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Intention to publish in open access journal: the case of Multimedia University Malaysia

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Abstract

The main purpose of this research is to identify the intention to publish in open access journals based on six factors which are perceived journal's reputation; perceived visible advantage; perceived speed and ease of publishing; perceived career benefit; perceived topical relevance; and awareness and familiarity. Using the survey research method involving 114 respondents from Multimedia University Malaysia, perceived journal's reputation; perceived visible advantage; perceived topical relevance; perceived career benefits; and awareness and familiarity have a relationship with intention to publish in open access journals. Further analysis shows that perceived visible advantage; perceived career benefits; and awareness and familiarity are the significant predictors of intention to publish in open access journals. The present study provides both a theoretical and practical contributions to understanding the predictors of intention to publish in an open access journal and should be of interest to both researchers and practitioners.

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Keywords: Open access journal; predictors; adoption; survey; Malaysia

1. Introduction

The emergence of electronic publishing has changed the landscape of scholarly publication. Open access journal (OAJ) has now become one of the popular mediums for publishing of research articles among academicians, and scholars. The term "open access" denotes free availability 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

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as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other
than those inseparable from gaining access to the internet itself (Budapest Open Access Initiative, 2002). The
primary index for all open access journals would be the Directory of Open Access Journal (DOAJ) which currently
listing around 9,158 peer-reviewed open access journal titles.

Today, open access journal has also gained its momentum by having their own impact factor and also indexed in
various databases such as Web of Science and SCOPUS. Driven by this development, the growth rate for the open
access journal has increased rapidly over the year and regarded as phenomena in today’s scholarly publishing
landscape. Academicians and scholars have shown great interest, signaling their acceptance on this mode of
publishing. One of the most highlighted advantages of open access journal is the free access to the journal content.
Unlike the traditional publishing model where users have to pay, open access journal allows free access to almost
everyone. Restrictions or barriers that are normally created through subscriptions have been totally eliminated,
thereby accelerating the pace of dissemination and creation of knowledge. Moneys that are normally used for journal
subscriptions can now be used by the libraries for other development activities. This fascinating development of the
open access journal is however not synchronized with studies focusing on its adoption among scholars. The extant
literature proof that not much research had been done. Due to this, theoretical models or frameworks explaining
adoption phenomenon among scholars is also very limited. The available studies are also limited to countries other
than Malaysia. Inspired by this scenario, this study was conducted with the aim of (i) identifying factors that will
influence scholars to publish in open access journals, (ii) identifying the strongest predictors of intention to publish
in open access journals.

2. Literature Review

Mining the literature unveiled that several studies have been done focusing on open access journal adoption.
Swan & Brown (2004) conducted a quantitative study and identified factors that influence intention to publish in
open access journal are principle of free access to all readers; ease and fast publication; larger readership; and the
believe that the article will be more frequently cited. Rowland & Nicholas (2005) found that researcher’s intention
to publish in open access journal was influenced by the journal's reputation (related with impact factor and
reputation of the editorial board); wider readership; speed and ease of publication; allows preprint and post-print
publishing; and allows authors to retain copyright. Thompson (2007), disregarding either it is a subscription based
journal or open access journal, identified factors that influence scholars’ decision to publish is a particular journal
are (i) visibility, (ii) journal impact factor, (iii) journal focus or topic, (iv) publication timelines, (v) journal
accessibility, (vi) author cost and journal governance. Among the aforementioned factors, the most influential
factor is the recognition factor such the impact factor, peer-reviewed and being indexed in well-known databases.

Xia (2010) conducted a longitudinal study (1990’s – 2008), examining the changing pattern of scholars’ attitude
towards open access journal. This study found the scholars’ attitude towards the open access journal remained
the same and these are journal prestige, unfamiliarity, publishing speed, free access, and career advantage. In a recent
study by Nariani & Fernandez (2012), found that the determinants that influence author intention to publish in open
access journal are journal reputation; capability to reach a wider readership; speed of publication; being indexed in
Scopus and Web of Science; career advancement; and journal subject scope or topical relevance. The study also
revealed that the article processing fee has a negative relationship with scholar intention. Another study by
Ellingford (2012) also found that ease of publishing, promotion and perceived quality of open access outlets as some
of the themes that influence scholar to publish in open access journals.

3. Research Framework

Figure 1 illustrates the research framework used in this study to identify the level of intention among the scholars
of Multimedia University towards publishing in open access journals and to explore the factors that influence the
scholars’ intention to publish in open access journals.
3.1. Perceived Journal Reputation

The journal's reputation is defined as a perception academic community of the journal’s position and ranking. The perceived reputation is also associated with impact factor, editorial board performance and peer-reviewed quality. Ji-Hong & Qian (2007) found that perceived journal's reputation is significantly affecting scholar intention to publish in open access journals. Similarly, study by Ji-Hong (2009) also found that journal's reputation (in term of authority) has influenced the authors’ behavior and significantly influence scholars’ intention. Nariani & Fernandez (2012) found that journal's reputation as a significant predictor of the selection of open access journal as a medium for publishing. Another study by Bjork & Holmstrom (2006) showed that journal’s prestige has a direct influence on the authors' intention to submit their manuscript. With this background, the following hypothesis is developed: **H1 - Perceived journal's reputation is a significant predictor of the intention to publish in open access journals**

3.2. Perceived Visible Advantage

Ji-Hong (2009) defines perceived visible advantage as the extent to which a scientist or scholar believes that publishing in an open access journal will enhance the visibility of his or her research. Ji-Hong & Qian (2007) found that perceived availability is significantly affecting scholars’ intention to publish and use an open access journal. A web survey conducted to 481 researchers by Mann et al. (2009) revealed that the significant determinant of intention is the capability to disseminate new findings widely and rapidly. Ji-Hong (2009) also unveiled that perceived visible advantage is one of the main predictor of intention to publish in open access journals. Another study by Nariani & Fernandez (2012) found that readership level was associated with intention to publish in open access journals. Based on the findings of the aforementioned studies, it is hypothesized that: **H2 - Perceived visible advantage is a significant predictor of the intention to publish in open access journals.**

3.3. Perceived Speed and Ease of Publishing

Perceived speed and ease of publishing is the extent to which scholar think publishing in open access journals is faster and easier than traditional subscription journal. Ji-Hong & Qian (2007) found that one of the social construct
that drive the intention of scholar to publish in open access journals is the demand for faster, wider, and more effective dissemination of research products. Nariani & Fernandez (2012) also discovered that the authors perceived turnaround time as an important factor in the choice of an open access journal. Since the open access journal is available free online, the submission and review process also are made online, thus allowing for the article to be published immediately after the peer-review stage. This was considered an important factor in influencing the intention to publish in open access journals. Bjork & Holmstrom (2006) showed that speed of publication is an important factor that will directly influence the author's intention to publish in any journal (either open access journal or subscription journal). Even though this study does not directly focusing on open access journal, but it is still applicable. Given this context, we hypothesize: H3 - Perceived speed & ease of publishing is a significant predictor of the intention to publish in open access journals.

3.4. Perceived Topical Relevance

Another factor that would influence the choice of a journal is the extent to which the journal's scope fits with the scholar's subject interest, termed as topic relevance. Ji-Hong (2009) defined the perceived topical relevance is the extent to which a scholar believes that the topic of an open access journal will be consistent with his or her academic interests. Ji-Hong & Qian (2007) found that perceived topical relevance is significantly affecting scholar intention to publish and use an open access journal. Ji-Hong (2009) also showed that perceived topical compatibility is one of the main predictor that has influenced the author to publish and adopt an open access journal. Nariani & Fernandez (2012) also found that the subject scope of the journal as an important element that influence the author's intention to publish. Consistent with the above findings, it is therefore hypothesized that: H4- Perceived topical relevance is a significant predictor of intention to publish in open access journals.

3.5. Perceived Career Benefits

Perceived career benefit is the extent to which a scholar believes that publishing in an open access journal will be beneficial in further developing his or her academic career (Ji-Hong, 2009). Most of the scholar feels that the reason for them to involve in publication is to communicate their research findings to other peer and to gain career advantage. Ji-Hong & Qian (2007) found that perceived career benefit is significantly affecting scholar intention to publish and use an open access journal. Another study by Ji-Hong (2009) also found that perceived career benefit has influenced the author behavior and significantly influence scholar intention to publish and adopt open access journal publishing. Mann et al. (2009) discovered that intention to publish in the open access journal is greatly influenced with a perceived career advantage. Nariani & Fernandez (2012) found that publishing in open access journal was not perceived as a barrier for career advancement because the granting council recognized publication in open access journals. To this effect, the next hypothesis is put forward: H5 - Perceived visible advantage is a significant predictor of intention to publish in open access journals.

3.6. Awareness and Familiarity

Ji-Hong (2009) define perceived awareness is the extent to which scholar or scientist’s belief that he or she is aware of an open access journal, based on previous experiences such as visiting the journal’s web site or publishing, reading, or citing articles from the journal. Ji-Hong (2009) found that perceived awareness has influenced the author behavior and significantly influence scholar intention to publish. Nariani & Fernandez (2012) found that author awareness of the open access journal has increased their intention to utilize the open access journal as publication medium. Some of the reasons of their awareness is through the experience as reader of open access journal and recommendation from peers. Both of these factors, have not only give awareness, but also familiarity with open access journal which in return increase the intention level to publish. Based on this premise, the last hypothesis is formulated: H6 - Awareness & familiarity is a significant predictor of intention to publish in open access journals.
4. Research Methodology

The study used a survey method with questionnaire as the instrument for data collection. The questionnaire was developed based on the instruments used by previous studies (Ji-Hong & Qian, 2007; Ji-Hong, 2009; Nariani & Fernandez, 2012). Perceptual measures in the form of statements were used for measuring each variable with a corresponding Likert scale anchored as 1 for “Strongly Disagree”; 2 for “Disagree”; 3 for “Neither Agree Nor Disagree”; 4 for “Agree” and 5 for “Strongly Agree”. The questionnaire was pre-tested with several experts and prospective respondents. Subsequently, it was pilot tested with 30 students. The results of the pilot test are illustrated in Table 1 showed that the Cronbach Alpha for all variables were well above 0.7, indicating that the questionnaire was acceptably reliable.

The population of the study was academician working in Multimedia University Malaysia. A total of 581 questionnaires was sent to the targeted academicians. After the duration of the data collection was over, a total of 121 questionnaires were returned. However, seven were found to be unusable for further analysis as they were incomplete. The remaining 114 were analyzed using IBM SPSS. The statistical analyses carried out were frequency analysis; descriptive analysis focusing mean and standard deviation; factor analysis (EFA) for assessing common method bias; correlation analysis for looking into the relationship between variables; and multiple regression for testing research hypotheses.

Table 1. Sources of measurements of variables and results of pilot test

<table>
<thead>
<tr>
<th>Variable</th>
<th>No of items</th>
<th>Sources of measurement</th>
<th>Cronbach Alpha of pilot test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Journal Reputation</td>
<td>5</td>
<td>Ji-Hong &amp; Qian (2007); Ji-Hong (2009); Nariani &amp; Fernandez (2012)</td>
<td>0.858</td>
</tr>
<tr>
<td>Perceived Visible Advantage</td>
<td>5</td>
<td></td>
<td>0.810</td>
</tr>
<tr>
<td>Perceived Speed and Ease of Publishing</td>
<td>5</td>
<td></td>
<td>0.736</td>
</tr>
<tr>
<td>Perceived Topical Relevance</td>
<td>5</td>
<td></td>
<td>0.720</td>
</tr>
<tr>
<td>Perceived Career benefits</td>
<td>5</td>
<td></td>
<td>0.660</td>
</tr>
<tr>
<td>Awareness and Familiarity</td>
<td>5</td>
<td></td>
<td>0.864</td>
</tr>
<tr>
<td>Intention to Publish</td>
<td>5</td>
<td></td>
<td>0.797</td>
</tr>
</tbody>
</table>

5. Findings

Table 2 showcases the demographic profile of the respondents. Out of 114 respondents, 63.2% were female while the remaining 36.8% were female. In terms of position, the majority indicated to be holding the position of lecturer (65.8%) while the minority were professor (2.6%).

Table 2. Demographic Profile

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>72</td>
<td>63.2</td>
</tr>
<tr>
<td>Female</td>
<td>42</td>
<td>36.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Position</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturer</td>
<td>75</td>
<td>65.8</td>
</tr>
<tr>
<td>Senior Lecturer</td>
<td>28</td>
<td>24.6</td>
</tr>
<tr>
<td>Assoc. Prof.</td>
<td>8</td>
<td>7.0</td>
</tr>
<tr>
<td>Professor</td>
<td>3</td>
<td>2.6</td>
</tr>
</tbody>
</table>

In order to identify whether the data is experiencing common method bias, Harman’s single factor test was executed. All items from all constructs under study were entered for analysis and constrained to only a single factor. The results showed that the single factor explained only 31.0%, less than the benchmark value of 50% of the total variance, implying that the collected data is free from the problem of common method variance. Accordingly reliability analysis was also performed and the results indicate that the Cronbach Alpha values are well above the cutoff value of 0.7. The recorded Cronbach Alpha values are between 0.776 and 0.918 implying that the instrument used in this study is highly reliable.

The mean scores of all variable are well above the mid value (i.e. The middle value of the Likert scale is 3), suggesting that in general, the respondents of the study inclined to agree with the listed characteristics which are
journal reputation; visible advantage; speed and ease of publishing; and topical relevance (refer Table 3). They also agreed that open access publishing provides career benefits. They also indicated to be fully aware and familiar with open access journal. In addition, they respondents also indicated that publishing in an open access journal will provide career benefits. The mean value for intention to publish is also bigger than three, suggesting that the respondents have strong intention to publish their article on open access journal. The results of the correlation analysis suggest that, except for journal reputation, other independent variables have a moderate relationship with intention to publish. This finding denotes that each independent variable by itself, has some influence with intention to publish. The strongest relationship is for the variable perceived career benefit (r = 0.546, p < 0.01), followed by perceived visibility (r = 0.430, p < 0.01).

Regression analysis was performed to test the proposed hypotheses and the results are displayed in Table 4. The F statistics produced (F = 11.781, p < 0.01), thus confirming the fitness for the regression model. The coefficient of determination, R2 was 0.40 which suggests that the six factors can significantly account for 40.0% in the scholars’ intention to publish in open access journals. However, only three factors were found to be the significant predictors which are perceived visibility; perceived career benefits; awareness and familiarity. Based on this results the established hypotheses H2, H5 and H6 are fully supported, while the remaining (H1, H3 and H4) is not supported.

### Table 3. Mean, Standard Deviation and Correlation Analysis

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[1]</td>
<td>Visible</td>
<td>0.870</td>
<td>4.1965</td>
<td>0.54916</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[2]</td>
<td>Speed</td>
<td>0.781</td>
<td>3.6281</td>
<td>0.61190</td>
<td>0.199*</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[3]</td>
<td>Reputation</td>
<td>0.884</td>
<td>3.4842</td>
<td>0.69021</td>
<td>0.386**</td>
<td>0.104</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[4]</td>
<td>Relevance</td>
<td>0.776</td>
<td>3.8825</td>
<td>0.52936</td>
<td>0.497**</td>
<td>0.388**</td>
<td>0.502**</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[5]</td>
<td>Benefit</td>
<td>0.918</td>
<td>3.6351</td>
<td>0.74845</td>
<td>0.437**</td>
<td>0.211**</td>
<td>0.589**</td>
<td>0.444**</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>[6]</td>
<td>Familiarity</td>
<td>0.874</td>
<td>3.5930</td>
<td>0.75066</td>
<td>0.286**</td>
<td>0.215*</td>
<td>0.237*</td>
<td>0.499**</td>
<td>0.233*</td>
<td>1.000</td>
</tr>
<tr>
<td>[7]</td>
<td>Intention</td>
<td>0.886</td>
<td>3.4246</td>
<td>0.76431</td>
<td>0.430**</td>
<td>0.073</td>
<td>0.378**</td>
<td>0.366**</td>
<td>0.546**</td>
<td>0.373**</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).

### Table 4. Results of Regression Analysis

<table>
<thead>
<tr>
<th>Variables in the equation</th>
<th>b</th>
<th>SEb</th>
<th>Beta (β)</th>
<th>t</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.302</td>
<td>0.544</td>
<td>0.555</td>
<td>0.580</td>
<td></td>
</tr>
<tr>
<td>Visible</td>
<td>0.276</td>
<td>0.125</td>
<td>0.198</td>
<td>2.197</td>
<td>0.030</td>
</tr>
<tr>
<td>Speed</td>
<td>-0.131</td>
<td>0.105</td>
<td>-0.105</td>
<td>-1.298</td>
<td>0.197</td>
</tr>
<tr>
<td>Reputation</td>
<td>0.015</td>
<td>0.110</td>
<td>0.014</td>
<td>0.136</td>
<td>0.892</td>
</tr>
<tr>
<td>Relevance</td>
<td>-0.019</td>
<td>0.153</td>
<td>-0.013</td>
<td>-0.121</td>
<td>0.904</td>
</tr>
<tr>
<td>Benefit</td>
<td>0.432</td>
<td>0.100</td>
<td>0.423</td>
<td>4.315</td>
<td>0.000</td>
</tr>
<tr>
<td>Familiarity</td>
<td>0.248</td>
<td>0.088</td>
<td>0.244</td>
<td>2.810</td>
<td>0.006</td>
</tr>
</tbody>
</table>

R = 0.632
R² = 0.400
F = 11.781
P value of F = 0.000
6. Discussion

The present study provides both a theoretical and practical contributions to understanding the determinants of intention to publish in an open access journal. Out of the six investigated independent variables, five variables were found to have some relationship with intention to publish. Specifically, these variables are perceived journal's reputation; perceived visible advantage; perceived topical relevance; perceived career benefits; and awareness and familiarity. Contradict to our expectation, it turned out that perceived speed and ease of publishing has no relationship with intention to publish. While the respondents agreed that publishing in open access offers quick and fast publication, it is however not a key driver that moves them toward publishing. Two other variables, perceived reputation (tested as H1) and perceived topical relevance (tested as H4) are also found to be insignificant predictors. This result suggests that the absence of perceived speed and ease of publishing; perceived reputation and perceived topical relevance will not affect significantly on their intention to publish in an open access journal.

The perceived career benefit is found to be the strongest predictor ($\beta = 0.423$, $p < 0.01$). The result suggests that the higher is the perceived career benefits, the higher would be the intention to publish in open access journals. This finding is consistent with that of Ji-Hong & Qian (2007); Ji-Hong (2009); and Nariani & Fernandez (2012). The implication of this result is that the authorities concerned, such as the top management of the university should initiate efforts to increase the perceived benefits of publishing in open access journals. This can be done through continuous campaign promoting the benefits of open access publication.

The second predictor that is found to have a profound effect on intention to publish open access journal is awareness and familiarity ($\beta = 0.244$, $p < 0.01$). This finding is in tandem with Ji-Hong (2009) and Nariani & Fernandez (2012) and suggests that the higher is the awareness and familiarity of the scholars regarding open access journal, the higher is their intention to publish their research findings in that medium. This finding should alert the management of the universities on the importance of making their academicians, well informed about open access journals. Perhaps, activities geared towards promoting and exposing open access journal will make these academicians more aware and familiar with open access journal and this in turn would further intensify their inclination to publish.

The third significant predictor discovered in this study is perceived visible advantage ($\beta = 0.198$, $p < 0.05$). This finding further support previous research by Ji-Hong & Qian (2007); Ma et al. (2009); Ji-Hong (2009); and Nariani & Fernandez (2012). As pointed out by these authors, wider readership is just one of the important reasons by scholars to publish their research findings in open access journals. Nonetheless, this finding suggests that as the perception on visible advantage increases, the possibility for the academician will sparingly increase.

7. Conclusion

The purpose of this article has been to explore factors that influence the intention of users to publish in open access journals. To achieve this purpose, an empirical based framework mainly drawn from previous empirical studies has been developed. The results of the analyses suggest perceived journal's reputation; perceived visible advantage; perceived topical relevance; perceived career benefits; and awareness and familiarity have a relationship with the intention to publish in open access journals. Further analysis shows that perceived visible advantage; perceived career benefits; and awareness and familiarity are the truly significant predictors.

While this study has achieved its objectives, it is still subject to several limitations which are mainly associated with the chosen data analysis and the sample size. In this study, non-response bias was not assessed. Secondly, the small sample size involved in this study has prevented the authors from using more reliable analysis such as Structural Equation Modeling. Future study should not only address this issue, but also consider extending the framework by integrating other independent variables.
Acknowledgements

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References


