Adoption and implementation of evidence-based library acquisition of electronic resources

A'dillah Mustafa^{1,2} and A. Noorhidawati^{1*}

¹Department of Library and Information Science, Faculty of Computer Science and Information Technology, University of Malaya, MALAYSIA ²Department of Library and Information Science, Faculty of Information Management, Universiti Teknologi MARA, Selangor, MALAYSIA e-mail: adillah973@siswa.um.edu.my; *noorhidawati@um.edu.my (corresponding author)

ABSTRACT

Evidence-based librarianship (EBL) has been in the literature for around 20 years, and has received a mixed level of acceptance and adoption in its implementation. The purpose of this study is to identify the determinants of EBL adoption and implementation in library acquisition decision of electronic resources. The Technology-Organization-Environment (TOE) model, Innovation Diffusion Theory (IDT) theory and EBL model were used to form the research framework in order to investigate the adoption and implementation of evidence-based acquisition (EBA). Questionnaires were used as data collection tool. Data were collected from 250 respondents comprising librarians from academic, public and special libraries. The data were analyzed descriptively using Statistical Product and Service Solutions (SPSS) v24. The assessment of the measurement and structural model was executed using Smart-PLS (SEM) 3.0. The reflective model was found to be valid and reliable with the Cronbach's Alpha above 0.70, CR value and AVE of 0.80-0.90. Fornell-Larcker Criterion and Item Cross-loading recordings revealed that the constructs did not discriminate each other. Path coefficient analysis was performed to test the hypothesis in the identification of significant relationship that resulted in Relative Advantage, Compatibility and Top Management Support as the determinants of EBA of electronic resources Although no significant relationship was found between EBL Adoption and Implementation, an indication of practice was recorded in the level of implementation analysis. Further action and future research for libraries were suggested.

Keywords: Evidence-Based Librarianship; Library acquisition; Evidence-based decision-making; Technology-Organization-Environment (TOE) model; Innovation Diffusion Theory.

INTRODUCTION

Evidence-based library and information practice (EBLIP) or evidence-based librarianship (EBL) was first cited in the literature of librarianship by Kougofinnakis in 1999 (Eldredge 2000). Ever since then, the practice received good acceptance and recognition among librarians worldwide, and has been widely reported in the library and information sciences literature. Various findings have been reported on the adoption level including determinants and barriers in the implementation. Support from management has been found to be the main determinant in the adoption of evidence-based practice among nurses (Brown, Wickline and Ecoff 2009), while librarians' skills and knowledge were reported to be important for adoption of evidence-based information practice (Booth and Eldredge 2010; Cooter and Lewis 2006; Gerrish, Ashworth and Lacey 2007; Mohamad Bahtiar, Abd Manaf and Mohamed Shuhidan 2017).

Library acquisition decision is a crucial process in the overall collection management of all libraries (Hobart 2019; Luo 2018). The librarians' experience in applying EBL was reported by Miller et al. (2017) who developed an experience model to capture the critical variation of librarian's experiences in applying formal research skills and method to assist in decision-making and establish best practice. According to Oakleaf (2010), EBL is about applying related, reliable and valid evidence in supporting library decision-making process. The main concern of EBL in the acquisition decision making is to find tools that support the processes (Woodcock 2014), and the librarian readiness to implement it (Booth 2011; Jantz 2012; Hiller and Self 2004; Muhd 'rabiu 2016; Sackett, Rosenberg and Gray 1996). Acceptance is another concern related to EBL implementation (Aarons, Hurlburt and Horwitz 2011; Koufogiannakis 2015; McBride 2015; Patel 2010; Tabesh 2015).

Among the noticeable efforts in the literature of collection management, Denise Koufogiannakis' (Koufogiannakis 2015) doctoral research is a landmark in establishing evidence-based collection management model in libraries. The model consists of three vital elements in collection development: information needs, information approach and information source. Information needs can be further divided into two streams; core and innovative. The core information needs deal with local information approach required by collection management staff in performing daily tasks, while the innovative needs apply EBLIP approach using research literature and local data.

Generally, studies observing the determinants of adoption apply the Adoption Theory; Innovation Diffusion Theory (IDT) or Diffusion of Innovation (DOI) (Rogers 1995). Literature on both EBL adoption and implementation highlights a wide adoption and a successful implementation of the practice. However, the wide coverage only partially portrays the real library environment in terms of types of library and fields. The findings were mainly reported from academic libraries and healthcare research institutions in the field of Medicine and Health Sciences (Luciano, Aloia and Brett 2019). The recent development of EBL practice unfolds the adoption and implementation that go beyond the norms, as explored by legal (Lerdal 2006; Veldhuis 2018), management (Booth, 2011; Gillson et. al 2019), education (Gambrill 2018; Gillespir 2014) and library science education (Abresch et al. 2017; Luo 2018). Thus, this revealed the needs to study the adoption and implementation in recent library and information science environment. Similarly, as suggested by Wood and Brice (2013), exploring EBL in different library setting includes geographical aspect.

The purpose of this study is to identify the determinants of EBL adoption and implementation in library acquisition decision-making specifically for electronic resources. The Technology-Organization-Environment Model (TOE) (Depietro, Wiarda and Mitchell 1990), IDT Theory (Rogers 1995) and EBL Model (Crumley and Koufogiannakis 2002) were used in this study to form the research framework.

LITERATURE REVIEW

Evidence-based practice including EBL was reported to be a very practical approach for decision-making in various fields. The pioneering practice was Evidence-Based Medicine (EBM) introduced by Guyatt, Cairns and Churchill (1992) followed by Evidence-Based Medicine Clinical Decision Making or Evidence-based Practice (Sackett, Rosenberg and Gray 1996). The practice then spread to librarianship, management, education, law and policy making. The widespread was due to the demand in the profession itself for

transparent decision making (Booth 2003; Koufogiannakis 2013; Koufogiannakis and Crumley 2006; Lerdal 2006) and innovation (Crumley and Koufogiannakis 2002; Kaur and Walia 2016; Koufogiannakis 2007). In librarianship, the EBL presence was reported to be applicable in six library domains such as acquisition, reference/enquiries, cataloging, customer services, user education, information searching and retrieval and marketing/promotion (Crumley and Koufogiannakis 2002). The adoption and implementation as reported by Booth (2011) was "a good reception" as it has been reported in 217 articles from 2001 to 2010. The reports came from various countries including the United States, Canada, United Kingdom, Australia, New Zealand, Iran, Korea and the Caribbean.

The Evidence-Based Collection Management (EBCM) as a wider aspect in the acquisition domain (Edelman 1979) is debated by a few researchers, as to whether decision making process is a science or an art process (Plutchak 2003) considering that it is "more of an art than science" (p.2), while Richards and Eakin (1997) consider it as both art and science grounded by scientific methods. This argument reflects on the definition of EBCM as noted by Richards and Eakin (1997), that a visionary collection management must incorporate both the wide-range of materials and a soundness of connectivity, which requires both arts and sciences in the process. The basic understanding of EBCM explained by Crumley and Koufogiannakis (2002) is the activity of building high-quality library resources (print and electronic) that should be useful, cost-effective and meets users' needs. The decision making process according to Cleyle and McKenna (2007) describes Booth and Brice's (2007) EBL model as the best available evidence in the decision process with six vital steps: (i) Define problem; (ii) Find evidence; (iii) Appraise evidence; (iv) Apply results of appraisal; (v) Evaluate change; and (vi) Redefine problem.

Library acquisition has become a challenging process in the current decade as libraries now shift from traditional to digital platform. A new paradigm has emerged in libraries incorporating conventional and electronic resources described as expanding the traditional view of the traditional collection (Atkinson 2002), and born-digital collection (Gorman 2000). Libraries have spent over billions of dollars investing in electronic resources. Therefore, it is critical to study decision-making process of e-resources acquisition to ensure the right decision is made in developing library collection based on users' demand. A number of approaches and practices are introduced by practitioners and vendors such as a Consortia, Patron-Driven Acquisition (PDA), Demand-Driven Acquisition (DDA), Pay-Per-View (PPV) and also Evidence-Based Collection Management (EBCM).

Innovation decision process as part of IDT (Rogers 1983) indicates that the process of decision making starts with knowledge, persuasion, decision, implementation and finally confirmation. Decision stage is where decision makers engage with innovation, and decide to adopt or to reject innovation. Rogers (1983) outlines four outcomes from this stage: (i) Continued adoption (full adoption due to the goodness perceived of the innovation), (ii) Later Adoption (indention to adopt in near future due to the perceived goodness), (iii) Discontinuance (adopt the innovation but reject it later), and (iv) Continued Rejection (totally reject). In Library and Information Science field, Koufogiannakis (2013) reveals two types of decision making, namely personal decision and collective decision. In the same study, she reported library decision as a collective decision. The next stage is implementation where the innovation is put in practice.

Despite all the promising notions of the practice, Booth (2011) highlights the barriers and facilitators in the overall implementation of EBL across library practice. Diversity in the barriers and determinants were reported (Bexon 2005; Booth and Eldredge 2010; Koufogiannakis and Crumley 2006; Lerdal 2006; Pretty 2007) including organizational support which includes lack of management support (Booth and Eldredge 2010; Cooter and Lewis 2006), lack of incentives from leadership (Dalrymple 2013) and need for skills/training (Booth and Brice 2007; Booth and Eldredge 2010). It can be assumed that both contributing factors and barriers are consistent throughout the research context regardless of the geographical settings. Booth's findings have inspired this study to comprehensively investigate the determinants of EBL adoption and implementation in decision making process, particularly in electronic resource acquisition decision making within the Malaysian setting.

RESEARCH OBJECTIVES AND RESEARCH FRAMEWORK

This study was conducted to address the following research objectives:

(a) To identify the determinants of EBL adoption in the acquisition decision-making of electronic resources;

(b) To investigate the influence of EBL adoption towards EBL implementation in the acquisition decision-making of electronic resources.

To address the two research objectives, a research framework is developed based on the Rogers' (1995) IDT; Depietro, Wiarda and Mitchell's (1990) TOE Model; and Crumley and Koufogiannakis' (2002) EBL Model. The study identifies TOE elements as the determinants in investigating the EBL adoption as literature from various fields have quantified their relationship. However, there is no investigation between the TOE elements and implementation since adoption and implementation are correlated as two main constructs in the same theory of IDT. Figure 1 illustrates the research framework.



Figure 1: Research Framework of Adoption and Implementation of EBL in the Acquisition Decision-making of Electronic Resources

The research framework is developed to investigate the relationship between the independent variables and dependent variables. Seven (7) hypotheses were established to explore the relationship between relative advantage, compatibility, complexity, organizational readiness, top management support and training and development and adoption; and between adoption and implementation. The literature justifying the relationship between the variables are referred to in Table 1.

| Variables | Hypothesis | References |
|--|--|--|
| Relative Advantage → Adoption | H1: There is a statistically significant positive relationship between Relative Advantage and EBL Adoption in the acquisition decision-making of electronic resources. | Alshamaila, Papagiannidis and Li (2013); Dahnil, Marzuki and Langgat (2014); Gangwar, Date and Ramaswamy (2015); Hoti (2015); Zolkepli and Kamarulzaman (2015) |
| Compatibility → Adoption | H2: There is a statistically significant positive relationship between Compatibility and EBL Adoption in the acquisition decision-making of electronic resources. | AlBar and Hoque (2017); Alshamaila, Papagiannidis and Li (2013); Doom, Milis, and Poelmans (2010); MacGregor and Kartiwi (2010); Ramzan and Singh (2010); Walker, Saffu and Mazurek 2016 |
| Complexity → Adoption | H3: There is a statistically significant positive relationship between Complexity and EBL Adoption in the acquisition decision-making of electronic resources. | AlBar and Hoque (2017); MacGregor and Kartiwi (2010); Ramzan and Singh (2010); Sanni, Ngah and Karim (2013) |
| Organizational Readiness → Adoption | H4: There is a statistically significant relationship between Organizational Readiness and EBL Adoption in the acquisition decision- making of electronic resources. | Al-Bakri and Katsioloudes (2015); Chan and Auster (2003); Ramzan and Singh (2010); Walker, Saffu and Mazurek (2016) |
| Top Management Support → Adoption | H5: There is a statistically significant positive relationship between Top Management Support and EBL Adoption in the acquisition decision- making of electronic resources. | AlBar and Hoque (2017); Chan and Auster (2003); Chao and Chandra (2012); Finlay and Finlay (1996); Haug Graungaard and Stentoft (2011); MacGregor and Kartiwi (2010) |
| Training and Education → Adoption | H6: There is a statistically significant positive relationship between Training and Education and EBL Adoption in the acquisition decision- making of electronic resources. | Chao and Chandra (2012); Gangwar et al. (2015) |
| Adoption → Implementation | H7: There is a statistically significant positive relationship between Adoption and EBL Implementation in the acquisition decision- making of electronic resources. | Awa, Ukoha and Emecheta (2016); Blackburn (2011); Chung, Choi and Du (2017); Lietzau (2009) |

Table 1: Conceptualization of Relationship among Variables

This study focuses on the identification of the determinants in EBL practice adoption and implementation. In investigating the adoption, previous studies suggested TOE (Depietro, Wiarda and Mitchell 1990) and IDT (Rogers 1995) as a good predictive model for adoption in technology innovation (Gangwar, Date and Ramaswamy 2015; Taylor and Todd 1995; Wu 2011). TOE was found be more relevant for this study due to the presence of organizational variables, which were absent in the original IDT model. The innovation decision of the IDT was highlighted as a respectable adoption decision in library innovation studies (Blackburn 2011; Oguz 2016) and further upheld by Dooley (1999) and Stuart (2000) as a widely used theoretical framework in technology and other disciplines. Generally, Mustafa, Harun and Endin (2014) reported that technological aspects play

important roles in the acceptance of library innovation. The individual variables are explained in Table 2.

| Variables | Definition | References |
|--------------------------|--|--|
| Relative advantage | Relative advantage refers to the degree to which the practice is considered as being better than the present practice. | Gangwar, Date and Ramaswamy (2015) |
| Compatibility | Compatibility refers to the norms and value of the innovation in the social system. | Alshamaila, Papagiannidis and Lie (2013) |
| Complexity | Complexity is associated with the easiness of using or unalike outcomes on the significant and affect | Kai-ming and Enderwick (2000) |
| Organizational readiness | Organizational readiness is described as the awareness, resources, commitment and governance of an organization in adopting an innovation. | Al-Bakri and Katsioloudes (2015) |
| Top Management Support | Top management support is defined as the involvement and initiatives from the top management towards an innovation adoption. | Gangwar, Date and Ramaswamy (2015) |
| Training and Education | Training and education is described as elements to reduce anxiety towards an innovation | Gangwar, Date and Ramaswamy (2015) |
| Adoption | Adoption is used to identify the adoption decision measures by four levels of adoption (continue adoption, later adoption, discontinuance and continue rejection) | Rogers (1995) |
| Implementation | Implementation is described as an innovation is applied in daily use or the innovation is put on practice. | Rogers (1995) |

Table 2: Definition of Variables

METHOD

This study applied quantitative research method by means of a survey questionnaire as data collection instrument. The survey instrument was developed based on earlier described theory and models - IDT (Rogers 1995), TOE (Depietro, Wiarda and Mitchell 1990) and ECL (Crumley and Koufogiannakis 2002). The survey questionnaire was validated and tested for reliability using expert and statistical procedures. The final questionnaire consisted of 46 questions and 8 questions on demographic profile (Appendix). A mixed scale of 7-point Likert scale and non-balanced scale on the implementation variable was used. Study population consisted of librarians from public, academic, and special/research libraries. The sample size was determined using Krejcie and Morgan's (1970) sampling table. A total of 278 sample size was determined out of 1040 population size. A random sampling technique using proportionate sampling was used to determine the proportion of respondents according to the library types. The survey questionnaire including a consent letter with stamped, self-addressed envelope was self-administered using post mails. A reminder was sent to respondents after a week since the surveys were mailed out, and another reminder was sent again two weeks later when no responses were received. A total of 250 responses were gathered to sum up of 89.9 percent response rate. Data were analyzed using SPSS v24 for descriptive analysis and SmartPLS (SEM) 3.0 for path correlation analysis.

Demographic Profile

Table 3 shows demographic profile of the respondents. The data indicated two third of the respondents are female. Most of the respondents (47%) are in their early career in

librarianship as demonstrated of having 1 to 10 years in service. Fifty percent of the respondents hold a Bachelors' Degree.

| | Frequency | Percent |
|----------------------------|-----------|---------|
| Gender | | |
| Male | 83 | 33.3 |
| Female | 167 | 66.8 |
| Number of Years in | Service | |
| 1 to 10 years | 118 | 47.2 |
| 11-20 years | 102 | 40.8 |
| 21-30 years | 19 | 7.6 |
| 31-40 years | 3 | 1.2 |
| 41-50 years | 1 | 0.4 |
| Missing | 7 | 2.8 |
| Academic Qualifi | cation | |
| PhD | 2 | 0.8 |
| Master's degree | 107 | 42.8 |
| Bachelor's degree | 127 | 50.8 |
| Diploma | 9 | 3.6 |
| Professional Certification | 5 | 2.0 |
| Job Responsib | lity | |
| Chief Librarian | 8 | 3.2 |
| Deputy Chief Librarian | 12 | 4.8 |
| Head of Department | 34 | 13.6 |
| Head of Unit | 53 | 21.2 |
| Acquisition Librarian | 24 | 9.6 |
| Circulation Librarian | 14 | 5.6 |
| Reference Librarian | 27 | 10.8 |
| Liaison Librarian | 19 | 7.6 |
| Cataloger | 29 | 11.6 |
| Others | 30 | 12.0 |
| Types of Libra | iry | |
| Public Library | 50 | 20.0 |
| Academic Library | 173 | 69.2 |
| Special Library | 27 | 10.8 |
| Library Size | · | |
| Less than 10 staff | 46 | 18.4 |
| 10 to 49 staff | 47 | 18.8 |
| 50-100 staff | 24 | 9.6 |
| More than 100 staff | 133 | 53.2 |
| Source of Fund | ling | |
| Federal Government | 152 | 60.8 |
| State Government | 34 | 13.6 |
| Local Authority | 6 | 2.4 |
| Parent Organization | 48 | 19.2 |
| Foundation | 8 | 3.2 |
| Others | 2 | 8 |

Table 3: Analysis of Respondents' Demographic (n=250)

FINDINGS

Analysis of Variables

The variable descriptive analyses were reported as the mean value of individual variables. Table 4 shows the mean value for the variables.

| Variables | Mean | SD |
|--------------------------|------|-------|
| Relative Advantage | 5.61 | .896 |
| Compatibility | 5.25 | .906 |
| Complexity | 5.02 | .921 |
| Organizational Readiness | 4.48 | 1.494 |
| Top Management Support | 4.77 | 1.142 |
| Training and Education | 4.39 | 1.411 |
| Adoption | 5.03 | 1.487 |
| Research Evidence | 4.83 | 1.374 |
| Local Evidence | 5.28 | 1.245 |
| Professional Knowledge | 5.23 | 1.391 |

Table 4: Descriptive Analysis of Variables

Descriptive Analysis of EBL Implementation

This analysis identified the level of implementation of the EBL practice among librarians. EBL implementation consists of research evidence, local evidence and professional knowledge. The level of implementation was measured by an unbalanced scale. The scale was categorized into three levels of implementation: not implemented (not implemented or plan to implement), undecided (undecided) and implemented (partially implemented, implemented, close to full implemented and fully implemented). The analysis revealed that 87.94 percent (3734) of the respondents reported implemented, 6.64 percent (282) indicated undecided and 5.42 percent (234) indicated not implemented. Table 5 tabulates the level of EBL implementation.

Table 5: Level of EBL Implementation

| | Research | Local | Professional | |
|---------------------------|---------------|---------------|---------------|----------------|
| Level of | Evidence | Evidence | Knowledge | Total |
| Implementation | (6 questions) | (5 questions) | (6 questions) | (17 questions) |
| | Frequency (%) | Frequency (%) | Frequency (%) | Frequency (%) |
| Not Implemented | 80 (5.33) | 38 (3.04) | 42 (2.80) | 160 (3.67) |
| Plan to Implemented | 24 (1.60) | 21 (1.68) | 29 (1.93) | 74 (1.75) |
| Undecided | 101(6.73) | 85 (6.80) | 96 (6.40) | 282 (6.64) |
| Partially Implemented | 249 (16.60) | 146 (11.68) | 153 (10.20) | 548 (12.9) |
| Implemented | 536 (35.74) | 439 (35.12) | 559 (37.27) | 1534 (36.1) |
| Close to Full Implemented | 411 (27.4) | 371(29.68) | 473 (31.53) | 1255 (29.6) |
| Fully Implemented | 99 (6.6) | 150 (12) | 148 (9.87) | 397 (9.34) |
| Total | 1500 (100%) | 1250 (100%) | 1500 (100%) | 4250 (100%) |

Note: The frequency count includes 17 questions in the implementation section for every 250 respondents that sum up to a total of 4250 responses.

Model Assessment and Path Coefficient Analysis

Measurement model (outer model) was conducted to evaluate the validity and reliability of the proposed model and path coefficient analysis of the structural model. The measurement model assessment of this study followed the Reflective Measurement Model which included internal consistency, convergent validity and discriminant validity. The measurement model assessment of internal consistency refers to the Cronbach's Alpha and Composite Reliability (CR) value. Table 6 describes the internal consistency of the constructs.

| Construct | Cronbach's Alpha | rho_A | CR | AVE |
|--------------------------|------------------|-------|-------|-------|
| Relative Advantage | 0.955 | 0.959 | 0.962 | 0.762 |
| Compatibility | 0.954 | 0.954 | 0.970 | 0.916 |
| Complexity | 0.718 | 0.719 | 0.887 | 0.780 |
| Organizational Readiness | 0.749 | 0.749 | 0.888 | 0.799 |
| Top Management Support | 0.928 | 0.938 | 0.949 | 0.824 |
| Training and Education | 0.933 | 0.939 | 0.957 | 0.882 |
| Adoption | 0.865 | 0.869 | 0.918 | 0.788 |
| Implementation | 0.955 | 0.960 | 0.959 | 0.535 |

Table 6: Internal Consistency of the Constructs

The second assessment was convergent validity. Convergent validity refers to the indicator reliability (Item loadings) and Average Variance Extracted (AVE) value. Table 4 indicates the item loadings and AVE value for the constructs. Items with low loading below 0.6 were discarded from the analysis. The final assessment was the discriminant validity. Discriminant validity was determined by the Fornell-Larcker Criterion Analysis and Item Cross-loadings. Table 7 shows the convergent validity, while Table 8 and Table 9 indicate the discriminant validity of the constructs.

Overall, the measurement model assessment was found to be acceptable and satisfactory. The internal consistency of Cronbach's Alpha was above the cut-off points of 0.70, and the CR was above 0.7 which can be considered to have a good internal consistency. The convergent validity with the AVE value recorded at 0.7 and above indicates an acceptable value (Hair, Hult and Ringle 2014). The discriminant validity also indicates that the construct is unique as they differ from another. The Fornell-Larcker Criterion Analysis indicates that when the value of the construct is higher than other construct in its own row, the same indication is also displayed in the item cross-loading value in Table 9.

The Structural Model assessment was the second part of the assessment in SmartPLS (SEM). The structural or inter-model assessment includes the path coefficients analysis, coefficient of determination and effect size. Path coefficients analysis is concerned on the coefficient's size and significance. The following section explains the path coefficient described in the hypothesis testing.

Table 7: Convergent Validity

| Construct | Item | Loading | AVE |
|-----------|--|---------|-------|
| | Relative Advantage | | 0.762 |
| RELADV1 | Using EBL enables me to accomplish tasks more quickly | 0.862 | |
| RELADV2 | Using EBL improves my quality of work | 0.940 | |
| RELADV3 | Using EBL makes my job easier | 0.899 | |
| RELADV4 | Using EBL improves my job performance | 0.930 | |
| RELADV5 | Overall 1 find using FBI to be advantageous in my job | 0 771 | |
| RELADV6 | Using FBL enhances effectiveness on my job | 0.905 | |
| RELADV7 | Using EBL, gives me greater control over my work | 0.881 | |
| RELADV8 | Using EBL increases my work productivity | 0.777 | |
| | Compatibility | | 0.916 |
| COMPAT1 | EBL fit well with the way I work | 0.963 | |
| COMPAT2 | EBL fit well into my working style | 0.973 | |
| COMPAT3 | The implementation of EBL is compatible with my work way | 0.935 | |
| | Complexity | | 0.780 |
| COMPLEX1 | EBL is flexible to use | 0.837 | |
| COMPLEX2 | Using EBL exposes me to the sensitivity of information as evidence | 0.853 | |
| COMPLEX3 | Using EBL, I find it is difficult to integrate my currency work with the evidences* | 0.145 | |
| COMPLEX4 | Gathering evidence takes up too much of my time | 0.603 | |
| | Organizational Readiness | | 0.799 |
| ORGRED1 | My organization hires highly specialized personnel for EBL | 0.864 | |
| ORGRED2 | We have sufficient resources to implement EBL | 0.824 | |
| ORGRED3 | We allocate some amount of budget to implement EBL | 0.837 | |
| | Top Management Support | | 0.824 |
| TMS1 | My top management exhibits a culture of innovativeness | 0.831 | |
| TMS2 | My top management provides strong leadership & engagement in implementation of EBL | 0.938 | |
| TMS3 | My top management is likely to consider the adoption of EBL as strategically important | 0.941 | |
| TMS4 | My top management is willingly to take risks involved in the adoption of EBL | 0.918 | |
| | Training and Education | | 0.882 |
| TAE1 | My organization provides me complete training in practicing EBL | 0.917 | |
| TAE2 | My level of understanding has substantially improved after going through the training | 0.964 | |
| | program on EBL | 0.000 | |
| TAE3 | The training gave me confidence in implementing EBL | 0.936 | 0.700 |
| 40001 | Adoption | 0.050 | 0.788 |
| | Adopting EBL is advantageous | 0.850 | |
| | Considering adopting EBL in field future | 0.918 | |
| | Adopting EBL is beneficial, but i ani sun researching on it | 0.8/7 | |
| ADOF4 | | 0.243 | 0 535 |
| RESEV/1 | I refer to a research report in acquisition decision | 0.874 | 0.555 |
| RESEV1 | I refer to supplier statistical report in acquisition decision | 0.874 | |
| RESEV2 | I refer to supplier statistical report in acquisition decision | 0.880 | |
| RESEV4 | I refer to reviews in the acquisition decision | 0.884 | |
| RESEV5 | I refer to systematic reviews in acquisition decision | 0.928 | |
| RESEV6 | I refer to Bibliometric report in acquisition decision | 0.875 | |
| LOCAL1 | I refer to internal standard (Standard Operating Procedure) in acquisition decision | 0.826 | |
| LOCAL2 | I refer to best practice in acquisition decision | 0.876 | |
| LOCAL3 | I refer to unpublished survey report in acquisition decision* | 0.355 | |
| LOCAL4 | I refer to in-house usage statistics in acquisition decision. | 0.894 | |
| LOCAL5 | I refer to collection analysis report in acquisition decision. | 0.926 | |
| PROK1 | I refer to professional standard in acquisition decision. | 0.800 | |
| PROK2 | I refer to professional guidelines in acquisition decision. | 0.783 | |
| PROK3 | I consider professional tacit knowledge in acquisition decision | 0.856 | |
| PROK4 | I consider my own experience in acquisition decision | 0.805 | |
| PROK5 | I consider other librarians experience in acquisition decision | 0.856 | |
| PROK6 | I consider the expert opinion in acquisition decision | 0.853 | |

Low loading items*

| | А | Со | С | LE | OR | РК | RA | RE | TMS | TE |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | | | | | | | | |
| Adoption | 0.888 | | | | | | | | | |
| Compatibility | 0.457 | 0.957 | | | | | | | | |
| Complexity | 0.414 | 0.829 | 0.883 | | | | | | | |
| Local Evidence | 0.453 | 0.360 | 0.338 | 0.887 | | | | | | |
| Organizational | 0.324 | 0.429 | 0.443 | 0.267 | 0.894 | | | | | |
| Readiness | | | | | | | | | | |
| Professional | 0.441 | 0.370 | .382 | 0.823 | 0.343 | 0.826 | | | | |
| Knowledge | | | | | | | | | | |
| Relative Advantage | 0.438 | 0.781 | 0.767 | 0.354 | 0.353 | 0.344 | 0.873 | | | |
| Research Evidence | 0.411 | 0.385 | 0.388 | 0.705 | 0.374 | 0.759 | 0.362 | 0.885 | | |
| Top Management | 0.457 | 0.489 | 0.512 | 0.408 | 0.506 | 0.453 | 0.404 | 0.475 | 0.908 | |
| Support | | | | | | | | | | |
| Training and Education | 0.347 | 0.327 | 0.305 | 0.369 | 0.591 | 0.434 | 0.196 | 0.489 | 0.708 | 0.939 |

Table 8: Fornell-Larcker Criterion Analysis

* A-Adoption; Co-Compatibility; C-Complexity; LE-Local Evidence; OR-Organizational Readiness; PK-Professional Knowledge; RA-Relative Advantage; RE-Research Evidence; TMS-Top Management Support; TE-Training & Education

**Note: Square root of the AVE on the diagonal

Table 9: Item Cross-loadings

| | Α | Со | с | LE | OR | РК | RA | RE | тмѕ | TE |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| ADOP1 | 0.862 | 0.429 | 0.402 | 0.417 | 0.308 | 0.390 | 0.397 | 0.324 | 0.384 | 0.273 |
| ADOP2 | 0.923 | 0.398 | 0.357 | 0.432 | 0.311 | 0.399 | 0.401 | 0.425 | 0.471 | 0.375 |
| ADOP3 | 0.878 | 0.391 | 0.341 | 0.353 | 0.239 | 0.384 | 0.367 | 0.342 | 0.355 | 0.271 |
| COMPAT1 | 0.445 | 0.962 | 0.780 | 0.356 | 0.408 | 0.373 | 0.739 | 0.382 | 0.471 | 0.324 |
| COMPAT2 | 0.437 | 0.973 | 0.795 | 0.331 | 0.405 | 0.354 | 0.760 | 0.355 | 0.475 | 0.324 |
| COMPAT3 | 0.430 | 0.935 | 0.805 | 0.346 | 0.419 | 0.335 | 0.744 | 0.367 | 0.459 | 0.291 |
| COMPLEX1 | 0.370 | 0.764 | 0.886 | 0.273 | 0.507 | 0.356 | 0.676 | 0.366 | 0.526 | 0.379 |
| COMPLEX2 | 0.361 | 0.699 | 0.880 | 0.325 | 0.272 | 0.319 | 0.679 | 0.318 | 0.377 | 0.157 |
| COMPLEX3 | 0.203 | 0.234 | 0.580 | 0.208 | 0.296 | 0.158 | 0.259 | 0.235 | 0.180 | 0.113 |
| LOCAL1 | 0.417 | 0.286 | 0.303 | 0.833 | 0.272 | 0.702 | 0.261 | 0.631 | 0.362 | 0.327 |
| LOCAL2 | 0.419 | 0.309 | 0.261 | 0.881 | 0.218 | 0.684 | 0.298 | 0.612 | 0.312 | 0.334 |
| LOCAL4 | 0.363 | 0.331 | 0.309 | 0.899 | 0.245 | 0.753 | 0.346 | 0.610 | 0.395 | 0.319 |
| LOCAL5 | 0.409 | 0.346 | 0.325 | 0.930 | 0.215 | 0.777 | 0.347 | 0.647 | 0.378 | 0.330 |
| ORGRED1 | 0.291 | 0.341 | 0.357 | 0.256 | 0.895 | 0.304 | 0.277 | 0.374 | 0.464 | 0.583 |
| ORGRED2 | 0.289 | 0.426 | 0.435 | 0.222 | 0.893 | 0.309 | 0.354 | 0.295 | 0.440 | 0.473 |
| ORGRED3 | 0.316 | 0.343 | 0.357 | 0.341 | 0.836 | 0.408 | 0.292 | 0.431 | 0.668 | 0.652 |
| PROK1 | 0.350 | 0.293 | 0.314 | 0.793 | 0.319 | 0.800 | 0.337 | 0.757 | 0.381 | 0.376 |
| PROK2 | 0.355 | 0.270 | 0.306 | 0.770 | 0.350 | 0.784 | 0.315 | 0.790 | 0.402 | 0.438 |
| PROK3 | 0.318 | 0.335 | 0.348 | 0.580 | 0.307 | 0.856 | 0.262 | 0.579 | 0.423 | 0.395 |
| PROK4 | 0.346 | 0.296 | 0.323 | 0.570 | 0.235 | 0.805 | 0.269 | 0.479 | 0.335 | 0.283 |
| PROK5 | 0.402 | 0.303 | 0.269 | 0.676 | 0.227 | 0.855 | 0.229 | 0.522 | 0.315 | 0.310 |
| PROK6 | 0.408 | 0.340 | 0.332 | 0.644 | 0.244 | 0.852 | 0.278 | 0.576 | 0.379 | 0.328 |
| RELADV1 | 0.407 | 0.660 | 0.613 | 0.258 | 0.362 | 0.304 | 0.861 | 0.306 | 0.354 | 0.203 |
| RELADV2 | 0.426 | 0.686 | 0.679 | 0.341 | 0.321 | 0.332 | 0.940 | 0.358 | 0.398 | 0.156 |
| RELADV3 | 0.413 | 0.679 | 0.638 | 0.293 | 0.321 | 0.310 | 0.898 | 0.350 | 0.352 | 0.185 |
| RELADV4 | 0.383 | 0.699 | 0.715 | 0.338 | 0.282 | 0.303 | 0.931 | 0.340 | 0.350 | 0.140 |
| RELADV5 | 0.399 | 0.769 | 0.778 | 0.309 | 0.370 | 0.320 | 0.772 | 0.332 | 0.447 | 0.241 |
| RELADV6 | 0.374 | 0.677 | 0.672 | 0.322 | 0.229 | 0.263 | 0.906 | 0.288 | 0.301 | 0.115 |
| RELADV7 | 0.319 | 0.678 | 0.667 | 0.355 | 0.282 | 0.309 | 0.882 | 0.320 | 0.305 | 0.186 |
| RELADV8 | 0.301 | 0.587 | 0.579 | 0.254 | 0.276 | 0.246 | 0.775 | 0.202 | 0.281 | 0.134 |
| RESEV1 | 0.348 | 0.372 | 0.363 | 0.554 | 0.315 | 0.640 | 0.363 | 0.874 | 0.422 | 0.390 |
| RESEV2 | 0.393 | 0.340 | 0.346 | 0.665 | 0.264 | 0.671 | 0.308 | 0.867 | 0.439 | 0.427 |

| RESEV3 | 0.329 | 0.371 | 0.361 | 0.534 | 0.387 | 0.626 | 0.363 | 0.880 | 0.441 | 0.446 |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| RESEV4 | 0.373 | 0.305 | 0.311 | 0.625 | 0.277 | 0.658 | 0.292 | 0.884 | 0.398 | 0.424 |
| RESEV5 | 0.366 | 0.365 | 0.353 | 0.696 | 0.348 | 0.723 | 0.333 | 0.928 | 0.438 | 0.458 |
| RESEV6 | 0.371 | 0.292 | 0.328 | 0.655 | 0.398 | 0.701 | 0.268 | 0.875 | 0.387 | 0.450 |
| TAE1 | 0.319 | 0.282 | 0.268 | 0.336 | 0.620 | 0.411 | 0.168 | 0.446 | 0.677 | 0.915 |
| TAE2 | 0.352 | 0.337 | 0.305 | 0.367 | 0.565 | 0.423 | 0.211 | 0.483 | 0.661 | 0.964 |
| TAE3 | 0.305 | 0.300 | 0.285 | 0.336 | 0.477 | 0.387 | 0.171 | 0.447 | 0.658 | 0.938 |
| TMS1 | 0.345 | 0.406 | 0.441 | 0.376 | 0.266 | 0.370 | 0.389 | 0.376 | 0.832 | 0.494 |
| TMS2 | 0.420 | 0.441 | 0.462 | 0.352 | 0.509 | 0.404 | 0.353 | 0.426 | 0.938 | 0.637 |
| TMS3 | 0.445 | 0.501 | 0.504 | 0.397 | 0.508 | 0.436 | 0.396 | 0.442 | 0.941 | 0.676 |
| TMS4 | 0.438 | 0.424 | 0.453 | 0.363 | 0.520 | 0.430 | 0.337 | 0.475 | 0.916 | 0.740 |

 * A-Adoption; Co-Compatibility; C-Complexity; LE-Local Evidence; OR-Organizational Readiness; PK-Professional Knowledge;
RA-Relative Advantage; RE-Research Evidence; TMS-Top Management Support; TE-Training & Education

Path Coefficient Analysis of the Research Hypothesis

H1: There is a statistically significant positive relationship between Relative Advantage and EBL Adoption in the acquisition decision-making of electronic resources.

Hypothesis 1 predicts that there is a significant positive relationship between Relative Advantage and EBL Adoption. The result reveals there is a weak positive relationship, but an indication of a significant value exists (β =0.001, t=1.804, p<0.05). Thus, this hypothesis is supported.

H2: There is a statistically significant positive relationship between Compatibility and EBL Adoption in the acquisition decision-making of electronic resources.

Hypothesis 2 predicts that there is a significant positive relationship between Compatibility and EBL Adoption. The result reveals there is a weak positive relationship, t (β =0.147, t= 1.241, p>0.1), but a signification of a non-significant value exists. Thus, this hypothesis is supported.

H3: There is a statistically significant positive relationship between Complexity and EBL Adoption in the acquisition decision-making of electronic resources.

Hypothesis 3 predicts that there is a significant positive relationship between Complexity and EBL Adoption. The result reveals there is a positive relationship, and a non-significant value exists, t (β =-0.003, t= 02.028, p>0.05). Thus, this hypothesis is not supported.

H4: There is a statistically significant relationship between Organizational Readiness and EBL Adoption in the acquisition decision-making of electronic resources.

Hypothesis 4 predicts that there is a significant positive relationship between Organizational Readiness and EBL Adoption. The result reveals there is a weak positive relationship, t (β = 0.008, t= 0.87, p>0.05) but a non-signification value exists. Thus, this hypothesis is not supported.

H5: There is a statistically significant positive relationship between Top Management Support and EBL Adoption in the acquisition decision-making of electronic resources.

Hypothesis 5 predicts that there is a significant relationship between Top Management Support and EBL Adoption. The result reveals there is a weak positive relationship, t (β =0.234, t= 2.683, p<0.05) but a moderate signification value exists. Thus, this hypothesis is supported.

H6: There is a statistically significant positive relationship between Training and Education and EBL Adoption in the acquisition decision-making of electronic resources.

Hypothesis 6 predicts that there is a significant relationship between Training and Education and EBL Adoption. The result reveals there is a positive relationship, and a non-significant value exists, t (β =-0.087, t= 0.613, p>0.05). Thus, this hypothesis is not supported.

H7: There is a statistically significant positive relationship between Adoption and EBL Implementation in the acquisition decision-making of electronic resources.

Hypothesis 7 predicts that there is a significant positive relationship between Adoption and EBL Implementation. The result reveals there is no relationship, and a non-significant value exists, t (β =0.001, t= 0.003, p>0.05). Thus, this hypothesis is not supported.

Coefficient Determination (R²)

The coefficient determination or model's predictive accuracy analysis is determined by the R^2 value. The R^2 value of the dependent variables in this study, Adoption, is recorded at 0.299 and Implementation (0.999), thus, this model accuracy predictive is considered substantial (Hair, Hult and Ringle 2014).

Effect Size (f^2)

Effect size is calculated based on the Cohen f^2 value. The results indicate the effect size of the variables, complexity (0.001), compatibility (0.009), organizational readiness (0.000) and relative advantage (0.022), top management support (0.031) and training and education (0.004). It can be concluded that all the variables have a small effect towards adoption, while local evidence (26.95), professional knowledge (41.19) and research evidence (86.97) have a large effect towards implementation.

DISCUSSION

This section provides discussion in addressing the research objectives. The first objective is to identify the determinants of the EBL adoption in the acquisition decision-making of electronic resources. To ascertain the relationship between the construct, a structural equation model (SEM) using Smart-PLS was employed. The structural path coefficient analysis between Relative Advantage, Complexity, Compatibility, Organizational Readiness, Top Management Support, Training and Education and Adoption was analyzed. The path coefficient that tested the hypothesis revealed that there were three determinants in the EBL adoption in library acquisition decision-making which are; (i) Relative advantage, (ii) Compatibility and (iii) Top Management Support.

Relative Advantage

From the results, it is revealed that librarians agreed that EBL practice provides a considerable degree of betterment compared to their current practice in acquisition decision-making. It is the usual practice for librarians to focus on quality, productivity, efficiency and effectiveness in the daily task assignments. This finding is supported in most studies where using the relative advantage as a sub-construct under the construct of technology is found to be a good prediction (Gangwar, Date and Ramaswamy 2015; Tenopir and King 2002), and also the construct of determinant (Moore and Benbasat 1991) and technology and innovation adoption (Taylor and Todd 1995). The results are also found to be similar for innovation and practice in library and information technology firm (Gangwar, Date and Ramaswamy 2015). This could be due to the similarity of staff acknowledging the foreseen benefits and advantages innovation and practice brings to

their tasks. Therefore, it is crucial for libraries to study the advantages of any new practice or innovation prior to any implementation.

Compatibility

The findings of this study reveal that librarians found EBL practice as having a percentage of similarity with the current practice. An innovation must be compatible with the norms and value of the social systems in order to be adopted. The findings are supported in other ICT innovation adoption studies (Gangwar, Date and Ramaswamy 2015; Holak and Lehmann 1990). It can be concluded that EBL is found to be compatible with the librarians' norms and value in the way of compatibility with working preferences and working style. It also fits with the librarians' social systems. In the same tone, Lee (2004) emphasizes on adopted innovation as providing more operational value to the organization.

Top Management Support

Top management support is also considered important for librarians in determining the adoption of the EBL practice. The findings of this study reveal that librarians feel it is important to gain the top management support in adopting the EBL practice. In this way, a culture of innovativeness, and a strong leadership and strategic decision making in EBL practice is provided in an implementation stage in an organization. Other studies have reported similar results in relation to top management support in librarianship in various disciplines; in industrial management (Dubey, Gunasekaran and Helo 2017), human resource development (Lee, Park and Baker 2018), information communication and technology (Gangwar, Date and Ramaswamy 2015), library science (Moran and Morner 2017), and knowledge management (Nazim and Mukherjee 2011; Ogendi 2017). The findings in this study suggest that top management support is a key factor in determining the adoption of a technology or innovation in libraries which is also endorsed by Dubey, Gunasekaran and Helo (2017) and Loke (2001), who reported that top management belief and participation is the key success factor in a project implementation and employee outcomes. Nazim and Mukherjee (2011) also support the fact that failure of knowledge management implementation is due to lack of top management support.

A non-significant relationship was found on Complexity, Organizational Readiness, and Training and Education.

Complexity

Basahuwa (2017) emphasizes on the innovation needs for new skill set to work with. Thus, these findings suggest that even though the librarians feel EBP practice is easy, issues pertaining to policy, procedure and interface must be made simple and easy for fast adoption. Librarians view EBL in this study as something that commands with their current practice which does not associate with any complication in the adoption. Thus, relating issues on librarian knowledge and skills that ease the understanding and use of the EBL are embedded during the previous practice in e-resource acquisition. This is due to the suggestion from previous studies that less complex innovation will easily lead to adoption. Thus, it reveals that the intricacy of EBL does not influence the librarian's adoption decision. Similar findings were reported (Abdekhoda et al. 2016; Gholami, Abdekhoda and Gavganiet 2018; Ho and Wu 2011; Lin and Chen 2012), indicating an insignificant relationship or effect on technology and management innovation adoption due to basic underlying knowledge and skills, and simplicity in process and procedures. These studies perceive that the innovation being studied is not complex.

Organizational Readiness

The study indicates that organizational enthusiasm in providing such efforts has no effect on the librarian's adoption. Similar finding on technology-based innovation was reported by AlBar and Hoque (2019). However, contrary results were reported by Alshamaila, Papagiannidis and Li (2013), Gangwar et al. (2015) and Gholami, Abdekhoda and Gavganiet (2018), indicating the importance of organizational competency in influencing the adoption of an innovation. Even though organization readiness is seen as an important determinant in other fields, in library science research, the organizational culture and micro-managing Koufogiannakis (2015) are sensitive issues for librarians. In almost all academic libraries, decision making is a top-down approach controlled by the top management. Thus, providing a signal of mandatory in the adoption and related issue pertaining to the innovation is considered a secondary issue. In this situation, librarians consider the secondary issues are well-managed by the library management since it is an instruction and decision from the top management. In the organizational characteristics' point of view, library is unique in the decision-making process in which most decisions are group decisions and not individual decision (Koufogiannakis 2015) since a network collaboration is applied in the decision (Lembinen 2018).

Training and Education

Training and education are also reported as to not have an effect on librarians' EBL adoption. The finding suggests that the adoption level is not affected by the level of familiarity and confidence the librarians gain from the training and education session provided. It is also believed that the training and education efforts provide only minimal or no effect at all to the adoption. This might be due to experiences gained from the previous innovation or EBL which possesses a level of similarity with the previous practice. Studies indicate that similarities on both EBP and EBL practices are reported in the framework (Gillespie 2014; Koufogiannakis 2015), definition (Miller et al. 2017; Koufogiannakis 2013), practice model (Miller et al. 2017 ; Gillespie et al. 2017), and evidence (Koufogiannakis 2015 ; Miller et al. 2017). In reality, EBL practice works side-by-side with librarians' practice such as in information searching and evaluation, and also information literacy (Barbour and Young 1986; Brice and Hill 2004; King 1987; Klein, Ross, Adams and Gilbert 1994). But, EBL requires advanced skills on the critical appraisal of the evidence (Buccheri and Sharifi 2017; Burls 2016; Dale, Hallas and Spratling 2019; Swanberg et al. 2016). Critical appraisal is a systematic process to identify the strengths and weaknesses of a research article in order to assess the usefulness and validity of research findings (Buccheri and Sharifi 2017; Burls 2016). This study finding is abnormal compared to other innovation adoption studies. Lin (2014) indicates the risk of insufficient training towards the innovation adoption, and Whitney, Keselman and Humphreys (2017) point out the decreasing expertise.

The second research objective is to investigate the influence of EBL adoption towards EBL implementation in the acquisition of electronic resource decision making. To establish the relationship between adoption and EBL implementation, a path coefficient analysis is performed, and shows that a non-significant relationship is obtained. The results indicate that EBL implementation is not influenced by the adoption of the practice. Adoption decision in this context can be separated into three stages of decisions: adoption (a full use of an innovation); rejection (where librarians do not adopt the innovation) which includes active rejection (where librarians think about adopting the EBL practice, but later reject it); and passive rejection (where librarians do not think about adopting the EBL practice). Implementation in this study context refers to the EBL practice which consists of research evidence, local evidence, and professional knowledge. The findings reveal that librarians have rejected the EBL practice and implementation as also reported in other studies from

various disciplines. In the discipline of medicine and healthcare profession (Eccles, Grimshaw and Walker 2005; Grimshaw, Eccles and Walker 2002), there is a low-level implementation (Warren, McLaughlin and Bardsley 2016) and late adopters (Rabina and Walczyk 2007). The adoption period plays an important role in influencing the implementation especially involving the changes, adjustment, and realignment of behavior and working setting (Grimshaw and Eccles 2004; Sales, Smith and Curran 2006) process and structure (Jantz 2012). This results, somehow seem to be inconsistent with the level of EBL implementation analysis. The level of EBL implementing the practice. Thus, this result suggests the EBL is unconsciously practiced by librarians due to the correspondence in the characteristics in the present practice (Jantz 2012), and unfamiliarity with the terms (Jantz 2012; Shifaza, Evans and Bradley 2014).

CONCLUSION

Evidence-based practices have rapidly changed some leading fields and disciplines' norms such as medical, education, management and librarianship. EBL practice is somehow proven to be a beneficial practice to libraries and librarians. From this study, it can be concluded that there are three important aspects of EBL practice adoption which libraries should give thoughtful attention to. These are relative advantage, compatibility and top management support, which should be included in any implementation, as they are found to be the determinants in the EBL adoption and implementation. The model derived from this study obtains a moderate Predictive Accuracy Analysis of Coefficient Determination (R²) of 0.300 for Adoption and 0.399 for Implementation. The outcome from this research significantly contributes to the development of an electronic resource decision making using EBL model and an evidence-based library acquisition guideline for electronic resources. The study also reveals that librarians need more time to adapt to new innovations. This conflict is an indication that more research is needed in EBL practice. This study however has its own limitations including librarians' knowledge on EBL and availability of professional librarians in libraries that implement EBL. It can be concluded that EBL study in the context of Malaysian setting is at an infancy stage. Future research might explore the EBL practice in the other aspect of library and information practices, such as subject assessment, information retrieval and user education and training.

ACKNOWLEDGEMENT

The authors received academic funding from the Ministry of Higher Education Malaysia and Universiti Teknologi MARA (UiTM), Shah Alam, Malaysia to conduct this study. Acknowledgment to University of Malaya for providing academic support in conducting this study.

REFERENCES

Aarons, G.A., Hurlburt, M. and Horwitz, S.M. 2011. Advancing a conceptual model of evidence-based practice implementation in public service sectors. *Administration and Policy in Mental Health*, Vol.38, no.1: 4-23. Available at : Available at: doi: 10.1007/s10488-010-0327-7.

Abdekhoda, M., Ahmadi, M., Dehnad, A., Noruzi, A. and Gohari, M. 2016. Applying

electronic medical records in health care: Physicians' perspective. *Applied Clinical Informatics*, Vol.7, no.2:, 341. Available at : doi: 10.4338/ACI-2015-11-RA-0165.

- Abresch, J., Pascual, L., Eickholt, A. L., and Langhurst, A. 2017. EBA in practice: Facilitating evidence-driven e-book programs in both consortium and individual library settings. In *Proceedings of the Charleston Conference*. Available at : doi: 10.5703/1288284316693.
- Al-Bakri, A.A. and Katsioloudes, M.I. 2015. The factors affecting e-commerce adoption by Jordanian SMEs. *Management Research Review*, Vol.38, no.7. Available at : doi: 10.1108/MRR-12-2013-0291.
- AlBar, A.M. and Hoque, M.R. 2017. Factors affecting cloud ERP adoption in Saudi Arabia: An empirical study. *Information Development*, Vol.35, no.1: 150-164. Available at: doi: 10.1177/0266666917735677.
- Alshamaila, Y., Papagiannidis, S. and Li, F. 2013. Cloud computing adoption by SMEs in the north east of England: A multi-perspective framework. *Journal of Enterprise Information Management*, Vol.26, no.3: 250-275. Available at : doi: 10.1108/17410391311325225.
- Atkinson, R. 2002. ARL conference on collections and access for the 21st century scholar: a forum to explore the roles of the research library: a brief report. *Library Collections, Acquisitions, & Technical Services,* Vol.26, no.2: 161-165. Available at : doi: 10.1016/S1464-9055(02)00232-4.
- Awa, H.O, Ukoha, O. and Emecheta, B.C. 2016. Using T-O-E theoretical framework to study the adoption of ERP solution. *Cogent Business & Management*, Vol.3, no.1. Available at: doi: 10.1080/23311975.2016.1196571.
- Basahuwa, C. 2017. Innovation In academic libraries in the 21 century: A Nigerian perspective. *International Journal of Applied Technologies, in Library and Information Management*, Vol.3, no.1: 18–30.
- Bexon, N.P. 2005. Is Evidence Based Librarianship just an attractive theory , or can practicing librarians make it work in real life ? In: *EAHIL Workshop*, Implementation of quality systems and certification of biomedical libraries 2005, Palermo, June 23-25, Available at: http://old.eahil.eu/conferences/2005Palermo/eahil_oral_docs/ pdfcd/Bexon-doc.pdf.
- Blackburn, H. 2011. Millennials and the adoption of new technologies in libraries through the diffusion of innovations process. *Library Hi Tech*, Vol. 29, no.4: 663-677. Available at: doi: 10.1108/07378831111189769.
- Booth, A. 2003. Where systems meet services: towards evidence-based information practice. *Vinelondon*, Vol.33, no.2: 65-71. Available at: doi: 10.1108/03055720310509037.
- Booth, A. 2011. Barriers and facilitators to evidence-based library and information practice: An international perspective. *Perspectives in International Librarianship*, Vol. 1: 1-15. Available at : doi:10.5339/pil.2011.1.
- Booth, A. and Brice, A. 2007. 'Prediction is difficult, especially the future': a progress report. *Evidence Based Library and Information Practice*, Vol.2, no.1: 89. Available at : doi: 10.18438/B82P4S.
- Booth, A. and Eldredge, J.D. 2010. A voyage of discovery: identifying barriers to EBLIP in the Caribbean. *Evidence Based Library and Information Practice*, Vol.5, no.3: 68–72. Available at : doi: 10.18438/B80W5M.
- Brice, A. and Hill, A. 2004. A brief history of evidence-based practice. In *Evidence Based Practice for Information Professionals : A handbook* (Booth, A; pp. 13–35). London: Facet Publishing.
- Brown, C.E, Wickline, M.A. and Ecoff, L. 2009. Nursing practice, knowledge, attitudes and perceived barriers to evidence-based practice at an academic medical center. *Journal of Advanced Nursing*, Vol. 65, no.2: 371-381.

- Buccheri, R. K. and Sharifi, C. 2017. Critical appraisal tools and reporting guidelines for evidence-based practice. *Worldviews on Evidence-Based Nursing*, Vol.14. no 6: 463–472. Available at : doi: 10.1111/wvn.12258.
- Burls, A. 2016. What Is critical appraisal? *International Journal of Evidence-Based Practice for the Dental Hygienist*, Vol. 1, no. 2, 80–85. Available at : doi: 10.11607/ebh.001516.
- Chan, D.C. and Auster, E. 2003. Factors contributing to the professional development of reference librarians. *Library & Information Science Research*, Vol. 25, no.3: 265-286.
- Chao, C. and Chandra, A. 2012. Impact of owner's knowledge of information technology (IT) on strategic alignment and IT adoption in US small firms. *Journal of Small Business and Enterprise Development*, Vol. 19, no.1: 114-131.
- Chung, G.H., Choi, J.N. and Du, J. 2017. Tired of innovations? learned helplessness and fatigue in the context of continuous streams of innovation implementation. *Journal of Organizational Behavior*, Vol.38, no.7: 1130-1148. Available at: doi: 10.1002/job.2191.
- Cleyle, S. and McKenna, J. 2007. Evidence based librarianship backgrounder. *Evidence Based Library and Information Practice*, Vol.3, no.3: 91-93.
- Cooter, L. and Lewis, S. 2006. Libraries Using evidence based library and information practice. *Evidence Based Library and Information Practice*, Vol.1, no.3: 270-274.
- Crumley, E. and Koufogiannakis, D. 2002. Developing evidence-based librarianship: practical steps for implementation. *Health Information and Libraries Journal,* Vo.19, no.2: 61-70. Available at: doi: 10.1046/j.1471-1842.2002.00372.x.
- Dale, J.C., Hallas, D., and Spratling, R. 2019. Critiquing research evidence for use in practice: Revisited. *Journal of Pediatric Health Care*. Vol.33, no.3: 342-346. Available at : doi: 10.1016/j.pedhc.2019.01.005.
- Dahnil, M.I., Marzuki, K.M., Langgat, J., 2014. Factors influencing SMEs adoption of social media marketing. *Procedia Social and Behavioral Sciences*, Vol. 148, no.1: 119-126.
- Dalrymple, P.W. 2013. Applying evidence in practice: What we can learn from healthcare prudence. *Evidence Based Library and Information Practice*, Vol.5, no.1: 270-274.
- Depietro, R. Wiarda, E. and Mitchell, F. 1990. The context for change: Organization, technology and environment. In Tornatzky L.G. and Fleischer M. (eds) *The processes of technological innovation*. Lexington Books. 151-175.
- Dooley, K.E. 1999. Towards a holistic model for the diffusion of educational technologies: an integrative review of educational innovation studies. *Educational Technology & Society*, Vol.2, no.4: 35-45.
- Doom, C., Milis, K., Poelmans, S. 2010. Critical success factors for ERP implementations in Belgian SMEs. *Journal of Enterprise Information Management*, Vol.23, no.3: 378-406.
- Dubey, R., Gunasekaran, A., Helo P,. 2017. Explaining the impact of reconfigurable manufacturing systems on environmental performance: The role of top management and organizational culture. *Journal of Cleaner Production,* vol.141: 56-66. Available at: doi: 10.1016/J.JCLEPRO.2016.09.035.
- Eccles, M., Grimshaw, J., Walker, A. 2005. Changing the behavior of healthcare professionals: The use of theory in promoting the uptake of research findings. *Journal of Clinical Epidemiology*. Available at: doi: 10.1016/j.jclinepi.2004.09.002.
- Edelman, H. 1979. Selection methodology in academic libraries. *Library Resources & Technical Services*, Vol.23, no.1: 33-38.
- Eldredge, J.D. 2000. Evidence-based librarianship: an overview. *Bulletin of the Medical Library Association*, Vol.88, no.4: 289-302.
- Finlay, K. and Finlay, T. 1996. The relative roles of knowledge and innovativeness in determining librarians' attitudes toward and use of the internet: a structural equation modeling approach. Source, Vol.66, no.1: 59-83. Available at: doi: 10.1086/602844.
- Gangwar, H., Date, H. and Ramaswamy, R. 2015. Understanding determinants of cloud computing adoption using an integrated TAM-TOE model Introduction. Journal of

Enterprise Information Management, Vol.28, no.1: 107-130. Available at: doi:10.1108/JEIM-08-2013-0065.

- Gambrill, E. 2018. Contributions of the Process of Evidence-Based Practice to Implementation: Educational Opportunities. *Journal of Social Work Education*, Vol. 54 (sup1): S113–S125. Available at: doi: 10.1080/10437797.2018.1438941.
- Gerrish, K., Ashworth, P., and Lacey A, 2007. Factors influencing the development of evidence-based practice: A research tool. *Journal of Advanced Nursing*, Vol.57, no.3: 328-338. Available at: doi:10.1111/j.1365-2648.2006.04112.x.
- Gholami, Z., Abdekhoda, M. and Gavgani, V. Z. 2018. Determinant factors in adopting mobile technology-based services by academic librarians. *DESIDOC Journal of Library & Information Technology*, Vol. 38, no. 4: 271–277. Available at : doi: 10.14429/djlit.38.4.12676.
- Gillespie, A. 2014. Untangling the evidence: introducing an empirical model for evidencebased library and information practice. *Infromation Research*, Vol.19, no.3. Available at http://www.informationr.net/ir/193/paper632.
- Gillespie, A., Miller, F., Partridge, H., Bruce, C., & Howlett, A. (2017). What do Australian library and information professionals experience as evidence? *Evidence Based Library and Information Practice*, Vol.12, no.1: 97–108. Available at : doi: 10.18438/B8R645.
- Gillson, L., Biggs, H., Smit, I. P. J., Virah-Sawmy, M. and Rogers, K. 2019. Finding Common Ground between Adaptive Management and Evidence-Based Approaches to Biodiversity Conservation. *Trends in Ecology and Evolution*. Elsevier Ltd. Available at : doi: 10.1016/j.tree.2018.10.003.
- Gorman, M. 2000. *Our enduring value: Librarianship in the 21st century*. Chicago, IL: American Library Association.
- Grimshaw, J.M. and Eccles, M.P. 2004. Is evidence-based implementation of evidencebased care possible? *Medical Journal of Australia*. Vol. 180, no.S6: S50-51.Available at: doi: 10.5694/j.1326-5377.2004.tb05945.x
- Grimshaw, J.M., Eccles, M.P., Walker, A.E., 2002. Changing physicians' behavior: What works and thoughts on getting more things to work. *The Journal of Continuing Education in the Health Professions*. Vol. 22, no. 4: 237-243. Available at: doi: 10.1002/chp.1340220408.
- Guyatt, G., Cairns, J., Churchill, D., 1992. Evidence-Based Medicine. *JAMA*, Vol.268, no.17. Available at: doi: 10.1001/jama.1992.03490170092032.
- Hair, J.F., Hult, G.T., Ringle, C,. 2014. A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Long Range Planning. Available at: doi: 10.1016/j.lrp.2013.01.002.
- Haug, A., Graungaard, P.S. and Stentoft, A.J. 2011. IT readiness in small and medium-sized enterprises. *Industrial Management & Data Systems,* Vol.111, no.4: 490-508. Available at: doi: 10.1108/02635571111133515.
- Hiller, S. and Self, J. 2004. From measurement to management: using data wisely for planning and decision-making. *Library Trends,* Vol.53, no.1: 129-155.
- Ho, C.H. and Wu, W. 2011. Role of innovativeness of consumer in relationship between perceived attributes of new products and intention to adopt. *International Journal of Electronic Business Management*, Vol.9, no.3: 258-266.
- Hobart, E. 2019. Catalogue analytics to improve delivery in a special collections library: An evidence-based approach to catalogue maintenance. *Evidence Based Library and Information Practice*, Vol.14, no. 3: 24-127. Available at: doi: 10.18438/eblip29603.
- Holak, S.L. and Lehmann, D.R. 1990. Purchase intentions and the dimensions of innovation: An exploratory model. *The Journal of Product Innovation Management*, Vol.7, no.1: 59-73. Available at: doi : 10.1016/0737-6782(90)90032-A.
- Hoti, E. 2015. The technological, organizational and environmental framework of IS innovation adaption in small and medium enterprises. Evidence from research over the

last 10 years. International Journal of Business and Management, Vol.3, no.4: 1-14.

- Jantz, R.C. 2012. Innovation in academic libraries: An analysis of university librarians' perspectives. *Library and Information Science Research*, Vol.34, no.1: 3-12. Available at: doi: 10.1016/j.lisr.2011.07.008.
- Kai-Ming, A. A. and Enderwick, P. 2000. A cognitive model on attitude towards technology adoption. *Journal of Managerial Psychology*, Vol.15, no.4: 266-282.
- Kaur, M. and Walia, P.K. 2016. Collection development of electronic resources in management libraries of India. *Collection Building*, Vol.35, no.3: 73-83.
- King, D. N. 1987. The contribution of hospital library information services to clinical care: a study in eight hospitals. *Bulletin of the Medical Library Association*, Vol.75 : 291–301.
- Koufogiannakis, D. and Crumley, E. 2002. Research in librarianship: issues to consider. *Library Hi Tech*, Vol.24, no.3: 324-340. Available at: doi: 10.1108/07378830610692109.
- Koufogiannakis, D. 2007. On evidence based practice and innovation. *Evidence Based Library and Information Practice*, Vol.2, no.4: 108-111.
- Koufogiannakis, D. 2013. Academic librarians use evidence for convincing: a qualitative study. *SAGE Open*, Vol.3, no.2: 1-12. Availabel at: doi: 10.1177/2158244013490708.
- Koufogiannakis, D. 2015. Determinants of evidence use in academic librarian decision making. *College & Research Libraries*, Vol.76, no.1: 100-114. Available at: doi: 10.5860/crl.76.1.100.
- Koufogiannakis, D. and Crumley, E. 2006. Research in librarianship: issues to consider. *Library Hi Tech*, Vol.24, no.3.: 324-340. Available at: doi: 10.1108/07378830610692109.
- Krejcie, R. V. and Morgan, D.W. 1970. Determining sample size for research activities. *Educational and Psychological Measurement*, Vol. 38, no. 1: 607–610.
- Lee, J. 2004. Discriminant analysis of technology adoption behavior: a case of Internet technologies in small businesses. *Journal of Computer Information Systems,* Vol.18: 57-67.
- Lee, J.Y., Park, S. and Baker, R. 2018. The moderating role of top management support on employees' attitudes in response to human resource development efforts. *Journal of Management & Organization*. Vol. 24, no.3: 369-387. Available at : doi: 10.1017/jmo.2017.37.
- Lembinen, L. 2018. Academic library directors' strategic decision-making process. *Liber Quarterly*, Vol. 27, no.2: 1–21. Available at : doi: 10.18352/lq.xxxx/0000-0002-5176-2641.
- Lerdal, S.N. 2006. Evidence-based librarianship : opportunity for law librarians? *Law Library Journal*, Vol.98, no.1: 33-60.
- Lietzau, Z. 2009. U.S. public libraries and Web 2.0: what's really happening? *Computers in Libraries*, Vol.29, no.9: 6-10.
- Lin, A. and Chen, N. C. 2012. Cloud computing as an innovation: Percepetion, attitude, and adoption. *International Journal of Information Management*, Vol.32, no.6: 533–540. Available at : doi: 10.1016/j.ijinfomgt.2012.04.001.
- Lin, H. 2014. Understanding the determinants of electronic supply chain management system adoption: Using the technology-organization-environment framework. *Technological Forecasting and Social Change*, Vol.86: 80–92. Available at :doi: 10.1016/j.techfore.2013.09.001.
- Loke, J. 2001. Leadership behaviours: effects on job satisfaction, productivity and organizational commitment. *Journal of Nursing Management*, Vol.9, no.4.: 191-204.
- Luo, L. 2018. Experiencing evidence-based library and information practice (EBLIP): Academic librarians' perspectives. *College Research & Libraries*, Vol. 79, no. 4: 1-19.
- Luciano, M., Aloia, T. and Brett, J. (2019.). 4 Ways to make evidence-based practice the norm in Health Care. Retrieved November 4, 2019, from 4 Ways to make evidencebased practice the norm in health care website: Available at :

https://hbr.org/2019/08/4-ways-to-make-evidence-based-practice-the-norm-in-health-care.

- MacGregor, R.C. and Kartiwi, M. 2010. Perception of barriers to e-commerce adoption in SMEs in a developed and developing country: a comparison between Australia and Indonesia. *Journal of Electronic Commerce in Organizations*, Vol.8, no.1: 61-82. Available at: doi: 10.4018/jeco.2010103004.
- McBride, L. 2015. The role of evidence-based decision making in organizations : A phenomenological study. (Doctorial dissertation, Capella University).
- Miller, F., Partridge, H., Bruce, C., Yates, C. and Howlett, A. 2017. How academic librarians experience evidence-based practice : A grounded theory model. *Library & Information Science Research*, Vol.39, no. 2: 124-130. Available at : doi: 10.1016/j.lisr.2017.04.003.
- Mohamad Bahtiar, Abd Manaf, Z., and Mohamed Shuhidan, S. 2017. Evidence-based librarianship (EBL) in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, Vol.7, no.8: 777–791. Available at : doi: 10.6007/IJARBSS/v7-i8/3294.
- Moore, G.C. and Benbasat, I. 1991. Development of an instrument to measure the perceptions of adopting an information technology innovation instrument development—innovation diffusion—information technology adoption—research methodology. *Information System Research*, Vol.2: 192-222.
- Moran, B. and Morner. C. 2017. *Library and Information Centre Management*. 9th ed. England Wood, United States: ABC-CLIO.
- Mustafa, A., Harun, N.H. and Endin, M.Z. 2014. Understanding e-book acceptance through Technology Acceptance Model (TAM Model). In 2014 2nd International Conference on Information and Communication Technology, ICoICT 2014, 2014.
- Nazim, M. and Mukherjee, B. 2011. Implementing knowledge management in India academic libraries. *Journal of Knowledge Management Practice*, Vol.12, no.3: 1-14.
- Oakleaf, M. 2010. *The value of academic libraries: A comprehensive research review and report*. Chicago, IL: American Library Association.
- Ogendi, N.C. 2017. Implementation of knowledge management as a tool for sustainable competitive advantage at the University of Nairobi Library, Kenya. (Master thesis University of Nairobi).
- Oguz, F. 2016. Organizational influences in technology adoption decisions: a case study of digital libraries. *College & Research Libraries*, Vol.77, no.3: 314-334. Available at: https://doi.org/10.5860/crl.77.3.314.

Patel, S. 2010. An investigation of counselor educators " attitudes towards evidence-based practices and perceived barriers to the incorporation of evidence-based practices in counselor education curricula. (Doctorial dissertation, University of Central Florida).

- Plutchak, T.S. 2003. The art and science of making choices. *Journal of the Medical Library Association : JMLA,* Vol.91, no.1: 1-3. Available at : https://www.ncbi.nlm.nih.gov/pmc/articles/PMC141179/.
- Pretty, H.J. 2007. Barriers to evidence-based library and information practice. *Feliciter*, Vol.53, no.1: 30-32.
- Rabina, D.L. and Walczyk, D.J. 2007. Information professionals' attitude toward the adoption of innovations in everyday life. *Information Research*, Vol.12, no. 4: 1-5.
- Ramzan, M. and Singh, D. 2010. Factors affecting librarians' attitudes toward IT application in libraries. *The Electronic Library*, Vol.28, no.2: 334-344.
- Richards, D. and Eakin, D. 1997. *Collection Development and Assessment in Health Sciences Libraries*. 1st ed. Lanham, MD: Scarecrow Press.

Rogers, E. 1983. Diffussion of Innovations. The Free Press.

Rogers, E.M. 1995. *Diffusion of Innovations. Macmillian Publishing Co.* 3rd ed. New York: The Free Press.

- Sackett, D.L., Rosenberg, W.M.C., Gray, J.A.M, 1996. Evidence based medicine: what it is and what it isn't. *BMJ*, Vol.312, no.7023. Available at : doi: 10.1136/bmj.312.7023.71.
- Sales, A., Smith, J., Curran, G. 2006. Models, strategies, and tools. Theory in implementing evidence-based findings into health care practice. *Journal of General Internal Medicine*, Vol.21, Suppl 2: S43-9.
- Sanni, S.A., Ngah, Z.A., Karim, N.H.A, 2013. Using the diffusion of innovation concept to explain the factors that contribute to the adoption rate of e-journal publishing. *Serials Review*. Vol. 39, no.4: 250-257. Available at: https://www.tandfonline.com/doi/ abs/10.1080/00987913.2013.10766406.
- Shifaza, F., Evans, D. and Bradley. H. 2014. Nurses' Perceptions of Barriers and Facilitators to Implement EBP in the Maldives. *Advances in Nursing*. ID 698604 : 1–7. Available at: doi: 10.1155/2014/698604.
- Stuart, W.D. 2000. *Influence of sources of communication, user characteristics and innovation characteristicson adoption of a communication technology*. (Doctorial dissertation, University of Kansas).
- Swanberg, S. M., Dennison, C. C., Farrell, A., Machel, V., Marton, C., O'Brien, K. K., ... Holyoke, A. N. 2016. Instructional methods used by health sciences librarians to teach evidence-based practice (EBP): a systematic review. *Journal of the Medical Library Association : JMLA*, Vol.104, no. 3: 197–208. Available at : doi: 10.3163/1536-5050.104.3.004.
- Tabesh, N. 2015. From data to decision: An implementation model for the use of evidencebased medicine, data analytics, and education in transfusion medicine practice. (Doctorial dissertation, University of Winconsin-Milwaukee).
- Taylor, S. and Todd, P.A. 1995. Understanding information technology usage: a test of competing models. *Information Systems Research,* Vol.6, no.2.: 144-176.
- Tenopir, C. and King, D.W. 2002. Reading behavior and electronic journals. *Learned Publishing*, Vol. 15, no. 4: 259-265. Available at: doi: 10.1087/095315102760319215.
- Veldhuis, T. 2018. *Prisoner radicalization and terrorism detention policy: Institutionalized fear or evidence-based policy making?* London: Routledge.
- Walker, J.H., Saffu, K. and Mazurek, M. 2016. An empirical study of factors influencing ecommerce adoption/non-adoption in Slovakian SMEs. *Journal of Internet Commerce*, Vol.15, no.3. Available at: doi: 10.1080/15332861.2016.1191049.
- Warren, J.I., McLaughlin, M. and Bardsley, J. 2016. The strengths and challenges of implementing EBP in healthcare systems. *Worldviews on Evidence-Based Nursing*, Vol.13, no.1: 15-24.
- Whitney, W., Keselman, A. and Humphreys, B. 2017. Libraries and librarians: Key partners for progress in health literacy research and practice. *Information Services & User*, Vol.37, no.1: 85–100. Available at : doi: 10.3233/978-1-61499-790-0-415.
- Woodcock, L. 2014. The promise and perils of evidence-based collection management. *BCLA Browser: Linking the Library Landscape,* Vol.6, no.2. Available at: https://www.bclabrowser.ca/index.php/browser/article/view/617/750.
- Wu, W.W. 2011. Developing an explorative model for SaaS adoption. *Expert Systems with Applications*, Vol.38, no.12.: 15057–15064. Available at: doi: 10.1016/j.eswa.2011.05.039.
- Zolkepli, I.A. and Kamarulzaman, Y. 2015. Social media adoption: the role of media needs and innovation characteristics. *Computers in Human Behavior*, Vol.43. no. 1: 189-209. Available at : doi: 10.1016/j.chb.2014.10.050.



APPENDIX

Dear Respondent,

I am a postgraduate (Ph.D.) student from Faculty of Computer Science and Information Technology, Department of Library and Information Science, University Malaya. I am conducting a study examining the **Determinants in Adopting Evidence-Based Librarianship (EBL) in Electronic Resources Acquisition Decision (ERAD) among Librarians.** The finding of this study will provide a significant solution for the acquisition of the electronic resources. It is my understanding that you have somehow directly or indirectly involved in the acquisition process in your library, with your expertise and experience, I am interested to invite you to participate in the survey. I hereby enclosed the questionnaire for your kind response. Generally, the questionnaire is divided into 6 parts: Part A: Technological and Organizational Characteristics, Part B: Concern of EBL; and Part C: User Needs and Preferences, Part D: EBL Adoption, Part E: EBL Implementation and Part F: Demographic.

I would like to stress that your participation in this study is voluntary and all information provided are strictly confidential. Please find the consent letter (page 2 of the questionnaire booklet) for your review, if you choose to participate in this study, please fill-in the form and return it along with the complete questionnaire in the self-addressed envelope.

I am excitingly waiting for your feedback and learn from your expertise in library acquisition management.

Your participation is greatly appreciated.

Thank you,

Student

A'dillah Binti Mustafa PhD Candidate Faculty of Computer Science and Information Technology, Department of Library and Information Science, University Malaya. Mobile: 017-6147685

Research Supervisor

Associate Professor Dr Noorhidawati Abdullah Faculty of Computer Science and Information Technology, Department of Library and Information Science, University Malaya.

Consent Letter

Before agreeing to participate in this study, the participant is advised to read and understand the following procedures:

Title of Study: Determinants in Adopting Evidence-Based Librarianship (EBL) in Electronic Resources Acquisition Decision (ERAD) among Librarians.

Purpose of study: this study tries to understand the evidences adopt in library decision making process, with a special focus on the acquisition of electronic resources.

Procedures: Questionnaire is used to gather details on EBL practice and concern among librarians. A questionnaire will be sent to approximately 278 respondents over the county. Respondents are library management team and librarians involved directly with the acquisition process. Estimated time to complete this questionnaire is between 20-30 minutes. Respondents are given 5 working days to complete and return the questionnaire using the self-addressed envelope. A reminder notice will be sent via email or a phone call will be made to remind respondents after the given period end.

Confidentiality: All data and information gathered are strictly private and confidential

I have read and understand the above contents and agreed to participate in this study.

Respondent's Signature

Date

What is Evidence-Based Librarianship (EBL)?

"EBL seek to improve library practice by utilizing the best available evidence in conjunction with a pragmatic perspective developed from working experience in librarianship"

(Eldredge, 2000)

With reference to the above definition, this study seeks to investigate the adoption of the EBL practice among librarians in their Electronic Resources Acquisition Decision.

Please ($\sqrt{}$) at the appropriate scales to indicate your agreement to the following statements regarding e-resources acquisition.

Part A: Technological and Organizational Characteristics

| | 1= Strongly Disagree, 2= Disagree, 3 = Somewhat Disagree, 4 =Ne 5 = Somewhat Agree, 6 = Agree 7= Strongly A | ither gree | Agree | e or D |)isagr | ee, | | |
|-----|--|---------------|-------|--------|--------|-----|---|---|
| Usi | ng EBL | | | | | | | |
| 1 | enables me to accomplish tasks more quickly. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2 | improves my quality of work. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3 | makes my daily job easier. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4 | improves my job performance. | 1 | 2 | 3 | 4 | 5 | 6 | / |
| 5 | enhances effectiveness on my job. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6 | gives me greater control over my work. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7 | increases my productivity. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | , I find it is difficult to integrate my current work with the evidence. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9 | EBL fit well with the way I work. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10 | EBL fit well into my work style. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11 | The implementation of EBL is compatible with my work way. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12 | EBL is flexible to use. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13 | Overall, I find using EBL is advantageous to my job. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14 | Using EBL exposes me to the sensitivity of information as evidence. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15 | My organization hires highly specialized personnel for EBL. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16 | We have sufficient resources to implement EBL. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17 | Gathering evidence takes up too much of my time. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18 | We allocate some amount of budget to implement EBL. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19 | My top management exhibits a culture of innovativeness. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20 | My top management provides strong leadership and engagement in the implementation of EBL. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | 1= Strongly Disagree, 2= Disagree, 3 = Somewhat Disagree, 4 =Ne 5 = Somewhat Agree, 6 = Agree 7= Strongly A | ither gree | Agree | e or D | oisagr | ee, | | |
|----|--|---------------|-------|--------|--------|-----|---|---|
| 21 | My top management is likely to consider the adoption of EBL as strategically important. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 22 | My top management is willing to take risks involved in the adoption of EBL. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 23 | My organization provides me complete training in practicing EBL. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 24 | My level of understanding has substantially improved after going through the training program on EBL. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 25 | The training gave us confidence in implementing EBL. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Please ($\sqrt{}$) at the appropriate scales to indicate your agreement to the following statements regarding e-resources acquisition. Part D: EBL Adoption

1= Strongly Disagree, 2= Disagree, 3 = Somewhat Disagree, 4 = Neither Agree or Disagree, 5 = Somewhat Agree, 6 = Agree 7= Strongly Agree

| 1 | Adopting EBL is advantageous. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| 2 | Considering adopting EBL in near future. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3 | Adopting EBL is beneficial, but I am still researching on it. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4 | Declining the adoption of EBL. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Please ($\sqrt{}$) at the appropriate scales to indicate your agreement to the following statements regarding e-resources acquisition.

Part E: EBL Implementation

1= Not Implement, 2= Plan to Implement, 3 = Undecided, 4 = Partially Implement 5 = Implement, 6 = Close to Full Implement 7= Fully Implement

| ١r | efer to | | | | | | | |
|----|--|---|---|---|---|---|---|---|
| 1 | a research report in acquisition decision. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2 | supplier statistical report in acquisition decision. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3 | literature report in acquisition decision. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Г

Γ

| | 1= Not Implement, 2= Plan to Implement, 3 = Undecided, 4 = 5 = Implement, 6 = Close to Full Implement 7= Fully | Parti Imple | ally Ir emen | npler t | nent | | | |
|----|---|----------------|-----------------|------------|------|---|---|---|
| 4 | reviews in the acquisition decision (Example: publisher's review and reader's review). | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5 | systematic reviews in acquisition decision. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6 | a Bibliometric report in acquisition decision. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7 | internal standard (Standard Operating Procedure) in acquisition decision. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | to best practice in acquisition decision. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9 | unpublished survey report in acquisition decision. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10 | in-house usage statistics in acquisition decision. <i>(Example: ILL report)</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11 | collection analysis report in acquisition decision. (Example: Circulation report) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12 | professional standard in acquisition decision. (Example: Standard Perpustakaan dan Kolej dan Universiti Awam) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13 | professional guidelines in acquisition decision. (Example: IFLA Standard for Information Literacy) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| 1= Not Implement, 2= Plan to Implement, 3 = Undecided, 4 = 5 = Implement, 6 = Close to Full Implement 7= Fully | Parti Imple | ally Ir emen | mpler t | nent | | | |
|---|----------------|-----------------|------------|------|---|---|---|
| l consider | | | | | | | |
| 14 professional tacit knowledge in acquisition decision. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15 my own experience in acquisition decision. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16 other librarians experience in acquisition decision. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17 the expert opinion in acquisition decision. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

.

٦

Mustafa, A. & Noorhidawati, A.

Please ($\sqrt{}$) at the box that represent you most.

Part F: Demographic

| 1. | Gender: Male | | Fem | ale | |
|----|---|------------|-----|----------|-------|
| 2. | Number of Years | | | Service: | Years |
| 3. | Highest academic qualification Doctor of Philosophy Master Degree Bachelor Degree Diploma Professional Certificate | | | | |
| 4. | What is your current job responsibility? Chief Librarian | | | | |
| | Deputy Chief Librarian | | | | |
| | Head of Department | | | | |
| | Head of Unit | | | | |
| | Acquisition Librarian | | | | |
| | Circulation Librarian | | | | |
| | Reference Librarian | | | | |
| | Liaison Librarian | | | | |
| | Other, (please specify): | | | | |
| 5. | What type of library are you currently wo Public Library | orking at? | | | |
| | Public Academic Library | | | | |
| | Private Academic Library | | | | |
| | College Library | | | | |
| | Special Library | | | | |
| 6. | Organizational/ library size Less than 10 staff | | | | |
| | 10 to 50 staff | | | | |
| | 50 to 100 staff | | | | |
| | More than 100 staff | | | | |

7. Source(s) of funding Federal Government State Government Local Authority Parent organization Foundation

Others, (please specify): ____

8. Comments or feedback on EBL practice in your library:

End of Questionnaire, Thank You.