

# Social Media Usage for Informal Learning in Malaysia: Academic Researcher Perspective

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## ABSTRACT

Social media (SM) has gained a huge acceptance from all and sundry. A huge potential exists for academic researchers in the use of SM for intellectual exercise. Informal learning (IL) has redefined the entire learning process, creating a new dawn from the formal learning rigid structures. However, there is lack of research on why some researchers fail to accept SM for IL. Therefore, the aim of this paper is to explore the use of SM for IL, barriers, benefits, and effect of individual factors. For this reason, a thorough literature review was conducted, and items were extracted from prior studies. Using a survey, a total of 170 responses were received from academic researchers using paper-based questionnaire. The authors discovered from the survey that lack of encouragement, lack of quality information, threat to research material are the barriers affecting SM use. Furthermore, they found that the benefits of using SM by academic researchers are to communicate with peers, share knowledge, and enhance collaboration. Thus, these findings will help stakeholders in encouraging the use of SM for IL.

## KEYWORDS

Academic Researcher, Barriers, Benefits, Informal Learning, Research University, Social Media

## 1. INTRODUCTION

The emergence of SM such as YouTube and Facebook has made academic researchers consider its usage in several academic activities. Facebook has created an avenue for academic researchers to connect, engage, and share ideas. YouTube also provides a chance for academic researchers to disseminate novel finding using multimedia, and also improve their understanding of areas of expertise. The widespread popularity of SM has led to its acceptance and usage in the academic environment (Jaffar, 2012; Kirschner & Karpinski, 2010; Krauskopf, Zahn, & Hesse, 2012; Manasijević, Živković, Arsić, & Milošević, 2016; Moran, Seaman, & Tinti-Kane, 2011). Facebook was founded in 2004 with one million users which has now increased to two billion users (Facebook, 2018). Furthermore,

DOI: 10.4018/IJICTE.2021040107

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YouTube came into existence in 2005 with eight million users. YouTube now commands followership of 1.32 billion subscribers (Statistic Brain Research Institute, 2018). However, the low rate of SM acceptance for IL calls for investigation (Bullinger et al., 2011; Church & Salam, 2010).

This paper empirically examines the barriers and benefits of using SM for IL in Universiti Teknologi Malaysia (UTM) being one of the foremost research universities in Malaysia. Altbach (2009) is of the view that research universities are of paramount importance to developing nations for them to effectively compete in the knowledge economy (Madhusudhan, 2012). He et al. (2009) stated innovations that make it easy to transfer knowledge and maximize collaboration among researchers play a major role in research growth and productivity. Researchers have shown that productivity in research output will eventually lead to favorable rankings in the global university rankings (Da Silva & Davis, 2011; Liu & Cheng, 200). Therefore, sufficient productivity among researchers is usually determined by the level of collaboration and interaction. Hence, the ability of researchers to produce quality research output is highly influenced by the creation of a collaborative environment (Abramo et al., 2013). Conversely, the use of SM as a means of communication, interaction, and collaboration will effectively improve research output, thereby resulting in favorable ranking among other universities. The paper aims to bring forth the barriers and benefits of using SM for IL among academic researchers in Malaysia. The main objectives of the study are:

1. To discover the level of usage of SM in IL by academic researchers.
2. To explore the role of gender, age, position, academic discipline, and experience on SM for IL use by academic researchers.
3. To identify specialized SM tools for IL among researchers.
4. To identify the benefits of using SM for IL by academic researchers.
5. To identify the barriers affecting the use of SM for IL by academic researchers.

This paper is organized as follows: prior studies were reviewed in section 2, followed by the research methodology in Section 3. The data analysis is carried out in section 4. Section 5 provides a discussion of results and the Conclusion and limitations are discussed in Section 6.

## **2. LITERATURE REVIEW**

There is a lack of research on the use of SM for IL (Manca, & Ranieri, 2017). Subsequently, previous reviews on SM for IL and their limitations were presented in this section. Social Networking Sites (SNSs) such as Facebook, has revolutionized the Internet to be a social platform which supports IL and information dissemination effectively (Rashid & Rahman, 2014). The usage of SNSs in academia has been there for quite some time now. An additional number of researches in past years has explored the pedagogical potential of SNSs and its effectiveness as a learning tool. The outcome showed that a greater number of the participants use YouTube and Facebook for communication and collaboration not necessarily for IL (Nentwick & König, 2014). The theoretical background of this study is based on the Constructionist Theory and Technology Acceptance Model (TAM). TAM is the Information Systems theory to explain and measure the acceptance of new technology such as social media. The experience-based knowledge building is referred to as the constructionist theory. The learning through conditions and culture is social constructivism. Knowledge building through interaction and collaboration is cognitive constructivism. The research community believes that social media technologies affirm constructivism (Catherine McLoughlin, 2008; Schroeder, Minocha, & Schneider, 2010).

The concept of IL plays a growing role in how individuals think of everyday learning. If there is a need to know or learn something, individuals may look it up in a book, look it up online, or contact someone for support. IL transpires outside the normal school settings or other educational

programs (Clough, 2010; Smaller, 2005). This implies that IL means a form of learning without stringent structures of time and space (Schöndienst, V., Krasnova, H., Günther, O., Riehle, D., & Schwabe, G, 2011). It was observed that IL is defined by the activities of peoples, and not defined by institutional settings or any standard curricula. In that direction, IL is not directed by any planned or structured objectives, time, or learning support (Behringer & Coles, 2003). A survey was conducted by Lupton (2014) on 711 researchers to examine how they integrate SM in their research activities. The majority of the respondents in the research assert that they use SM for their daily research work. Another study was also conducted by Nature Publishing Group (2014) that explores the SM tool used by researchers. It was discovered that 55% of the respondents claimed that they mostly use Facebook to carry out their research. Furthermore, Thelwall & Kousha (2014) explores the usage of Facebook among different age groups. They found that females and younger populations are frequent users. This finding was supported by Poellhuber (2013) who discover gender and age differences in SM usage. Research conducted by Jordan (2014) highlights the structural difference of SM across disciplines. The investigation found that disciplines played a major role in SM usage. Bullinger et al. (2011) noted that a good number of SM features are adopted based on disciplines. As endorsed by Jamali, Russell, Nicholas, & Watkinson (2014), differences exist among SM membership rates based on disciplines. Given the thorough review carried out by the researchers, it can be deduced that researchers mainly focused on the influence of SM rather than the benefits and barriers of these tools as they relate to academic researchers. Thus, the major aim of this research is to identify the barriers and benefits of SM usage among academic researchers in Malaysia.

### **3. METHODOLOGY**

This study adopts the causal approach to investigate the cause and effects of the benefits and barriers (Alsabawy et al., 2013). A survey method was employed in this study to collect data. The questionnaire administered consists of twelve (12) questions are adapted from (Jamali, Russell, Nicholas, & Watkinson, 2014; Madhusudhan, 2012; Rowlands, Nicholas, Russell, Cauty, & Watkinson, 2011; Schöndienst, Krasnova, Günther, & Riehle, 2011) and questioner items are already validated in mentioned studies. The convenience sample was used to examine the barriers and benefits of using SM for IL in Malaysia. The study sample explored different samples; ranging from Postgraduate Students, Research Fellow, Academic Staff in UTM. A total of 170 responses were collected using the paper-based and online-based questionnaire. The data collection process began in February 2018 and lasted for one month. Statistical Package for Social Science for Windows (SPSS for Windows Version 25.0) was used in analyzing the data. The level of significance at a probability level of 5% was employed.

### **4. RESEARCH FINDINGS**

The study indicates that the majority of the respondents were male (63.5%) and also 36.5% were female, respectively. Showing a justifiable representation of members of both sexes in academia (see Table 1). A greater percentage of the respondents are young below the age of 25 to 30 years (34.7%). In terms of position, 106 (62.4%) of the respondents were Postgraduate students (Ph.D. and Master). Table 1 indicates that a large percentage of the respondents were found not to use SM (62%, n=106). Whilst, a lesser number of the respondents (38%, n=64) have experience in using SM for IL.

#### **4.1 Gender and Social Media Usage for Informal Learning**

The effect of gender in SM acceptance is investigated in the present study. An independent sample T-test was adopted to examine the difference in gender and use of SM for IL (see Table 2). The results show that the F-statistics is 9.016 and the related p-value is 0.115. Given that the p-value is greater than 0.05, the researcher's gender exhibits no effect on the use of SM. All genders exhibit the

**Table 1. Characteristics of respondents**

|                                                                               | Users |       | Non-Users |       | Total |       |
|-------------------------------------------------------------------------------|-------|-------|-----------|-------|-------|-------|
|                                                                               | n     | %     | n         | %     | n     | %     |
| <b>Gender</b>                                                                 |       |       |           |       |       |       |
| Male                                                                          | 45    | 26.4% | 63        | 37.1% | 108   | 63.5% |
| Female                                                                        | 19    | 11.2% | 43        | 25.3% | 62    | 36.5% |
| <b>Age</b>                                                                    |       |       |           |       |       |       |
| Less than 25-30 years                                                         | 19    | 11.2% | 40        | 23.5% | 59    | 34.7  |
| 31-35                                                                         | 14    | 8.2%  | 16        | 9.4%  | 30    | 17.6  |
| 36-40                                                                         | 13    | 8.8%  | 18        | 9.4%  | 31    | 18.2  |
| 41-45                                                                         | 11    | 6.5%  | 11        | 6.5%  | 22    | 12.9  |
| More than 45                                                                  | 7     | 4.1%  | 21        | 12.4% | 28    | 16.5  |
| <b>Position</b>                                                               |       |       |           |       |       |       |
| Academic Staff<br>(Lecturer, Senior Lecturer, Associate Professor, Professor) | 19    | 11.2% | 33        | 19.4% | 52    | 30.6% |
| Research Fellow                                                               | 5     | 3%    | 7         | 4%    | 12    | 7%    |
| Postgraduate Student                                                          | 40    | 23.5% | 66        | 38.9% | 106   | 62.4% |
| <b>Experience as a researcher</b>                                             |       |       |           |       |       |       |
| less than 1 year                                                              | 6     | 3.5%  | 14        | 8.2%  | 20    | 11.8  |
| 1-3 years                                                                     | 18    | 10.6% | 35        | 20.6% | 53    | 31.2  |
| 3-5 years                                                                     | 15    | 8.8%  | 25        | 14.7  | 40    | 23.5  |
| 5-10 years                                                                    | 13    | 7.6%  | 14        | 8.2   | 27    | 15.9  |
| More than 10 years                                                            | 12    | 7.1%  | 18        | 10.6  | 30    | 17.6  |

**Table 2. T-test for the association between gender and Use of SM for IL**

|                         | Levene-Test of Equal Variance T-test for Equal Means |              |        |         | Sig(2-sided) |
|-------------------------|------------------------------------------------------|--------------|--------|---------|--------------|
|                         | F                                                    | Significance | T      | df      |              |
| Variances are equal     | 9.016                                                | 0.003        | -1.428 | 168     | 0.155        |
| Variances are not equal |                                                      |              | -1.452 | 140.182 | 0.149        |

same attraction to technology use. This contradicts previous studies that indicate a strong impact of gender on the use of SM for IL (Thelwall & Kousha, 2014). This finding could be attributed to the nature of the academic environment where both male and female academics exhibit similar features in the use of technology. The finding is consistent with (Manca & Ranieri, 2017; Ja-mali et al., 2014).

## 4.2 Age and Use of Social Media for Informal Learning

In investigating the effect of the age difference and SM use for IL, a one-way ANOVA was employed. The Tukey's HSD Post-hoc test was carried out to identify if there exists any difference between age groups in terms of SM for IL use. Table 3 present the result of the ANOVA analysis. The findings showed that there is no effect of age difference on SM for IL use ( $p=0.256$ ).

## 4.3 Position and Use of Social Media for Informal Learning

Academic positions are believed to influence the acceptance of SM for IL. On investigating the effect of academic positions and SM use (see Table 4), it shows a strong effect ( $p=0.947$ ). Tukey HSD test is carried out to ascertain the group that creates the difference. This result showed that there exists a strong effect between users and non-users of SM ( $p=0.024$ ). This indicates a strong difference between student and re-searchers ( $p=0.045$ ). The findings in this study showed that position has a strong impact on SM use for IL. This result is expected as most of the respondents are postgraduate students. The findings are consistent with that of (Manca & Ranieri, 2017).

## 4.4 Discipline and Use of Social Media for Informal Learning

A key question as regards SM use for IL is the effect of academic discipline, which was assessed with the help of ANOVA. Table 5 present the users and non-users of SM for IL according to disciplines.

ANOVA was employed to assess the relationship between discipline and SM for IL use (see Table 6). There exist no effect of discipline on SM use for IL ( $p=0.499$ ). This contradicts previous

Table 3. Simplified ANOVA for age and use of SM for IL

|                    | Sum of Square | df  | Square Means | F     | Significance |
|--------------------|---------------|-----|--------------|-------|--------------|
| Between the groups | 1.2594        | 4   | 0.315        | 1.344 | 0.256        |
| Within the groups  | 38.646        | 165 | 0.234        |       |              |
| Total              | 39.906        | 169 |              |       |              |

Table 4. ANOVA for position and Use of SM for IL

|                         | Sum of Square   | df                   | Square Means | F     | Significance |
|-------------------------|-----------------|----------------------|--------------|-------|--------------|
| Between the groups      | 0.026           | 2                    | 0.013        | 0.054 | 0.947        |
| Within the groups       | 39.880          | 167                  | 0.239        |       |              |
| Total                   | 39.906          | 169                  |              |       |              |
| Tukey HSD Post-hoc test |                 |                      |              |       |              |
| Position(I)             | Position(J)     | Mean difference(I-J) | Std. Error   |       | Significance |
| Academic Staff          | Research Fellow | 0.051*               | 0.157        |       | 0.943        |
| Research Fellow         | Academic Staff  | -0.051*              | 0.157        |       | 0.943        |
| Postgraduate Student    | Academic Staff  | -0.012*              | 0.083        |       | 0.989        |

\*The mean difference is significant at the 0.05 level.

**Table 5. Use and non-use of SM for IL in research by narrow subject discipline**

| Use Social Media for Informal Learning in Research | Yes           | No            |
|----------------------------------------------------|---------------|---------------|
| Faculty                                            |               |               |
| Faculty of Civil Engineering                       | 62.50%        | 37.50%        |
| Faculty of Bioscience and Medical Engineering      | 37.50%        | 62.50%        |
| Faculty of Computing                               | 37.50%        | 62.50%        |
| Faculty of Electrical Engineering                  | 38.90%        | 61.10%        |
| Faculty of Chemical Engineering                    | 27.30%        | 72.70%        |
| Faculty of Mechanical Engineering                  | 28.60%        | 71.70%        |
| Faculty of Geoformation and Real Estate            | 55.60%        | 44.40%        |
| Faculty of Education                               | 38.90%        | 61.10%        |
| Faculty of Management                              | 40.00%        | 60.00%        |
| Faculty of Science                                 | 23.50%        | 76.50%        |
| Faculty of Islamic Civilization                    | 50.00%        | 50.00%        |
| <b>All disciplines</b>                             | <b>37.60%</b> | <b>62.40%</b> |

**Table 6. Simplified ANOVA for discipline and Use of SM for IL**

|                    | Sum of Square |     | df | Square Means | F    | Significance |
|--------------------|---------------|-----|----|--------------|------|--------------|
| Between the groups | 2.245         | 10  |    | .225         | .948 | .499         |
| Within the groups  | 37.661        | 159 |    | .237         |      |              |
| Total              | 39.906        | 169 |    |              |      |              |

studies that indicate a strong impact of discipline on SM use for IL (Jordan, 2014; Jamali, Russell, Nicholas, & Watkinson, 2014; Sugimoto, 2017).

#### 4.5 Experience and Use of Social Media for Informal Learning

Figure 1 presents the duration of SM use for IL by researchers. Considering the usage duration, a large part of the respondents (73.4%, n=47) indicate a usage duration of more than 2 years, this is followed by 21.9% that are using SM for about 1-2 years, 1.6% indicate from 7 months to a year, and 3.1% for less than 6 months. Prior studies have shown the effect of experience on technology use. However, the ANOVA result in this study (see Table 7) indicate a lack of effect of experience on SM use for IL ( $p=0.379$ ). According to Nysveen & Pedersen (2016), this finding could be attributed to the emergence of technology and the user's lack of experience.

#### 4.6 Use of Specialized Social Media for Informal Learning

Academic researchers are the major components of academia. The importance of SM for IL is to help researchers discover their potential and have a global reach. As presented in Figure 2, respondents with more than one SM membership were required to indicate the most frequently used SM tool. A large part of the respondent (30.20%) indicates Facebook as the most utilized SM, followed by YouTube (26.56%), Wikipedia (17.16%), LinkedIn (12.50%), other (5.76%), Blogs (4.18%) and

Figure 1. SM for IL Usage (N=64)

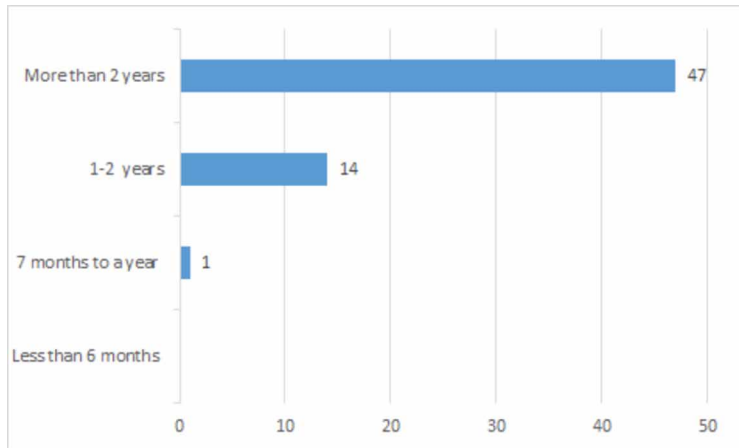
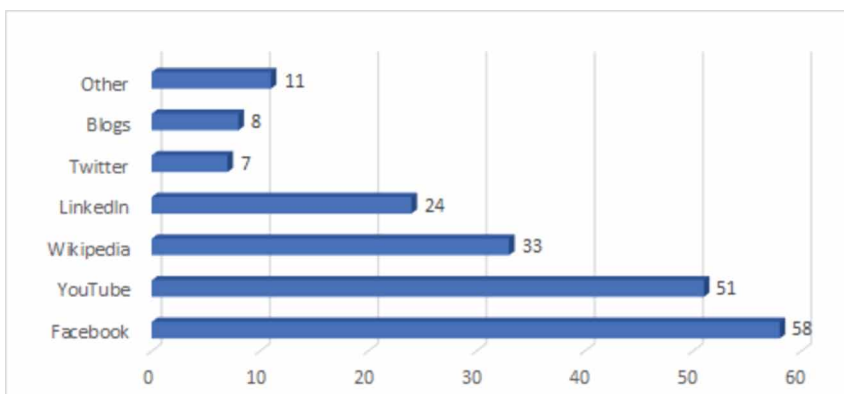


Table 7. ANOVA for experience and Use of SM for IL

|                    | Sum of Square | df  | Square means | F     | Significance |
|--------------------|---------------|-----|--------------|-------|--------------|
| Between the groups | 1.009         | 4   | .252         | 1.056 | 0.379        |
| Within the groups  | 48.972        | 205 | .239         |       |              |
| Total              | 49.981        | 209 |              |       |              |

Figure 2. Use of specialized SM for IL (multiple answers are permitted (N=64))



Twitter (3.64%). The finding in this study is consistent with prior studies (Al-Aufi et al., 2015). They found that a larger percentage of respondents used Facebook and YouTube. It should be known that certain respondents are using LinkedIn for IL. However, the present study does not consider LinkedIn because it serves as a professional social network (business-oriented).

**Table 8. Barriers associated with use of SM for IL by academic researchers**

| Barriers                                                                        | Respondents | Percentage |
|---------------------------------------------------------------------------------|-------------|------------|
| There is a lack of encouragement from colleagues on the need to use SM for IL.  | 70          | 66.04%     |
| I don't use SM for IL because most information obtained is a lack of quality.   | 63          | 59.43%     |
| I don't use SM for IL because it is a threat to my research materials and data. | 61          | 57.55%     |
| I don't feel any necessity to use SM for IL.                                    | 61          | 57.55%     |
| I don't have time to use SM for IL.                                             | 56          | 52.83%     |

#### 4.7 Barriers to Using Social Media for Informal Learning

Barriers that impede academic researchers from using SM for IL were discovered from the survey carried out by the researcher (see Table 8). The greatest barrier as indicated by the respondents was a lack of encouragement from colleagues on the need to use SM for IL (66.04%, n=70). This barrier is closely accompanied by lack of quality of information (59.43%, n=63), threat to research materials and data (57.55%, n=61), lack of necessity to use SM for IL (57.55%, n=61) and finally time constraints (52.83%, n=56).

#### 4.8 Benefits of Using Social Media for Informal Learning by Academic Researchers

The emergence of SM has paved the way for a new forum for collaboration among researchers that enable them to share ideas and resources. The benefits of SM for IL as indicated by the respondents are presented in Table 9. The findings showed that researchers need to keep up to date is the most common of SM (81.25%), communicating my research with other colleagues (81.25%), facilitating interaction with my research partners (81.25%), creating a global network for sharing my research with other colleagues (79.68%), sharing my findings with another researcher faster (78.12%), knowledge sharing with other researchers (75.00%), communicate with more experienced researchers in my field (67.18%), encourage collaboration with my co-researchers (64.06%), get input about my research from other researchers (60.93%), communicate my research method with other researchers (57.81%), share my research findings with other researchers (56.25%), encourage collaboration with my research respondents to collect the required data (53.12%), communicate with other researchers to my literature review better (51.56%), and seek for collaborators for my research projects (50.00%).

### 5. DISCUSSION

The first objective of the study was to find the usage of SM in IL in the academic community. From the overall findings of this research, it has shown that the majority of the respondents do not use SM for IL. (Al-Sabaawi and Dahlan, 2018). From the problem confirmation survey, it was found that 62.40% of the 170 respondents do not use social media use for informal learning as against 37.60% as shown in Figure 1. Thus, validating the claim that few academic researchers use social media use for informal learning. The second objective was to test the moderating effects of gender, position, and experience. All the effect factors such as gender, age, position, discipline, and experience exhibit no significant impact on the use of SM for IL by academic researchers. This implies that these factors do not influence the academic researcher's behavior as regards the use of SM for IL as demonstrated in section 4.1-4.5. Thirdly, the objective was to find the SM tools for learning in researchers. Figure 2 demonstrates that the most popular SM in a research setting is Facebook and YouTube. On the other hand, Wikipedia, LinkedIn, and Tweeter is utilized more for social activities as compared to

**Table 9. Benefits of using SM for IL by academic researchers**

| Benefits                                                                                                                 | Respondents | Percentage |
|--------------------------------------------------------------------------------------------------------------------------|-------------|------------|
| I use SM to communicate with other researchers to keep up to date with the new information related to my research field. | 52          | 81.25%     |
| I use SM to communicate about my research with my research partners.                                                     | 52          | 81.25%     |
| I use SM to facilitate interaction with my research partners.                                                            | 52          | 81.25%     |
| I use SM to communicate about my research with researchers globally.                                                     | 51          | 79.68%     |
| I use SM to exchange knowledge more quickly with other researchers.                                                      | 50          | 78.12%     |
| I use SM to share knowledge with other researchers.                                                                      | 48          | 75.00%     |
| I use SM to communicate with renowned experts in my research field.                                                      | 43          | 67.18%     |
| I use SM to facilitate collaboration with my researcher partner.                                                         | 41          | 64.06%     |
| I use SM to get feedback about my research from other researchers.                                                       | 39          | 60.93%     |
| I use SM to discuss my research method with other researchers.                                                           | 37          | 57.81%     |
| I use SM to discuss my research finding with other researchers.                                                          | 36          | 56.25%     |
| I use SM to facilitate collaboration with my research respondents to collect the required data.                          | 34          | 53.12%     |
| I use SM to discuss with other research in conducting a literature review.                                               | 33          | 51.56%     |
| I use SM to find collaborators for my research projects.                                                                 | 32          | 50.00%     |

Note: multiple answers are permitted (No. of user=64).

informal learning. Perhaps the social media advertisements and digital marking attract more to use Facebook and YouTube as compared to other SM.

The fourth objective was to identify the benefits of SM for IL. Table 9 represents the benefits the research community perceived from SM. Some of the respondents who have experienced the use of SM believe that the most common benefit derived is as follows: keeping up to date, encourage interaction with research partners, share my research with researchers globally, sharing my research activities with other researchers, exchange and share knowledge better and faster with other researchers. The greatest benefit of SM is to learn from specialized persons and make a network of collaborators. The younger respondents are happier than older and rate SM a highly important learning tool. Finally, the major barrier as represented in Table 8 to the use of SM for IL by academic researchers is as follows: the absence of support from colleagues, most information lack substance, and lack of security of information leading to serious threats to research work, lack of any need to use SM for IL and time constraints. To this extent, the overall findings in this research paper will help policymakers to tackle these identified barriers and maximize the highlighted benefits of using SM for IL to the research community.

## 6. CONCLUSION AND LIMITATIONS

The use of SM as a means of communication, interaction, and collaboration effectively improves informal learning and research output, thereby resulting in favorable ranking among other universities. Existing research did not reveal that the learning potential of SM and inhibitors of SM in informal learning. The paper aims to bring forth the barriers and benefits of using SM for IL among academic

researchers in Malaysia. Social media are one of the choices that researchers consider to examine domain or adjacent research areas. SM plays a vital role in lower-order informal learning and enhances knowledge outcomes. However, the general perception of researchers is not in favor of social media to be a serious learning platform. Therefore, to achieve the actual learning benefits of SM the perception of the scholars plays a vital role. Similarly, some researchers believe that information overload on SM has a negative influence on informal learning.

In conclusion, decision-makers and policymakers should encourage the use of SM for IL to overcome the identified barriers in this study, and to maximize the benefit associated with SM use for IL by academic researchers. This will greatly help to curtail the immense burden on the limited resources in our institutions. Additionally, encouraging academic researchers to use SM for IL will greatly influence their productivity in the research arena. This will also facilitate interaction and collaboration with a wide range of other researchers globally eventually leading to a higher ranking for the university in particular and national development for the country in general. Even though the findings of this study have a lasting impact, they are not without inadequacies. Firstly, one university provided the sample for this study (UTM), generalizing its findings to the whole population must be done with caution. The research used a quantitative method; other research in the future should try to use alternative methods as this might provide interesting results. The data used was obtained from one Research University. Future studies should consider other research universities in Malaysia to extend the finding of this study.

## **ACKNOWLEDGMENT**

The authors are very grateful to the University of Mosul/ College of Administration & Economics for their provided facilities, which help to improve the quality of this work.

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## APPENDIX: PROBLEM CONFIRMATION SURVEY

Welcome to the Acceptance of Social Media for Informal Learning Survey!

**Social Media:** Refers to online technologies that enable multiple users to interact, generate content, and collaborate in real time or through postings such as images, text, audio, or video, viewed later. Some examples of social media are Facebook and Twitter.

**Informal Learning:** Refers to a form of learning that is not professionally organized or highly structured and occurs outside of the formal learning framework for the purpose of acquiring required knowledge or skills.

**Informal Learning Using Social Media:** Can be considered as the use of social media for communication, interaction and collaboration in supporting a form of learning that is not organized or highly structured. This process leads to knowledge and skills acquisition.

This questionnaire is to find out about the acceptance of social media for informal learning among the academic researcher.

**Informal Learning Using Social Media Based on Academic Researcher:** Can be considered as the use of social media for communication, interaction and collaboration in supporting a form of learning that is not organized or highly structured related in conducting the academic research. This process leads to enhancement of knowledge and skills about the research.

Please complete all following questions by inserting tick (✓) the boxes or by writing in the spaces provided.

**Table 10. General questions**

|                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Gender<br>Male <input type="checkbox"/><br>Female <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                           |
| 2. Age<br>Less than 24 – 30 years <input type="checkbox"/><br>31 – 35 years <input type="checkbox"/><br>36 – 40 years <input type="checkbox"/><br>41 – 50 years <input type="checkbox"/><br>More than 45 years <input type="checkbox"/>                                                                                                                                                                                 |
| 3. Level of education<br>Postdoctoral <input type="checkbox"/><br>PhD <input type="checkbox"/><br>Master <input type="checkbox"/>                                                                                                                                                                                                                                                                                       |
| 4. Level of education<br>Professor <input type="checkbox"/><br>Associate Professor <input type="checkbox"/><br>Senior Lecturer <input type="checkbox"/><br>Lecturer <input type="checkbox"/><br>Research Fellow <input type="checkbox"/><br>Research Assistant <input type="checkbox"/><br>Postdoctoral <input type="checkbox"/><br>Student <input type="checkbox"/><br>Other (please specify) <input type="checkbox"/> |

*continued on following page*

**Table 10. Continued**

|                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5. Which faculty do you belong to?                                                                                                                                                                                                                                                                                                                                                                                                    |
| 6. How long have you been working as a researcher?<br>Less than 1 year <input type="checkbox"/><br>1-3 years <input type="checkbox"/><br>3-5 years <input type="checkbox"/><br>5-10 years <input type="checkbox"/><br>More than 10 years <input type="checkbox"/>                                                                                                                                                                     |
| 7. Do you use social media for informal learning?<br>Yes <input type="checkbox"/><br>No <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                      |
| 8. How long have you been using social media for informal learning?<br>Less than 6 months <input type="checkbox"/><br>7 months to a year <input type="checkbox"/><br>1-2 years <input type="checkbox"/><br>More than 2 years <input type="checkbox"/>                                                                                                                                                                                 |
| 9. Which of the following social media do you use frequently for informal learning? (Multiple answer are permitted).<br>Facebook <input type="checkbox"/><br>Twitter <input type="checkbox"/><br>YouTube <input type="checkbox"/><br>Wikipedia <input type="checkbox"/><br>LinkedIn <input type="checkbox"/><br>Blogs <input type="checkbox"/><br>Myspace <input type="checkbox"/><br>Other (please specify) <input type="checkbox"/> |

Instruction: Please Circle the number that best matches your view of the statement (which fall between 1= Strongly Disagree to 5= Strongly Agree).

**Table 11. Benefits of using SM for IL by academic researchers**

| 10- How do you use social media for informal learning? |                                                                                                                                    | 1 | 2 | 3 | 4 | 5 |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|
| a.                                                     | I use social media to communicate about my research with researchers globally.                                                     |   |   |   |   |   |
| b.                                                     | I use social media to communicate about my research with my research partners.                                                     |   |   |   |   |   |
| c.                                                     | I use social media to communicate with the renowned experts in my research field.                                                  |   |   |   |   |   |
| d.                                                     | I use social media to communicate with others researcher to keep up to date with the new information related to my research field. |   |   |   |   |   |
| e.                                                     | I use social media to facilitate interaction with my research partners.                                                            |   |   |   |   |   |
| f.                                                     | I use social media to exchange knowledge more quickly with other researcher.                                                       |   |   |   |   |   |
| g.                                                     | I use social media to share knowledge with other researcher.                                                                       |   |   |   |   |   |
| h.                                                     | I use social media to get feedback about my research from other researchers.                                                       |   |   |   |   |   |
| i.                                                     | I use social media to discuss with other research in conducting literature review.                                                 |   |   |   |   |   |
| j.                                                     | I use social media to discuss my research method with other researchers.                                                           |   |   |   |   |   |
| k.                                                     | I use social media to discuss my research finding with other researchers.                                                          |   |   |   |   |   |
| l.                                                     | I use social media to find collaborators for my research projects.                                                                 |   |   |   |   |   |
| m.                                                     | I use social media to facilitate collaboration with my researcher partner.                                                         |   |   |   |   |   |
| n.                                                     | I use social media to facilitate collaboration with my research respondents to collect the required data.                          |   |   |   |   |   |

**Table 12. Barriers associated with Use of SM for IL by academic researchers**

| <b>11- Why you don't use social media for informal learning?</b>        |                                                                                 | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------|----------|----------|----------|----------|
| a.                                                                      | There is a lack of encouragement from colleagues on the need to use SM for IL.  |          |          |          |          |          |
| b.                                                                      | I don't use SM for IL because most information obtained is a lack of quality.   |          |          |          |          |          |
| c.                                                                      | I don't use SM for IL because it is a threat to my research materials and data. |          |          |          |          |          |
| d.                                                                      | I don't feel any necessity to use SM for IL.                                    |          |          |          |          |          |
| e.                                                                      | I don't have time to use SM for IL.                                             |          |          |          |          |          |
| <b>12- Do you think social media can be used for informal learning?</b> |                                                                                 | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |

Thank you very much for your cooperation and participation.

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