Karya Net come and agree to work with us I don't have to think about budget. They say that when people buy our journal we will get some percentage. But we haven't discussed thoroughly. Right now I have to make sure at least half of my journal sold so that I can use the money for the next issue. With Karya Net I don't have to print. If people want hard copy we can print on demand. But we have not decided on the pricing yet. This is one alternative and I have to discuss with the editorial board.

J.: When you use Karya Net don't you jeopardise the credibility of the journal?
A.: Karya Net just provide the technology. They sell DBP books because Karya Net is the commercial wing of DBP. Like our journal, the editorial part will be done by us and I heard the presentation is quite good.

J.: Do you still have to maintain your server here?
A.: Yes, because if people still want the hard copy we can print on-demand from here. However, it is still in our mind. But we are thinking that since we have the online version people can download. We are thinking how to maintain our budget because if we are going to charge through Karya Net, people will question who own the journal and if the journal had use UKM money, the money we get from selling should go back to UKM. It is a bit complicated to make people understand. So at the moment we want to make the journal as SIG (special interest group) journal. I have seen in the West they have journals like this one where people have to pay when they access and they are peer-reviewed journals, journal in language learning and technology. They are fully online but very rigorous. So if people can do such thing why can't we do it? This journal is attached with one university and it has editors but I assume it is partly sponsored by association of technology meaning the society has sponsor the journal.

J.: Your journal is free and you get the budget from research. How long can you continue like this because later on you might need more budget? Is university recognised and therefore willing to sponsor?
A.: So far it has officially launched by the VC that's all. I don't think Hasrom (person in-charge of UKM Press) know the existence. Not yet.

J.: Do you make some sort of follow up, what will happen?
A.: No, I'm not interested because I see the bureaucracy is wasting my time, and I think I have the energy to continue and I have a good team so far. We met and bring expert in computers, language teaching and we enjoy. One person from UTM said he come to join our group because UTM see that we have potential and his faculty pay for the travel. I cannot say because it is still new. I think it'll take some years. Right now I think people are starting to accept because the other day I discuss with the deputy dean about the contribution of this journal in the promotion. So it is getting the
recognition. A person had his professorship after he published in our online journal. I think people want to publish

J.: But you have to maintain the peer-review?
A: I think we must review or otherwise the articles are published but the quality wise is out.

J.: There so many information online.
A: That's why I always emphasis that I want the journal that has credibility. I don't want to become like one journal in one of the local university where the person in-charge ask me whether I can send one more article just because he wants to make it complete and send for printing. I have written 2 articles for the issue. So that kind of journal you can figure out. You ask people to write in order you can publish

J.: For them it is difficult to get articles.
A.: Yes. So far I don't have that problems. I work with many people and they want to contribute in this journal. We are mix, some are very experience and some are new So we encourage the new people to write. But I cannot say in the future.

J.: Personally why do you think academics especially don't want to publish in online journal?
A: I Think people don't know the value People who are not used to online don't see the potential, people are used to paper and pen don't see the potential. I think one of the thing that I like most in online journal is the speed. When I compare with 2 years for the education department to publish a journal. This put me off. Secondly if you are a practitioner like me I can put all my teaching materials in the web and link them to the online articles then I can tell the student to get them from the Internet and they don't have to spend like RM20 to buy the whole journal. So people can use the knowledge. I don't know whether other university have accessed our journal or not. If people know the potential people will accept it.

J.: Do you think the support from the university is important to encourage people to write in online journal?
A.: I think there is a connection. Because when people see that the university recognised people doesn't see it's weaknesses Why they should not send to online journal I've seen many people in UKM get promoted when they put their articles online So the recognition will quicken the acceptance.

(END OF SIDE B) (TAPE 1)

(SIDE A) (TAPE 1)

A.: When we started with VirTEC we also created what we called VirTEC digest. We want something like reader's digest. We want to put seminar papers, reports and wanted to develop a database and people can buy. It was launched in 2001 and it was searchable One thing when you publish online you have to make sure that your material is searchable in the search engine. You have to go to different search engine and you tell them to include your URL so when people search they can get. In the case of our journal when people do small search they can get my article but if they put online journal it is not connected to the search engine and outside people won't know so it defeat the purpose. We want people outside to know and access, and when people read they can judge the value of the journal and people in the related areas will contribute.

J.: Is that means that you need someone with the computer skills?
A: I still believe the traditional one and maybe we can digitized because if you spend RM10,000 in printing and nobody buy it what is the point? I think the most important is people can access the information and use it.

J.: Why do you think people don't want to contribute and share knowledge?
A.: I think it is our culture.

J.: So culture plays the role here?
A: I think so, because I am putting a lot of teaching material in the Internet and people ask me do I not scared or worried. I said I have no problem and infact I feel good if people access my material and read them because they appreciate the information. It is irony because they download other people's materials but they are scared to put theirs online. People are scared of criticism, and it is the culture here. In my case if I have experience and I appreciated it why can't I share with another people.

J.: Do you think Malaysia is generally not willing to share because they are scared of criticism?
A: I think if you got a vision it is ok, I get Master students calling sometimes from Johor telling me that they read my articles, and they want to come and do research and the area, so I think at the end of the day you are the one who get the benefit not the other way round I asked them how they get to know me, and they said it is their supervisors. So let say if you are stingy and don't want to share do you think people can call and appreciate you. I don't think you can get this attitude from old generation. In fact not many younger generation have the sharing attitude. Like in our e-learning journal still many people are scared and I don't know why it is because of criticism or something else.

J.: You don't know exactly why?
A: No I don't know but I still think in our culture there are elements that we don't want to share.

J: From north to south people said the technology is there, but they don't have skills and staffs.
A: I am not agree if they said they don't have staffs and skills. I am proud if my journal is growing but we cannot expect it grow like in the USA. They have been established in research for many hundred years, and we can't compete. But I am satisfied if people from other countries quote my articles in UeLLT or VirTEC because it's a recognition. Do you think it is easy for people outside the country to read our journal if it is not online, like I published my articles in one of Malaysian education journal I always wonder do they get my article. And why are we so proud off even if we are professor and we had produced so many articles but were not read by our peers all over the world.

J.: What kind of attitude do you think they have?
A: I think maybe there is one fear. If you publish in the print form your chance for being criticised is not the same like when you put in online. People who put online are very brave people. When I put online it means people all over the world can read and they can write to me and criticized.

J.: So that is it.
A: I think scholarly work is something that you know very well and you can talk about it otherwise it is not scholarly work.

J.: This attitude will hinder the online publishing progress?
A: Maybe the culture. Like I was 5 years in Canada for my 1st degree, then I did my Master in the UK and I saw that their culture is open when people criticised in a good manner they can accept it. Maybe it is not our culture. If we are somebody let say professor or Dr. (PhD) we don't like people criticised us, our culture just different.
J.: Do you face any problem in getting articles in your field?
A: Not a problem but I see that many who sends are new generation maybe 45 and below.

J.: What about gender?
A: I think mixed, and in term of race it is not so obvious. It depends on the writer.

J.: What about their education?
A: I think most articles I get from people that are exposed to overseas education.

J.: Your journal is in English isn't it?
A: YeLLT is in English only but VirTEC we accept in Malay because it is Malaysian. But it's on the web, one of the reasons we put in the web is we want people recognized even if it's in Malay, because Malay speaking population is big.

J.: Maybe you can do bilingual?
A: I tend to disagree. I think it depends on the topic.

J.: Because you do TESL?
A: Yes. TESL cannot be written in Malay but once again it depends on the writer if the writer want to write in English or Malay be it because this VirTEC journal is discussing the education problem and on top of that it is a UNESCO project. They want something inter-regional so I said I want to develop Virtual Teacher Education Centre, that has Malay and English articles because Malay speaking population is big including Brunei, Singapore, and Thailand and it was accepted by UNESCO and I get RM95,000. So I was thinking why should we limit to English only. And just to ensure the quality we have one of our international editors is very well-versed in Malay. Professor Howard Coleman from Leeds University, had taught in Indonesia for 8 years, will sometimes review our Malay articles. So I am not agree with bilingual because a lot of work.

J.: What about the quality of writing in Malay and in English?
A: I think it can be improved but the fact that you got it peer-reviewed means we have quality control and if you think the article is not publishable then you don't publish. But quality is very subjective. Once they have a workshop and they took my article from UTM journal and Hasrom said "just like this...". That is his perception. As far as I have concern, it has been reviewed and the reviewing process has an element of quality control. If you want to say it has quality or not it is quite subjective. And I have seen a very established journal but the articles written were so simple and I think I can write like that.

J.: In term of language?
A: Language is the editor's responsibility. But sometimes you have to publish within certain time and you need just one more article to complete the issue so maybe the articles is not checked rigorously. I am not saying that we have to sacrifice the quality but if the articles fulfilled the requirement and publishable I think you can proceed. But you know in the institution, sometimes if a well-known professor writes something eventhough very conceptual, people will take note but if the article is written by ordinary people the checking is quite rigorous. I don't know but I sense this thing. Sometimes when we read the professor's article it look so easy but in our case it got kick off in the first round.

J.: Or is it our local reviewers are not exposed?
A: From my experience overseas' reviewers are more stringent compared to locals. I think the non-acceptance rate from overseas reviewers for articles I have sent is between 70-80% compared to local
about 20%. I don’t know whether our local reviewer is more lenient or because the oversea reviewers are more prolific because they have been exposed to the job for many years.

J.: Usually on what ground they have rejected, the language or the methodology?
A: Seldom on language seldom on style I think the essence. Sometimes their comment is on the discussion that is not appropriate with the journal, the scope of the study, and others is the methodology, I don’t think so much on presentation. Some of the articles are not so rigorous I think the depth of the discussions it is empirical but not detail.

J.: Have you heard about pre print and open archive?
A.: No it is the first time. Do they accept the articles already published?

J: It is for new articles. When you publish in there you will get open review and the articles can be improved. It is open access

A.: So this open archive is like public domain?
J.: Yes
A. : Something new.

J.: My supervisor told me it is good for Malaysian and other developing countries to think about it. Some people thought it is back issues.
A.: At first I also think like that but when you say that we can deposit articles then I understand it is like data base where people can put unpublished articles but I don’t see the logic.
A: So far how is the feedback from the questionnaire?

J.: I have been sending about 3000 and I got about 200

A.: How much is your target?
J.: As many as possible.

A.: All Malaysian?
J.: All public university and research institutes in Malaysia

A.: I don’t know how you track maybe you can contact professor Mizan and he should answer your questionnaire.
J.: No, I don’t have any names I just ask or get the e-mails of academics in public universities and the researchers in the public research institutes. I can track to remind the respondents based on the e-mail addresses. Let say if it is bounce, then I will send again to the address.

A.: I have already response and submit but the server was down. If other people may not send again but I think it is interesting I did twice. I thought it was your server but when I checked with friends it is our server

J.: Do you think server problem is common problem in Malaysia? Like one university I cannot access their staffs because the server is integrated and they have to que. So they gave me only certain e-mails for my survey.
A: I think the technical problem have to look into because that can put people off. I’ve met people who said they have been trying to access VirTEC journal but cannot. People who are motivated will mail to the editor but not everybody will do that.
J.: So the problem is there?
A: Yes, once in a while but an established university have to make sure when it is down quickly identify the problem and fixed it. In your case you were lucky you got mine, I was interested and before I submitted I make a copy so it is easy for the second time I fill the questionnaire. I know there are some people who are really interested with online publication.

J: Yes. Thank you for your support and your time. When I have finish I will send you the report. Thank you very much
A: No problem. I will appreciate if you can send the report.
INTERVIEW 13: Pn. Jaharah (UKM)

(Editor in the National University of Malaysia Press)

SIDE A

Pn. J: Hi. I come here to get some information about your journal. You handle the journal publishing don’t you?
Pn. Jaharah: Yes. I handle this Economic Journal since 2 years ago. It is still difficult to get articles just like many many years ago. Not much different. Two third of the articles for every issue were written by outsiders especially UPM.

Pn. J: Where do people here send the articles?
Pn. Jh. : I don’t know. To say that they send to international journals, the data show otherwise. I don’t know where do they send?

Pn. J.: E-journal?
Pn. Jh. : No. They like to send to international to get recognition.

Pn. J.: Do you have a list who send where?
Pn. Jh. : It should be because for promotion purposes. There should be some sort of directory to tell where do the people send the articles for publication. But I don’t find any. Not in the Internet either. Actually people don’t write. That’s it.

Pn. J.: Why people don’t write? They do a lot of research.
Pn. Jh. : That is the problem. They do many research but not many people write.

Pn. J.: Do know how much in term of money?
Pn. Jh. : No. You know people don’t even write articles to be published, and they don’t even send the report. Then how do you expects that they are able to write. Every project must have a report and from the research report we can develop into discourse. But they just don’t do it.

Pn. J.: What do you think the problem is?
Pn. Jh. : People are not interested in writing.

Pn. J.: People don’t write because many reasons, don’t know how to write, not interested in writing, don’t want to share or what?
Pn. Jh. : No, last time we did a survey. People like to do outside job to get more money like teaching in the distant education.

Pn. J.: What about now. Is the reason still the same?
Pn. Jh. : Yes because the distance education is still there and people from science and engineering for example they became a consultant. They can get more money in this job compare to writing because when you write you cannot make sure it can be published. So they are not interested. If they do write, they don’t write base on the research.

Pn. J.: And the research result?
Pn. Jh. : They just produced the report.

Pn. J.: In the first place why they do research if they don’t want to publish?
Pn. Jh. : That is the problem. We always ask the academics why don’t they write. They do research but they don’t write. People want to know their research. They never write book or article. If they want they can write because they do the research.

Pn. J.: Do you have problem in getting articles?
Pn. Jh. : Big problem. We have 11 journals. All the journals are refereed. Scholarly publications must be refereed. But all the editorial boards for the journals complain that they have problems in getting articles.

Pn. J. : You mean that you are not handling the journals?
Pn. Jh. : In UKM we have 11 journals. The university had upgraded all the journals become university’s journals. So we, the University Press appoint people in the relevant field to head the journal at the faculties’ level. These journals’ head inform us that it is so difficult to get articles.

Pn. J. : Are your journals being indexed by the indexing agent?
Pn. Jh. : Last time yes, because they are always published on-time. But now we are rejected because we have been delayed for 2 or 3 years. Only one or two journals are published on time.

Pn. J. : Are these two being indexed?
Pn. Jh. : Not really because sometimes they are still delay, sometimes on time. Depend on the editors. If the editors really hardworking the journal will come out on time. On time here meaning if the journal supposed to be out in July it should be out in July not December. What is always happen is the later. The indexing agent will know whether we are on time or not. If we are always late then they will slash out our name.

Pn. J. : How do your journals being processed here?
Pn. Jh. : All the articles for the journals will be send to the respective journal’s editorial boards. After the articles being reviewed by the respective editorial boards, they will send to us in the University Press. Then we will do the technical editing not the language editing.

Pn. J. : So, you alone do for all 11 journals?
Pn. Jh. : Yes.

Pn. J. : What is the frequency?
Pn. Jh. : I always have to work, all year round. The problem is not on time. Towards the end of the year plenty of articles will come in but all issues are delayed. Never 2003 issue will come out in the 2003 always the next year. So 2002 issue will come out in the 2003 and so on, they always delay.

Pn. J. : Why not put online?
Pn. Jh. : Ours is more towards website. We tried to put Akademika online but we don’t see people access

Pn. J. : Why?
Pn. Jh. : Very few people visit the website

Pn. J. : Is Akademika in English?
Pn. Jh. : Both languages. 50-50%.

Pn. J. : Maybe people don’t know?
Pn. Jh. : When people seek information on the web they go straight to their field. From the title ‘Akademika’ people can guess the field.

Pn. J. : Is it free?
Pn. Jh. : During the trial it is free. But now we only put the abstracts because it is not encouraging. Only one issue we put online in PDF for trial.

Pn. J. : Do you have plan to publish online only journal?
Pn. Jh. : We are not interested.
Pn. J. : Why?
Pn. Jh. : We print 350 copies. In fact not even 100 copies were sold.

Pn. J. : You have 100 subscribers?
Pn. Jh. : No. No subscribers but very few that you can count with your finger. We gave 50 copies to libraries under exchange programme and another 50 to Press and authors. The rest we gave as gifts. Nobody bought.

Pn. J. : People don't buy your journals then why not publish online and have free access?
Pn. Jh. : Maybe. We did market the print one people don't buy, and we put online people don't see it. We tried. It is not our purpose to give people free access by putting online because it incurs cost.

Pn. J. : Let say at the beginning and later on you may charge.
Pn. Jh. : I don't know. I just not interested or maybe not the time yet.

Pn. J. : The reason is people don't access?
Pn. Jh. : People do access but they say we already have the print version. If the print can sell then we can put online. We have the print version and people don't buy and now put it online for free, it is too much. Maybe the author themselves put their articles online and put their name as well.

Pn. J. : In that case the articles may not be reviewed?
Pn. Jh. : The articles are all being reviewed. I mean after the articles has been reviewed the authors can put them online.

Pn. J. : Did the authors want to do that?
Pn. Jh. : Yes, many of them.

Pn. J. : In their own websites?
Pn. Jh. : Up to them but on their name not the Press.

Pn. J. : Why do you want to do that?
Pn. Jh. : If the author want to do that they can. Many established journals they started with print then they do online. Very rarely people go straight to online. We still want the print form.

Pn. J. : Is there request from authors to have online journal?
Pn. Jh. : We do and we approve the request.

Pn. J. : What do they say?
Pn. Jh. : The authors said that they will revive the previous online journal. I don't know why.

Pn. J. : Is there any lecturers here do self-publishing online?
Pn. Jh. : Yes. But I wonder who review the works. And I don't know whether the work is reviewed or not. There is one journal-Multimedia and Information Science that the authors want to have online only but they face shortage of articles. So sometimes publish sometimes not. They managed to publish one issue the first one. The second and third not published. Language department also have the same fate. They managed to publish only the first issue. The problem is no articles. If you put online it is even more obvious.

Pn. J. : So, the problem is no articles, a lot of research but nobody write, and the press don't publish online because nobody access?
Pn. Jh. : Yes. Nobody access is one problem but there is other in term of not the time yet.

Pn. J. : When do you think is the time?
Pn. Jh. : I give you example. Like UM they put just the abstracts online just to advertise. If you really interested you will buy the hardcopy just like what we do now. Like USM they put...
the book online and people want to access but the website sometimes can be accessed sometimes not. The point is we are not in that level yet.

Pn. J. : University not using broadband?
Pn. Jh. : No.

Pn. J. : So it is difficult to access?

Pn. J. : Have you identify the problem?
Pn. Jh. : We are depending to our Computer Centre. They develop and manage all our system. If the computer centre is not advanced it is useless. Like USM it will take hours to access.

Pn. J. : Do you think the infrastructure is still inefficient?
Pn. Jh. : The government has taken and absorb the MIMOS under the Ministry of Science and Technology (The MIMOS supposed to operate as independent body but due to many problems the government had absorb into the the Ministry)

Pn. J. : You mean they just say where in actual term we are lacking?
Pn. Jh. : They just say. How many people that really can access online? We are imagining that everybody can access. Maybe the lecturers can access but what about students?

Pn. J. : Do you think universities are facing difficulties in accessing?
Pn. Jh. : Sometimes we cannot get access the Internet. And then the non-stop of viruses attacked. If you have printed articles you can bring anywhere you can even read in the loo. But for the electronic you cannot bring anywhere. For example, I don’t like to sit in front of computer for hours. And if you surf for articles from overseas, most of the times you have to subscribe before you get the whole articles. So what is the point sitting for hours in front of the computer?

Pn. J. : Then the library has to subscribes.
Pn. Jh. : The easiest way is go to the library and photocopy the print journals. If you search in the Internet and later on you find out that you have to subscribe it is wasting of time. As for print journals you can photocopy whatever pages you like. Kalau

Pn. J. : You don’t think the lecturers are keen to publish online?
Pn. Jh. : So far I met with people who are putting the title and abstracts online not the whole text.

Pn. J. : What do think is their reason?
Pn. Jh. : If they decided to put online they will only put the advance research because people from other countries are more advance.

Pn. J. : Do you mean the researches that they have conducted are not advance or significant?
Pn. Jh. : Yes. We like to talk a lot. The truth is we just copy what other people have done. If you can consider different from other people maybe Malaysiana, about Malaysia for example ‘Akademika’ because this journal deals with Malay’. Others no chance because other people are more advance. People don’t want to read ours like for example in medicine. Who wants to access our articles in medic because they are more advance than us, and nobody know our writers even though we put online.

Pn. J. : Ok we forget about other people. We had spent a lot of money and yet the public cannot access the results?
Pn. Jh. : It is the university’ problem, that it does not force the researchers to publish, when people do research they must publish.
Pn. J.: Doesn't it compulsory for promotion exercise?
Pn. Jh.: Yes, but still many lecturers don't bother to do it. Sometimes ask them to give a report not to publish or anything like that on what they did and send it to Research Unit but they never do it. I think some university really stressed on publication but some are not depend on the universities.

Pn. J.: What about UKM?
Pn. Jh.: During the meeting we ask people their papers, but they say they sent them to the International journal and they don't want to send to UKM' journals because ours is local and low standard. The university wants the international journals. Actually they don't understand what international journal is?

Pn. J.: Do you consider your journals as international?
Pn. Jh.: They are international because in scholarly concept there is no local or international. For scholarly journal it must have the reviewing process, and follow the rules of scholarly writings. If you have that, then it is scholarly.

Pn. J.: Do you received articles from abroad?
Pn. Jh.: Yes, for 'Akademika' we received articles from Netherland. We consider our journals are international. In the application form for promotion it stated the international journal but it don't mention about national journal and they give percentage more on the international journals. The problem is the top persons don't really understand. We explained to the lecturers but the problem is in the application form only mentioned either international or not international. And the lecturers always said that they are writing for the international journal but when we check there were none. So where do they actually publish? And suddenly the following year you will find out some of them got Associate Professor. To apply for AP you only need one article in journal and two seminar papers. If you present 10 seminar papers and publish five articles in the journals you are qualified.

Pn. J.: So, the university do not encourage to publish in local journal?
Pn. Jh.: University do encourage but people write because they want promotion not to disseminate research results. To academics their duty is to teach and if they write is for promotion purposes so they prefer to present in the conferences, less effort. There are many lecturers who are quiet after they get their professorship.

Pn. J.: Maybe they don't have time after promotion?
Pn. Jh.: No, not because they don't have time, because they write to get promotion. It is not scholarly at all. If you don't believe me you can ask them yourself, any body want to be scholars? None.

Pn. J.: Why?
Pn. Jh.: I think attitude problem, what else? People who love knowledge will busly themselves to do research and disseminate them. Maybe one or two persons we can call scholars. When they get the professorship they are busy holding numerous positions, and of course no time to write. If the VC don't write what do you expect the subordinates. Those books written by them are collaboration with 4 or 5 other people.

Pn. J.: What do you think exactly is the problem?
Pn. Jh.: I think it is the culture of working place. The seniors don't write but we give writing courses to the subordinates. We are damned tired giving them such courses because they just won't write.

Pn. J.: The superiors don't encourage?
Pn. Jh.: No. They prefer to write for compilations or proceedings.

Pn. J.: Are they reviewed?
Pn. Jh.: They said they reviewed, among themselves. I always get the manuscripts but no quality. When I told them they get angry with me.
Pn. J.: No quality even after reviewing?
Pn. Jh.: To us no quality to them it has quality. When I told them no quality they asked me back 'who are you'? Actually we doubt the ability of the reviewers because they choose the wrong persons to be reviewers.

Pn. J.: Are the reviewers theirs friends?
Pn. Jh.: I'm not sure but usually they said they already send to reviewers, and they choose the reviewers, and the reviewers say OK.

Pn. J.: Why the selection of the reviewers not done by the Press?
Pn. Jh.: No, we have no control. They said the manuscripts had been reviewed. But to me they are bad. Maybe they can put in some of the magazines but surely not scholarly publications. We are always in conflict.

Pn. J.: Are your journals recognised for promotion?
Pn. Jh.: Yes. Even Indonesia recognised our journals. Many articles are from outside the university mostly from UPM. But our own people don't send here.

Pn. J.: UPM Press said that many UKM staffs send articles there.
Pn. Jh.: Maybe the same person who send the articles. If they send to the same Press maybe the articles got delayed. So they send to UPM Press instead.

Pn. J.: Do you think competency in language hinder them from writing?
Jh.: I don't think so maybe because incompetency in writing. It is easy to write in science for instance. They do research they got the materials, the methodology, the result and conclusion. That is all they have to write.

Pn. J.: What about non-science?
Pn. Jh.: People say it is difficult to write. The senior one don't write and the younger one also don't write.

Pn. J.: Do you have writing course for the staffs?
Pn. Jh.: Five or six times a year. We took a thesis teach them how to make it into book or part of the thesis into chapter of the book. But none come to us. They just don't do it.

(PRESS OF SIDE A)

SIDE B

Pn. Jh.: We tried to show them and help them how to write scholarly articles but the energy is just wasted. Nobody wants to write seriously. Actually we created a position, Malim Sarjana (captain scholar), something like professor or senior lecturer. But people just don't bother. Young lecturers don't go to seniors and the old lecturers never work together.

Pn. J.: What is the problem?
Pn. Jh.: People don't like to coach. It is attitude I supposed. And people don't like to be told and they don't want to be corrected.

Pn. J.: They don't like being criticised?
Pn. Jh.: No. If they send a paper they thought it would be publish straightaway. If you told them to correct certain things they will not come. And if you criticised they would not send anything to you. I wanted to put articles from the seminar into 'Akademika'. Out of 63 articles we get 12 articles suitable for the journal. We called the faculty members and we have a workshop. And after two years nothing came back for correction except one or two. We want to help so that the articles can be upgraded but they don't want our help.

Pn. J.: Do you think the academics have no time because they have to spend more time in teaching?
Pn. Jh. : Majority of them teach 16 hours a week but varies between them. Some got more and some less. Yes quite a number of them complaint that they are burdened to teach and do research. But I am wondering that you must have papers if you do research because they always say that they are busy. However, everytime I met them the papers still not finish. No articles to send, why not. But I know many people from Economic became consultant outside like in the Prime Minister Department, and travel to Sabah and Sarawak. They get a lot of money.

Pn J. : What about people from other faculty?
Jh : They don’t know how to write. Sometimes we help to correct for five times so that the articles are suitable for publication. We just want to help. I know that UKM teach all her undergraduates and Master students to write. But still nobody like to write articles.

Pn. J. : So UKM will not consider to publish online at all?
Pn. Jh. : No. If possible they want the print journals to be also ceased publication.

Pn. J. : Why?
PnJ. : Sometimes publish sometimes not. Publish not on time. The Press is losing. We print 350 copies and not even 50 copies were sold. We just gave to libraries for free. For one issue we have to spend about RM10,000. But after all we publish because for promotion exercise, to publish research results. We can only sell to the few subscribers. We are not like journals published in the West. Many people want to subscribe including our local universities because of their field. Our journals difficult to sell because of our researches are considered low and local. Our researches are still below standard (at least what they thought). They are ahead of us. If you do research on beetles that maybe only exist here, maybe people outside the country interested to know but if you do on perfume for example, where in this case use the same methodology but applied to local materials nobody wants to know because they are more advanced. People may interest to read something on Malaysia, or Malay world but this area will not attract many people.

Pn. J. : Is it because our area of research or because the country?
Pn. Jh. : We are third world country. Who will believe in us. Maybe African countries because they are third world like us because I happen to see that African and Latin America access to our articles on solar energy.

Pn. J. : Do you publish conference proceedings?
Pn. Jh. : They will be publish by the respective organisers. If they send them to us we will modify them to publish as books.

Pn. J. : Is proceeding recognised for promotion?
Pn. Jh. : Yes but the marks will be less than the journal. For confirmation they only need two papers in proceedings. And the young lecturers like that.

Pn. J. : What about application for assistance professor?
Pn. Jh. : They have to publish at least 4 papers in the scholarly journals. If I don’t get articles I am worried too because my yearly job performance will base on the number of journals publish. This year I got 16 issues out but last year only six. People thought that I don’t do my job but actually I cannot do anything if people don’t send.

Pn. J. : I’m sure your boss know the situation.
Pn. Jh : The work here is seasonal. There would be many articles come in during the promotion exercise, June and November. At that time people are expecting that I will send for printing the next day after they send their articles. I just wonder they ask for IRPA but it is so difficult to come up with one article.

Pn. J. : People don’t sent to you maybe they self-publishing?
Pn. Jh. : The root of the problem is that people just don’t like to write. They have things to write from research but they don’t write. So do you expect people will publish online or self-
publishing. I doubt it. If they decide to self-publish the publications would not considered for promotion.

Pn. J. : What is university policy on online materials?
Pn. Jh. : For now the online publishing are not recognised because people are skeptical of its credibility.

Pn. J. : They may send for reviewed before they self-publish?
Pn. Jh. : Maybe. But you see here I am willing to help them anytime to make their articles suitable for publication but people never came. I am sure to self-publish online is even more challenging

Pn. J. : Do you have the online facilities?
Pn. Jh. : No. One person among us do the web. Sometimes when we send to our printer online they cannot read because the formatting we did just go chaotic. So we have to send the hard copy together with the disk. We cannot send formatted files to our printer by e-mail. If we want to use the online system in publishing we have to have the new computer. But now the university has no money to buy new computers. Even the server sometimes ok sometimes not ok.

Pn. J. : How do you send to the reviewers?
Pn. Jh. : Sometimes through file attachment but sometimes their computers got virus and we cannot get back for 3 of 4 weeks. So some we send the hard copy. Actually there are so many problems on the ground. People said that we are so sophisticated but not everybody has the facilities. So to do totally online right now is not possible. Maybe later like many of the medicine journals when they established in the print form they go online. When people know then you can publish in whatever form you want.

Pn. J. : The government said that we are going to be a developed country?
Pn. Jh. : Do you know that the government website is not updated. It is so difficult to access National Library. Dewan Bahasa have the website but difficult to access and no publications lists. At least our web did appear in Amazon com because we have 286 titles of books that you can buy. USM is higher than us. For those who are interested in our journal they can subscribe online. Usually when people read the abstracts they will ask for the print full articles or we fax to them. The service is free. I don’t fancy to publish online because people always surf and our journals were not publish on time. It is embarrassing.

Pn. J. : The university is not encouraging the online publishing?
Pn. Jh. : I don’t think so. For many years we have been asking for two more staffs and just recently they have approved it. It is even more difficult to get more computers and right now we are facing server problem.

Pn. J. : I thought our infrastructure is highly developed.
Pn. Jh. : Maybe just the internal server not the infrastructure I am not sure. Like in USM people can access to their books online but it will take time to download the whole book

Pn. J. : USM journal publishing is decentralised and they are concentrating on books.
Pn. Jh. : What USM do is digitising the print books. Last time we try to put part of a book online and it became a case in the university because people use the title and add up the content about PULO (Pattani United Liberation Organisation) All of sudden PULO come into our book which surely we don’t have any connection. In other word we really cannot control when it is online. So now we just put the catalogue in the web. If they are interested they will buy. If the university wishes to have online publishing it can ask the Information Department to do it because they have the facilities. But how can they publish online with just 4 articles. It is no point publishing online because the problem is not that we cannot publish on time but we have no articles so that we can publish on time. I am waiting for more articles now. I can say no university Presses have the online journals. What they have is the websites
where you can get just the list not the full articles. If you have articles you can publish either online or conventional.

Pn. J. : Ok. Thank you for the information.
Semi-structured interview questions:

1. Do you publish journals?
2. How is the response from authors (within the institution/outside the institution)?
3. Personally what do you think about publishing research result in online-only journals?
4. In your opinion what do authors think about publishing in online-only journal?
5. What is your institution’s view about publishing in online-only journals (e.g. recognition)?
6. Do you think your institution have facilities or means to start online-only journal?
7. In your opinion what are the reasons that online-only journal do/ do not widely adopted by authors?
8. Based on your experience, do you think online journals publishing will be accepted by Malaysian authors in the future?
9. Do you have any idea about the model of online-only journal that your institution might prefer to have?
10. Comments on online-only journal

Interviewees

1. University Putra Malaysia (Pn Kamariah)
2. MARDI (Pn Rohani)
3. University of Science Malaysia (Pn Fadzilah)
4. National University of Malaysia (Pn Jaharah)
5. University of Technology Malaysia (En. Khalid Mazlan)
6. FRIM (Pn Saripah)
7. Prof. Dr. Zainab Awang Ngah (UM)
8. SIRIM
9. MPOB (En Aziz)
10. University of Technology MARA (Dr. Shreen)
11. Prof. Madya Dr. Mohd Amin Embi (UKM lecturer)
12. Rosfa (UKM lecturer)
13. Kamalul (USM lecturer)
Appendix 3

Lists of journals from Malaysian National Library. Data obtained in 2004.

Lists of Malay language journals

1. Jurnal IKD (Institut Kajian Dasar)
2. Jurnal Jubli Perak Kor Artileri (Jabatan Arah Artileri, Dep. Tentera Darat)
3. Jurnal Angkatan Tentera Malaysia (Kementerian Pertahanan)
4. Jurnal Perkhidmatan Sebaran Pendidikan (Kementerian Pelajaran Malaysia)
5. Jurnal Sains (Institut Penyelidikan Getah Malaysia)
6. Jurnal Kebajikan masyarakat (Kementerian Kebajikan Am)
7. Jurnal Pergigian Universiti Malaya Fakulti (Fakulti Pergigian University of Malaya)
8. Purba Jurnal Persatuan Muzium Malaysia (Persatuan Muzium Malaysia)
9. Penulis Jurnal Persatuan Penulis Nasional (Dewan Bahasa dan Pustaka)
10. Jurnal Dakwah (Biro Dakwah Pergerakan Pemuda UMNO)
11. Jurnal Pendidikan Islam (Angkatan Belia Islam Malaysia)
12. Jurnal PERKAMA (Persatuan Kaunselor Malaysia)
13. Jurnal Intan (Institut Tadbiran Awam Negara)
14. Jurnal Pendidikan Guru (Bahagian Pendidikan Guru, Kementerian pendidikan)
15. Jurnal Persatuan Linguistik Malaysia (Persatuan Linguistik Malaysia)
16. Jurnal Pendidikan Pahang (Jabatan Pelajaran Negeri)
17. Jurnal Sains Farmasi Malaysia (Malaysian Pharmaceutical Society)
18. Jurnal Ikhtisas Maktab Perguruan Sri Pinang (Maktab Perguruan Sri Pinang)
19. Jurnal MAPERA (Maktab Perguruan Rajang)
20. JEM Jurnal Ekonomi Malaysia (Fakulti Ekonomi, Universiti Kebangsaan Malaysia)
21. Jurnal KPKT
22. Jurnal Pengajaran Dan Pembelajaran Bahasa (Bahagian Sekolah-sekolah Kementerian Pelajaran)
23. Jurnal Pengajian India (Jabatan Pengajian India, Universiti Malaysia)
24. Senarai Jurnal Sainstik (Perkara khusus) (Perpustakaan, Jabatan Sains Penerangan)
25. Jurnal Fizik Malaysia (Institute of Physics Malaysia)
26. Minda Jurnal Akademik (Institut Teknologi MARA Cawangan Perak)
27. Jurnal Personalia Pelajar (Penerbit Universiti Kebangsaan Malaysia)
29. Pengurusan Awam Jurnal Perkhidmatan Awam (Unit Pemodenan Tadbiran Malaysia, Jabatan Perdana menteri)
30. Jurnal Bank Bumiputera (Bank Bumiputra Malaysia Bhd)
31. Hikmah Jurnal KUSZA (Kolej Ugamma Sultan Zainal Abidin)
32. Jurnal Kujuruteraan Awam (Fakulti Kejuruteraan Awam, Universiti Teknologi malaysia)
33. Jurnal Bahasa Moden Jurnal Pusat Bahasa UM (Pusat Bahasa Universiti Malaya)
34. Jurnal Produktiviti (Pusat Daya Pengeluaran Negara)
35. Jurnal Budaya (Kementerian Kebudayaan dan Pelancongan Malaysia)
36. Jurnal Penterjemah (Persatuan Penterjemah Malaysia)
37. Jurnal Psikologi Malaysia (Jabatan Psikologi, Universiti Kebangsaan Malaysia)
38. Jurnal Islamiyat Fakulti Pengajian Islam (Fakulti Pengajian Islam, Universiti Kebangsaan)
40. Jurnal Pengurusan Pendidikan (Institut Aminuddin Baki, Kementrian Pendidikan Malaysia)
41. Jurnal PPJ (Persatuan Penulis Johor)
42. Jurnal Budaya Melayu (Institut Bahasa, Kesusteraan dan Kebudayaan Melayu UKM)
43. Jurnal Perundangan (Angkatan Belia Islam Malaysia)
44. Jurnal Teknologi Maklumat (Institut Sains Komputer, UTM)
45. Jurnal Sains Pusat Penyelidikan Getah (Pusat Penyelidikan Getah Malaysia)
46. Jurnal Pembacaan (Universiti Malaya)
47. Jurnal Nelayan (Penerbitan Jurnal Nelayan)
48. Tirai Panggung Jurnal Seni mPersembahan (Universiti Malaya)
49. Jurnal Pendidikan Komuniti (Institut Aminuddin Baki)
50. Akademia Jurnal Akademik ITM Cawangan Dungun (Institut Teknologi MARA)
51. Jurnal Syariah (Fakulti Syariah, Akademi Islam, Universiti malaya)
52. Jurnal Fizik UTM (Universiti Teknologi Malaysia)
53. Jurnal Tassawur Islam (Jabatan Agama Islam)
54. Jurnal IKIM (Institut Kefahaman Islam Malaysia)
55. Jurnal Darul Quran (Jabatan Perdana Menteri)
56. Persa Jurnal Puisi Melayu (Dewan Bahasa dan Pustaka)
57. Jurnal Penelitian & Pengembangan Pertanian (Pemerintah Pertanian)
58. Penerbitan Jurnal Ilmiah Di Malaysia (Penerbit Universiti Malaya)
59. Jurnal Usuluddin (Universiti Malaya, Bahagian Pengajian Usuluddin, Akademi Pengajian Islam)
60. Jurnal Wacana Pendidikan (Maktab Perguruan Pasir Panjang Kuala terengganu)
61. Jurnal Pendidikan Gerak (Maktab Perguruan Persekutuan Pulau Pinang)
62. Jurnal Perumahan (Jabatan Perumahan Negara)
63. Jurnal Halaman Bestari (Perbadanan Perumahan Negara)
64. Jurnal Ukur Bahan (Fakulti Alam Bina, UTM)
65. Jurnal Ilmu Kemanusiaan (Pusat Pengajian Ilmu Kemanusiaan, USM)
66. Jurnal Melewar (Maktab Perguruan Raja Melewar)
67. Jurnal Fikrah (Pusat Pendidikan Persediaan, ITM)
68. Jurnal Dewan Bahasa (Dewan Bahasa dan Pustaka)
69. Jurnal Warisan Johor (Yayasan Warisan Johor)
70. Jurnal Institut Teknologi Tun Hussein Onn (Institut Teknologi Tun Hussein Onn)
71. Jurnal Pengajian Melayu (Akademik Pengajian Melayu, Universiti Malaya)
72. Jurnal Sains Nuklear Malaysia (Pusat Penyelidikan Atom Tun Ismail)
73. Jurnal Alam Bina (Fakulti Alam Bina, UTM)
74. Jurnal Kurikulum (Pusat Perkembangan Kurikulum)
75. Jurnal Kaji Sosial (Jabatan Kaji Sosial, Institut Perguruan Sultan Idris)
76. Jurnal Keningau (Maktab Perguruan Keningau)
77. Jurnal Maktab Perguruan rajang (Maktab Perguruan Rajang)
78. Jurnal Seri Alam (Lembaga Muzium Selangor)
79. Jurnal ITTHO (Institut Teknologi Tun Hussein Onn)
80. Maktab Perguruan Batu Lintang (Maktab Perguruan Batu Lintang)
81. Jurnal Ilmiah (Maktab Perguruan Gaya)
82. Jurnal Kuliah Budaya Johor (Pelestarian Kebudayaan dan Kesenian) (Pusat Kesenian Johor)
83. Jurnal BTP (Bahagian Teknologi Pendidikan, Kementerian pendidikan Malaysia)
84. Jurnal KISDAR (Kolej Islam Darul Ehsan)
85. Jurnal P.K.P.S.M (Persidangan Kebangsaan Pengetua Sekolah Menengah)
86. Jurnal Akademik UiTM Kampus Segamat (UiTM Kampus Segamat)
87. Jurnal Dermatologi Malaysia (Persatuan Dermatologi Malaysia)
88. Jurnal Sekolah Pengajian Islam (KUSZA)
89. Jurnal Pengguna Malaysia (Jabatan Pengurusan Sumber dan Pengajian Pengguna)
90. Jurnal Pendidikan Teknikal (Kementerian Pendidikan)
91. Jurnal KUTHHO (KUTHHO)
92. Jurnal Kerja Sosial Malaysia (Pusat Pengajian Psikologi & Pembangunan Manusia)
93. Jurnal Antarabangsa Teknologi Maklumat (Fakulti Teknologi dan Sains Maklumat UKM)
94. Jurnal Biro Tatanegara (Bahagian Penyelidikan BTN)
95. Jurnal Sejarah Selangor Darul Ehsan (Persatuan Sejarah Malaysia)
96. Jurnal Psikologi dan Pembangunan Manusia (Pusat Pengajian Psikologi dan Pembangunan Manusia, UKM)
97. Jurnal Pemuda (Biro Penerangan Pergerakan Pemuda UMNO)
98. Jurnal Kesehatan Masyarakat (Jabatan Kesehatan Masyarakat)
99. Jurnal Antarabangsa Durian Melayu (Dewan Bahasa dan Pustaka)
100. Jurnal IKSEP (Jurnal Iksep)
101. Jurnal Pendidikan Institut Kimia Malaysia (Institut Kimia Malaysia)
102. MIDA Perpustakaan. Indeks Rencana Jurnal. (MIDA)
103. Jurnal Antropologi dan Sosiologi (Antropologi dan Sosiologi, Universiti Kebangsaan Malaysia)
104. Jurnal Dewan Bahasa (Dewan Bahasa dan Pustaka)
105. Jurnal Veterinar Malaysia (Fakulti of Veterinary Medicine and Animal science UPM)
106. Jurnal Tanah (Persatuan Pengurusan Tanah Semenanjung Malaysia)

Lists of English language journals

1. List of journal holdings (RRIM Library)
2. Journal of the Public Works Department Peninsular Malaysia (Jabatan Kerja Raya)
3. Malaysian Journal of Computer Science (Pusat Komputer Universiti Malaya)
4. The Malaysian Journal of Agricultural Economics (Malaysian Agricultural Economics Association)
5. Journal of Language Teaching, Linguistics and Literature (Universiti Kebangsaan Malaysia)
6. Journal of Bioscience (School of Biological Science, Universiti Sains Malaysia)
10. MARDI Research Journal (Bahagian Perkhidmatan Teknikal, MARDI)
11. The Medical Journal of Malaysia (Malaysian Medical Association)
15. The Malaysian Journal of Psychiatry (Fakulty of Medicine, Universiti Kebangsaan Malaysia)
16. Journal of Industrial Technology (SIRIM)
17. Journal of International Business (MEDEC, Institut Teknologi Mara)
18. Journal of Physical Science (Universiti Sains Malaysia)
19. Federation Museums Journal (New Series) (Muzium Negara)
20. The Journal of Wildlife and Parks (Jabatan Perlindungan Hidupan Liar & Taman Negara (PERHILITAN))
21. Architecture Journal (Dept of Architecture, Faculty of Built Environment, UTM)
Appendix 3

Lists of journals from Malaysian National Library. Data obtained in 2004.

Lists of Malay language journals

1. Jurnal IKD (Institut Kajian Dasar)
2. Jurnal Jubli Perak Kor Artileri (Jabatan Arah Artileri, Dep. Tentera Darat)
3. Jurnal Angkatan Tentera Malaysia (Kementerian Pertahanan)
4. Jurnal Perkhidmatan Sebaran Pendidikan (Kementerian Pelajaran Malaysia)
5. Jurnal Sains (Institut Penyelidikan Getah Malaysia)
6. Jurnal Kebajikan masyarakat (Kementerian Kebajikan Am)
7. Jurnal Penggunan Universiti Malaya Fakulti (Fakulti Penggunan University of Malaya)
8. Purba Jurnal Persatuan Muzium Malaysia (Persatuan Muzium Malaysia)
9. Penulis Jurnal Persatuan Penulis Nasional (Dewan Bahasa dan Pustaka)
10. Jurnal Dakwah (Biro Dakwah Pergerakan Pemuda UMNO)
11. Jurnal Pendidikan Islam (Angkatan Belia Islam Malaysia)
12. Jurnal PERKAMA (Persatuan Kaunselor Malaysia)
13. Jurnal Intan (Institut Tadbiran Awam Negara)
14. Jurnal Pendidikan Guru (Bahagian Pendidikan Guru, Kementerian pendidikan)
15. Jurnal Persatuan Linguistik Malaysia (Persatuan Linguistik Malaysia)
16. Jurnal Pendidikan Pahang (Jabatan Pelajaran Negeri)
17. Jurnal Sains Farmasi Malaysia (Malaysian Pharmaceutical Society)
18. Jurnal Ilmuhsas Maktab Perguruan Sri Pinang (Maktab Perguruan Sri Pinang)
19. Jurnal MAPERA (Maktab Perguruan Rajang)
20. JEM Jurnal Ekonomi Malaysia (Fakulti Ekonomi, Universiti Kebangsaan Malaysia)
21. Jurnal PKPT (Jurnal Pengajaran Dan Pembelajaran Bahasa (Bahagian Sekolah-sekolah Kementerian Pelajaran)
22. Jurnal Pengajian India (Jabatan Pengajian India, Universiti Malaya)
23. Jurnal Fizik Malaysia (Institute of Physics Malaysia)
24. Jurnal Sainsan (Kolej UCI)
25. Jurnal Fizik Malaysia (Institute of Physics Malaysia)
26. Jurnal Personalia Pelajar (Penerbit Universiti Kebangsaan Malaysia)
27. Jurnal Guru (Pengelola Perayaan Hari Guru peringkat kebangsaan)
28. Pengurusan Awam Jurnal Perkhidmatan Awam (Unit Pemodenan Tadbiran Malaysia, Jabatan Perdana menteri)
29. Jurnal Bank Bumiputera (Bank Bumiputera Malaysia Bhd)
30. Hikmah Jurnal KUSZA (Kolej UCI)
31. Jurnal Kajian dan Perkara (Perkara khusus) (Perpustakaan, Jabatan Sains Penerangan)
32. Jurnal Fizik Malaysia (Institute of Physics Malaysia)
33. Jurnal Budaya (Kementerian Kebudayaan dan Pelancongan Malaysia)
34. Jurnal Psikologi Malaysia (Jabatan Psikologi, Universiti Kebangsaan Malaysia)
35. Jurnal Pendidikan Islam (Fakulti Pengajian Islam, Universiti Kebangsaan)
36. Jurnal Penyelidikan Islam (Pusat Penyelidikan Islam Malaysia, Jabatan Perdana menteri)
37. Jurnal Pengurusan Pendidikan (Institut Aminuddin Baki, Kementerian Pendidikan Malaysia)
38. Jurnal PJJ (Persatuan Penulis Johor)
<table>
<thead>
<tr>
<th>No.</th>
<th>Jurnal atau Perkhidmatan Penerbitan Utama</th>
</tr>
</thead>
<tbody>
<tr>
<td>42.</td>
<td>Jurnal Budaya Melayu (Institut Bahasa, Kesusteraan dan Kebudayaan Melayu UKM)</td>
</tr>
<tr>
<td>43.</td>
<td>Jurnal Perundangan (Angkatan Belia Islam Malaysia)</td>
</tr>
<tr>
<td>44.</td>
<td>Jurnal Teknologi Maklumat (Institut Sains Komputer, UTM)</td>
</tr>
<tr>
<td>45.</td>
<td>Jurnal Sains Pusat Penyelidikan Getah (Pusat Penyelidekan Getah Malaysia)</td>
</tr>
<tr>
<td>46.</td>
<td>Jurnal Pembacaan (Universiti Malaya)</td>
</tr>
<tr>
<td>47.</td>
<td>Jurnal Nelayan (Penerbitan Jurnal Nelayan)</td>
</tr>
<tr>
<td>48.</td>
<td>Tirai Panggung Jurnal Seni mPersembahan (Universiti Malaya)</td>
</tr>
<tr>
<td>49.</td>
<td>Jurnal Pendidikan Komunititi (Institut Aminuddin Baki)</td>
</tr>
<tr>
<td>50.</td>
<td>Akademia Jurnal Akademik ITM Cawangan Dungun (Institut Teknologi MARA)</td>
</tr>
<tr>
<td>51.</td>
<td>Jurnal Syariah (Fakulti Syariah, Akademi Islam, Universiti malaya)</td>
</tr>
<tr>
<td>52.</td>
<td>Jurnal Fizik UTM (Universiti Teknologi Malaysia)</td>
</tr>
<tr>
<td>53.</td>
<td>Jurnal Tassawur Islam (Jabatan Agama Islam)</td>
</tr>
<tr>
<td>54.</td>
<td>Jurnal IKIM (Institut Kefahaman Islam Malaysia)</td>
</tr>
<tr>
<td>55.</td>
<td>Jurnal Darul Quran (Jabatan Perdana Menteri)</td>
</tr>
<tr>
<td>56.</td>
<td>Perisa Jurnal Puisi Melayu (Dewan Bahasa dan Pustaka)</td>
</tr>
<tr>
<td>57.</td>
<td>Jurnal Penelitian &amp; Pengembangan Pertanian (</td>
</tr>
<tr>
<td>58.</td>
<td>Penerbitan Jurnal Ilmiah Di Malaysia (Penerbit Universiti Malaya)</td>
</tr>
<tr>
<td>59.</td>
<td>Jurnal Usuluddin (Universiti Malaya, Bahagian Pengajian Usuluddin, Akedemi Pengajian Islam)</td>
</tr>
<tr>
<td>60.</td>
<td>Jurnal Wacana Pendidikan (Maktab Perguruan Pasir Panjang Kuala terengganu)</td>
</tr>
<tr>
<td>61.</td>
<td>Jurnal Pendidikan Gerak (Maktab Perguruan Persekutuan Pulau Pinang)</td>
</tr>
<tr>
<td>62.</td>
<td>Jurnal Perumahan (Jabatan Perumahan Negara)</td>
</tr>
<tr>
<td>63.</td>
<td>Jurnal Halaman Bestari (Perbadanan Johor)</td>
</tr>
<tr>
<td>64.</td>
<td>Jurnal Ukur Bahan (Fakulti Alam Bina, UTM)</td>
</tr>
<tr>
<td>65.</td>
<td>Jurnal Ilmu Kemanusiaan (Pusat Pengajian Ilmu Kemanusiaan, USM)</td>
</tr>
<tr>
<td>66.</td>
<td>Jurnal Melewar (Maktab Perguruan Raja Melewar)</td>
</tr>
<tr>
<td>67.</td>
<td>Jurnal Fikrah (Pusat Pendidikan Persediaan, ITM)</td>
</tr>
<tr>
<td>68.</td>
<td>Jurnal Dewan Bahasa (Dewan Bahasa dan Pustaka)</td>
</tr>
<tr>
<td>69.</td>
<td>Jurnal Warisan Johor (Yayasan Wansan Johor)</td>
</tr>
<tr>
<td>70.</td>
<td>Jurnal Institut Teknologi Tun Hussein Onn (Institut Teknologi Tun Hussein Onn)</td>
</tr>
<tr>
<td>71.</td>
<td>Jurnal Pengajian Melayu (Akademi Pengajian Melayu, Universiti Malaya)</td>
</tr>
<tr>
<td>72.</td>
<td>Jurnal Sains Nuklear Malaysia (Pusat Penyelidikan Atom Tun Ismail)</td>
</tr>
<tr>
<td>73.</td>
<td>Jurnal Alam Bina (Fakulti Alam Bina, UTM)</td>
</tr>
<tr>
<td>74.</td>
<td>Jurnal Kurikulum (Pusat Perkembangan Kurikulum)</td>
</tr>
<tr>
<td>75.</td>
<td>Jurnal Kaji Sosial (Jabatan Kaji Sosial, Institut Perguruan Sultan Idris)</td>
</tr>
<tr>
<td>76.</td>
<td>Jurnal Keningau (Maktab Perguruan Keningau)</td>
</tr>
<tr>
<td>77.</td>
<td>Jurnal Maktab Perguruan rajang (Maktab Perguruan Rajang)</td>
</tr>
<tr>
<td>78.</td>
<td>Jurnal Seri Alam (Lembaga Muzium Selangor)</td>
</tr>
<tr>
<td>79.</td>
<td>Jurnal ITTHO (Institut Teknologi Tun Hussein Onn)</td>
</tr>
<tr>
<td>80.</td>
<td>Maktab Perguruan Batu Lintang (Maktab Perguruan Batu Lintang)</td>
</tr>
<tr>
<td>81.</td>
<td>Jurnal Ilmiah (Maktab Perguruan Gaya)</td>
</tr>
<tr>
<td>82.</td>
<td>Jurnal Kuliah Budaya Johor (Pejabat Kebudayaan dan Kesenian Negeri Johor)</td>
</tr>
<tr>
<td>83.</td>
<td>Jurnal BTP (Bahagian Teknologi Pendidikan, Kementerian pendidikan malaysia)</td>
</tr>
<tr>
<td>84.</td>
<td>Jurnal KISDAR (Kolej Islam Darul Ehsan)</td>
</tr>
<tr>
<td>85.</td>
<td>Jurnal P.K.P.S.M (Persidangan Kebangsaan Pengetua Sekolah Menengah)</td>
</tr>
<tr>
<td>86.</td>
<td>Jurnal Akademik UiTM Kampus Segamat (UiTM Kampus Segamat)</td>
</tr>
<tr>
<td>87.</td>
<td>Jurnal Dermatologi Malaysia (Persatuan Dermatologi Malaysia)</td>
</tr>
<tr>
<td>88.</td>
<td>Jurnal Sekolah Pengajian Islam (KUSZA)</td>
</tr>
<tr>
<td>89.</td>
<td>Jurnal Pengguna Malaysia (Jabatan Pengurusan Sumber dan Pengajian Pengguna)</td>
</tr>
<tr>
<td>90.</td>
<td>Jurnal Pendidikan Teknikal (Kementerian Pendidikan)</td>
</tr>
<tr>
<td>91.</td>
<td>Jurnal KUITHHO (KUTTHO)</td>
</tr>
<tr>
<td>No.</td>
<td>Journal Title</td>
</tr>
<tr>
<td>-----</td>
<td>--------------</td>
</tr>
<tr>
<td>92.</td>
<td>Jurnal Kerja Sosial Malaysia (Pusat Pengajian Psikologi &amp; Pembangunan Manusia)</td>
</tr>
<tr>
<td>93.</td>
<td>Jurnal Antarabangsa Teknologi Maklumat (Fakulti Teknologi dan Sains Maklumat UKM)</td>
</tr>
<tr>
<td>94.</td>
<td>Jurnal Biro Tatanegara (Bahagian Penyelidikan BTN)</td>
</tr>
<tr>
<td>95.</td>
<td>Jurnal Sejarah Selangor Darul Ehsan (Persatuan Sejarah Malaysia)</td>
</tr>
<tr>
<td>96.</td>
<td>Jurnal Psikologi dan Pembangunan Manusia (Pusat Pengajian Psikologi dan Pembangunan Manusia, UKM)</td>
</tr>
<tr>
<td>97.</td>
<td>Jurnal Pemuda (Biro Penerangan Pergerakan Pemuda UMNO)</td>
</tr>
<tr>
<td>98.</td>
<td>Jurnal Kesihatan Masyarakat (Jabatan Kesihatan Masyarakat)</td>
</tr>
<tr>
<td>99.</td>
<td>Jurnal Antarabangsa Dunia Melayu (Dewan Bahasa dan Pustaka)</td>
</tr>
<tr>
<td>100.</td>
<td>Jurnal IKSEP (Jurnal Iksep)</td>
</tr>
<tr>
<td>101.</td>
<td>Jurnal Pendidikan Institut Kimia Malaysia (Institut Kimia Malaysia)</td>
</tr>
<tr>
<td>102.</td>
<td>MIDA Perpustakaan, Indeks Rencana Jurnal (MIDA)</td>
</tr>
<tr>
<td>103.</td>
<td>Jurnal Antropologi dan Sosiologi (Antropologi dan Sosiologi, Universiti Kebangsaan Malaysia)</td>
</tr>
<tr>
<td>104.</td>
<td>Jurnal Dewan Bahasa (Dewan Bahasa dan Pustaka)</td>
</tr>
<tr>
<td>105.</td>
<td>Jurnal Veterinar Malaysia (Fakulti of Veterinary Medicine and Animal science UPM)</td>
</tr>
<tr>
<td>106.</td>
<td>Jurnal Tanah (Persatuan Pengurusan Tanah Semenanjung Malaysia)</td>
</tr>
</tbody>
</table>

**Lists of English language journals**

1. List of journal holdings (RRIM Library)
2. Journal of the Public Works Department Peninsular Malaysia (Jabatan Kerja Raya)
3. Malaysian Journal of Computer Science (Pusat Komputer Universiti Malaya)
4. The Malaysian Journal of Agricultural Economics (Malaysian Agricultural Economics Association)
5. Journal of Language Teaching, Linguistics and Literature (Universiti Kebangsaan Malaysia)
6. Journal of Bioscience (School of Biological Science, Universiti Sains Malaysia)
10. MARDI Research Journal (Bahagian Perkhidmatan Teknikal, MARDI)
11. The Medical Journal of Malaysia (Malaysian Medical Association)
15. The Malaysian Journal of Psychiatry (Fakulty of Medicine, Universiti Kebangsaan Malaysia)
16. Journal of Industrial Technology (SIRIM)
17. Journal of International Business (MEDEC, Institut Teknologi Mara)
18. Journal of Physical Science (Universiti Sains Malaysia)
20. The Journal of Wildlife and Parks (Jabatan Perlindungan Hidupan Liar & Taman Negara (PERHILITAN))
21. Architecture Journal (Dept of Architecture, Faculty of Built Environment, UTM)
## Appendix 4

Number of lecturers at public universities in Malaysia (Department of Statistics, 2001)

<table>
<thead>
<tr>
<th>No.</th>
<th>Organisation</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>University Institute of Technology MARA (UiTM)</td>
<td>1626</td>
<td>1978</td>
<td>3604</td>
</tr>
<tr>
<td>2</td>
<td>University Putra Malaysia (UPM)</td>
<td>888</td>
<td>640</td>
<td>1528</td>
</tr>
<tr>
<td>3</td>
<td>University of Technology Malaysia (UTM)</td>
<td>1042</td>
<td>479</td>
<td>1521</td>
</tr>
<tr>
<td>4</td>
<td>University of Malaya (UM)</td>
<td>877</td>
<td>746</td>
<td>1623</td>
</tr>
<tr>
<td>5</td>
<td>University of Science Malaysia (USM)</td>
<td>820</td>
<td>446</td>
<td>1266</td>
</tr>
<tr>
<td>6</td>
<td>National University of Malaysia (UKM)</td>
<td>919</td>
<td>802</td>
<td>1721</td>
</tr>
<tr>
<td>7</td>
<td>International Islamic University of Malaysia (IIUM)</td>
<td>579</td>
<td>395</td>
<td>974</td>
</tr>
<tr>
<td>8</td>
<td>Universiti Utara Malaysia (UUM)</td>
<td>480</td>
<td>420</td>
<td>900</td>
</tr>
<tr>
<td>9</td>
<td>University Malaysia Sarawak (UNIMS)</td>
<td>242</td>
<td>124</td>
<td>366</td>
</tr>
<tr>
<td>10</td>
<td>University Malaysia Sabah (UMS)</td>
<td>189</td>
<td>120</td>
<td>309</td>
</tr>
<tr>
<td>11</td>
<td>Universiti Perguruan Sultan Idris (UPSI)</td>
<td>127</td>
<td>71</td>
<td>198</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>7,789</td>
<td>6,221</td>
<td>14,010</td>
</tr>
</tbody>
</table>
Appendix 5

Clusters of Disciplines:

1. Sciences
   - Biology
   - Chemistry
   - Computer Science
   - Geographical Science
   - Math
   - Medicine
   - Physic
   - Veterinary Science

2. Art
   - Art
   - Language
   - Literature
   - Religion

3. Social Science and Humanities
   - Communication
   - Education
   - History
   - Law and Politics
   - Library & Information Science
   - Psychology
   - Social Science
   - Sociology

4. Engineering

5. Economy
   - Business & Management
   - Economy
   - Industrial Relations