

# **Organizational Factors Influencing the Adoption of EBL Practices**

**Ida Nadia Mohamad Bahtiar, Zuraidah Abd Manaf and Shamila  
Mohamed Shuhidan**

Faculty of Information Management, UiTM Puncak Perdana,  
Shah Alam, MALAYSIA

DOI: 10.6007/IJARBSS/v7-i8/3295 URL: <http://dx.doi.org/10.6007/IJARBSS/v7-i8/3295>

## **Abstract**

Evidence-based librarianship (EBL) refers to librarian approach to encourage and practice evidence-based activities in library, employs the best available evidence in decision making.

The purpose of this paper is to examine the relationship between organizational factors with EBL adoption in Malaysian academic libraries from academic librarian perspective. The paper utilizes quantitative methodology and use survey form as the instrument; 234 survey forms were distributed to all Malaysian Public Institution of Higher Education. Finding of the study highlight that the organizational factor is significantly predicted EBL adoption of academic libraries in Malaysia and the results demonstrated that organizational factor was found to be a significant of EBL adoption. The paper employs statistical method to administrate the relationship between organizational factor and evidence based librarianship. It only covers Malaysian academic librarian from public university, however, and as such the outcomes are merely represents only to this group. This paper portrays librarian standpoint in regards the connection between organizational factor with evidence based librarianship and it may benefits to evidence based practitioners and library community, or other researcher with interest in the subject matter.

**Keywords** – Organizational analysis, Evidence-based Practices, Evidence-based Librarianship (EBL); Evidence-based Practices (EBP); Evidence-based Library and Information Practices (EBLIP); Academic Libraries, Library Management; Malaysia

## **1.0 Introduction**

Evidence based practices evolves not only in medical and healthcare services, it spread and blend in to diverse field of study including librarianship to become an evidence based librarianship (Abd. Manaf & Mohamad Bahtiar, 2015; Rabi, 2016). The adoption of EBL was first described as “an approach to information science that promotes the collection, interpretation, and integration of valid, important and applicable user reported, librarian observed, and research derived evidence. The best available evidence moderated by user needs and preferences is applied to improve the quality of professional judgments” (Booth, 2002), while Eldredge (2002) stated that EBL “seeks to improve library practice by utilizing the best available evidence in conjunction with a pragmatic perspective developed from working

experiences in librarianship, the best available evidence might be produced from either one, although EBL encourages using more rigorous forms over less rigorous forms of evidence when making decisions". EBL act as a supporting component to library in their real life situation with up-to-date practice, provide any best available practices, and offer reliable and trustworthy research evidence (Abd. Manaf & Mohamad Bahtiar, 2015). As the world of librarianship is become tougher, EBL is a good starting point to strengthen library core services, enhance library capability and capacity in solving problems as well as to reduce risk in decision making.

There are numbers of factors had been recognized as barrier to the advancement of EBL, however organizational factor is a major challenges in integrating evidence activity into library practices (Rosenheck, 2001; Johnson & Austin, 2005). The dispersion of EBL indication need a close mutual aid between librarian, management and institution as they are the key player in achieving the effective evidence based practices in library.

Most arising problems in organization are causes from restriction to access evidence (Barria, 2014; Dalrymple, 2010; Koufogiannakis & Crumley, 2006; Todd, 2008), lack of research skills (Rycroft-Malone et al, 2004; Booth & Eldredge, 2010; Brice & Booth, 2005), insufficient critical analysis skills (McNicol, 2005; Booth & Brice, 2007; Booth & Brice, 2003; Cotter et al., 2006), time constrain (Britt et. al., 2003; Lerdal, 2006; Pretty, 2007), poor organizational support (Russell, 2008; Crumley & Koufogiannakis, 2002; Fisher & Robertson, 2007), poor leadership (Harvey et al, 2002; McCormack et al, 2002), limitation of facilities and resources (Clyde, 2006; Turner, 2002a; Turner, 2002b) and lack of research culture (McNicol, 2005; Grefsheim et al., 2008). All this issue reflects the internal and external hurdle at the organizational level. It requires management attention to find possible opportunity for discussion and at the same time enhance librarian competency and create strategic EBL policy.

## **2.0 EBL in Malaysia**

There is a new demands in Malaysian that requires librarian to adopt the concepts of evidence based practices in library either to supports user needs as well as to maintain librarian profession (Hassan et al., 2009). This is significant to prepare librarian with relevant skills to deal with library and user current needs. Universiti Sains Malaysia organized an EBL workshop in 2007 with theme 'The Evidence Based Practice: Train the Trainers Workshop'. At the end of the session, they had highlighted eight new librarian role, consist of; the role in information retrieval and information searching, the role in teaching effective literature searching skills, the role as tutor, facilitator and educator in academic curriculum; the role as faculty librarians and subject librarians; the role in advocating library services (e.g, clinical area – for clinical librarian role); the role in designing search strategies and comprehensive searching strategies; the role in database maintenance and the role in hand-searching for local journal publication.

Santra (2007) discovered that Malaysian librarians were not well trained and their activities in library was just at the general level. She highlighted that librarian skills in synthesizing, evaluation of information and answering problem-based questions is uncertain.

Hassan et al. (2009) believed that EBL employment can be fulfilled by integration in students' curriculum, collaboration with academicians and schools, advanced training in information searching skills, designing searching strategies, group tutorials, road tours as well as survey. Yet, the EBL movement in Malaysia is demoralising even though its growth is widely spread at the international level (Hassan et al., 2009).

Hassan et al. (2009) listed problems encountered by librarians in conducting EBL activities in Malaysia setting, such as lack of support from schools; lack of qualified and skilled librarians; communication and language barrier; lack of knowledge in specific terms or jargons; lack of pedagogy skills; not updated of the latest information resources on site or beyond; inadequate network infrastructure, computer facilities and IT infrastructure; lack of confidence and self-esteem; time constraint and user attitude. This shows librarians are struggling to balance library duty and other significant efforts to tailor library services and resources that benefit library and users.

There are two similar workshops on EBL conducted by International Medical University (IMU) in 2012 and 2013. The main goal is to introduce and support EBL application in Malaysia and spread the knowledge to all libraries in Malaysia. Unfortunately, the workshop was unsuccessful because of small number of involvement from libraries, information centre and related institutions (IMU, 2013). They identified the main cause is 'due to the mistaken perception that EBLIP is directed at medical librarians where by available participants were librarians from institutions that offer degree courses in medicine'.

Besides, there are also international movements called EBLIP (Wilson, 2011) that initiate EBL at the international level that turned into a supporting association to local library that might need help to support EBL development. Therefore, Malaysian library should take this opportunity to encourage, promote, create awareness activities internally or at national level and share the appraisals and research findings to create a good evidence basis for Malaysian libraries especially the academic library. Despite the fact it is difficult for librarians in Malaysia to diffuse the concept and culture taken from the Western country (Hassan et al., 2009), but research culture is essential and the employment of EBL is important to support decision making and simultaneously encourage them to conduct research on their own.

Thus, the objective of this paper is to examine the relationship between organizational factors with EBL adoption in Malaysian academic libraries from an academic librarian perspective. In order to achieve the objective, the methodology for organizational factors association with EBL adoption in Malaysian academic libraries was proposed. Although there are many studies on EBL in LIS literature, there are still limitations in existing literature focussing on Malaysian setting.

The remaining of this paper consists of methodology, findings and discussion, recommendations and future works as well as conclusion of the study.

### **3.0 Organizational factor**

The attainment of EBL integration into library practices are constructed by the evidence nature, role, and applicability with the arising issues that want to be solved. Decisions are made using the most relevant evidence besides and at the same time it appropriate with the research setting and practical condition. The dissemination of EBL especially in decision making can be made from top to bottom or bottom to top of the organization. According to Rosenheck (2001), if the motivation comes from the higher management, the strategy had a bigger possibility to give broader influence and if the motivation is from bottom of the organization or first layer employee, it is easier to get cooperation with them because does not need involvement from many stakeholders. Then, the EBL initiatives must be relevant, appropriate and consistent with organizational mission and vision. The outcome must be verified and decision for implementation must piloted via a proper channel.

The presence of subcultures in organization really important and management might need to give special attention in ensuring the effectiveness of EBL adoption in the organization. Subcultures may affect the staff behaviour, library achievement as well as staff development. In addition, different culture will need different approach to make EBL appropriately fit in and diffuse or assimilate visibly into the organization. By learning subculture, barrier can be reduce, the success rate of execution can increase and strategic planning for EBL advancement can be arranged. Sanders et al. (2009) & Fuller et al. (2007) proven that the organizational factor is one of significant predictors to EBL implementation.

#### **3.1 Policy**

Policy provide method of action, guide and then enforce by the management to succeed organizational objectives. At the same time policy also employed as a basis for decision making. Davies & Nutley (2002); Kitson, Harvey & McCormack (1998) explained that there are few reasons that permits evidence influence policy and practices, that are; the compliance on the nature of evidence, a strategic method to the formulation of evidence and the growth of knowledge foundation, disseminate knowledge efficiently with the development of effective means for accessing to information, strategy to increase the evidence used in policy and practices, and, complex procedure at the organizational level. Besides, varies subculture in organization also likely to influence policy and practices whether the top management or the operational line. Either geographic location or by departmental designation, it constitutionally reflect positive or negative vibrate to the organization. Subculture will give sense of identity that shaped employee's behaviour and attitudes and cultivate norms to the organization (Koufogiannakis, 2013).

The combination of policy and organizational change can lead to a large impact to EBL development in library. The values of EBL can interpret library potential and bring many positive changes. Placing policy and practice together with EBL is not an easy task. It might need a small adjustment in common library practices such as librarian's methods in completing a task or management's approach in solving problems. EBL techniques can improve policy. It also

make the procedure significant in providing better library services and assist management in delivery wise decision making. In order to sustain EBL dissemination across departments, the organization are needed to support EBL. They must initiate others strategy to encourage the growth of EBL by creating a policy knowledge that comprises two stage, namely, policy development stage and policy implementation stage. Policy development stage is written procedure and policy implementation stage is the process of employment and the outcome (Johnson & Austin, 2005). In consequence, the changes in policy effect organization culture and constantly effect EBL practices.

### 3.2 Training

Other than policy, organization also encourage to instate an EBL strategy that support skills development and training program for employee. For that reason, Sheldon & Chilvers (2000) recommends organization to allows employee to attend related workshop or training programs to enhance their skills, expose employee with research-evidence task for decision making, let them involve in meetings that require them deliver outcomes which is gained from past research, provide necessary facilities for evidence based activities, put some enforcement that encourage them to have responsible and appraise evidence, as well as arrange collaboration with related research institute to create effective path to learn and practice EBL effectively. Such strategy also can be executed internally and externally (Johnson & Austin, 2005) such as through specific leadership proficiency and management support. They added that the EBL training purpose should include hands-on problem solving exercises.

Regular participation in training program will make them familiar, well informed with different EBL approaches and its effectiveness for several conditions (Sheldon and Chilvers, 2000). When training of EBL was made compulsory to librarian, the awareness, research culture and utilization rate will increase. Hodson (2003) also clarified that librarian research ability will expand align with critical appraisal skill. Austin & Claassen (2008); Varnell et. al. (2008); & Gavgani (2009) identify the important of training in knowledge building and constructing creative library innovation. So, without training and continuous educational support from organization, they are having lack of confidence and incompetence in some aspect of librarianship (Houser, 2011).

### 3.3 Organizational support

Employing evidence into practice is not an easy task. Rycroft-Malone (2004) stated that organizational fit and adequate resources is significant to each other and contribute to the success of EBL implantation. Management and stakeholders is likely a major influencer (Durlak & DuPre, 2008; Greenhalgh et al., 2004; Fixsen et al., 2005). The issue of organizational support is growing along EBL development in various sector especially librarianship. Some recognized managerial matters were, poor management support (Cotter and Lewis, 2006; Bexon, 2007; Booth & Eldredge, 2010); unconcerned in significant of research (Russell, 2008); reluctant to contribute in data collection (Russell, 2008); workplace surroundings are not encouraging (Crumley & Koufogiannakis, 2002); absence of research incentives (Dalrymple, 2010); scarcity of

appraisal support (Fisher & Robertson, 2007); and leadership issues (Taylor et al., 2011; Stetler et al., 2011; Newton et al., 2003).

Commitment and affection from leaders have direct influence to the effectiveness of the implementation of EBL (Helfrich et al., 2007) feasibly through interpersonal networks and communication (Leeman et al., 2007). This happen when leader purposely influence individuals or group of people (Gill, 2012; Yukl, 2006). Leadership also had potential to influence organizational culture and organizational performance (Ogbonna, 2000), organizational change (Battilana et al., 2010) and organizational innovation (Denti & Hemlin, 2012). Leadership, leader and management are mutual term used by researcher (Boström et al., 2006; Damschroder et al., 2011; Forsman et al., 2012; Gifford et al., 2007; Sandstrom et al., 2011). Reichenpfader et. al. (2015) stated that usually leadership known as leadership support or management support.

### 3.4 Supporting resources

Rycroft-Malone (2004); Oh (2008); Leach (2006); Olade (2004) & Nagy et. al. (2001) stated that resources deficiency is one of barrier to EBL implementation. Similar with Jensen (2011), he found that the facilities that supports EBL is insufficient in library. Hassan et al. (2009) found that library in Malaysia are facing insufficient infrastructure and facilities such as computer and internet connection. Similar with livonen & Namhila (2012), they stated that libraries are failed to provide adequate computer to user and at the same time facing limited access to Internet wireless that prevent users from accessing electronic resources using their own laptop. They added that in 2007, this issues gained attention from media and university management because the problem is failed solved by library and has affected students' performance. However, Nai et. al. (2010), stated that by improving the facilities in the library such as smooth access to information and research evidence together with easy to use available resources is a top priority to all library.

Saenwa et al. (2009) stated that technology as resources is a basic needs for a library that should not be neglected whereas facilities such as space and convenient library environment is important that welcome user to use the library. Rycroft-Malone (2004) added that the association between library resources and EBL implementation is complicated because there are other connections while allocate, target and manage library resources. Sheldon & Chilvers (2000) believed that the significant of the facilities is important so that they can stay up-to-date with the latest and appropriate research. Whereas, Rabiou (2016) found that almost all librarian believed that virtuous facilities provided by the library able to build better information society. This shows information and evidence had a direct effects to the research and at the same time resources and facilities be the spine to success evidence based practices. Rabiou (2016) added 'the application of ICT and related facilities was never an accident, it was intended to bring about effectiveness and efficiency in the way and manners information services are deliver'.



Thus, this study attempts to determine the organizational factors that affect EBL adoption in Malaysian academic libraries.

#### **4.0 Research methodology**

##### **4.1 Methodology for variables**

This study emphasized on organizational factor in relation to managerial issues which contribute to the success of evidence based practices in the library including, policy which refers to the rules, regulations and guidelines being adopted by the library; training which refers to the courses offered by the organization to equipped librarians with the necessary skill in order to support the evidence-based activities in library; organizational support which refers to the employees' faith in that their organization values their contributions, cares about their well-being, and fulfils socio-emotional needs; and supporting resources refers to the resources and facilities that available in the library.

##### **4.2 Methodology for the study**

The population frame for this study had been taken from 20 Malaysian academic library. The sampling frame was derived from academic library official websites. List of library staff names were provided in each websites including other details such as contact number, position, email and divisions he or she served. The population is the academic libraries in Malaysia.

The total population for this study is 624 librarians. According to Krejcie & Morgan (1970), when the population size (N) is between 600-649 the recommended sample size (S) that appropriate for the study is 234. Hence, a sample of 234 librarians was randomly selected from the Malaysian academic librarian total population. Therefore, simple random sampling (probability sampling) is the best suit the needs of this study.

This study was carried out using quantitative approach. Structured questionnaire was developed and used as instrument to measure relationship organizational factor and EBL adoption in Malaysian academic libraries. This approach is consistent with previous studies relating to evidence-based studies and adopt quantitative method as the research technique such as Glynn (2006), Gavgani (2009) and Koessl (2009).

The questionnaire contain close-ended questionnaires and divided into three sections with cover letter introducing the objective of the study. The first section consist of demographic profiles such as age, gender, education background and working experiences. Followed by level of evidence and source of evidence used by librarian. This questions designed in the form of 7-Likert scale which was adapt and adopt from Gavgani (2009). Second section used to capture information on organizational features that influence the adoption of EBL. This section is self-developed questions which the content derived from previous research on barriers and challenges that previously recognised as the organizational issues that adoption of EBL. Most of the questions were gathered from Booth (2011) and Hiller, Kyrillidou & Self (2008). The last

section also in the form of 7-Likert scale consisting questions on librarian perception on EBL domains. This question is adopted from Koufogiannakis (2002).

Data was extracted and entered into IBM SPSS Statistical version 20. Validity and reliability test was done to confirm the content of the questionnaire. Pre-test and pilot test were conducted to ensure the quality and validity of the questionnaire. Comments from participants were taken into consideration. Some alterations were made and final questionnaire was produced.

Data analysis for this study comprises descriptive statistics and inferential statistics. Descriptive statistics were used to delineate demographic features of the respondents. While inferential statistics involves regression analysis.

#### 4.3 Ethical consideration

Permission from the Ministry of Higher Education to conduct research in the academic libraries and also get consent from the top management of the libraries to distribute questionnaires in their library. Some of the academic libraries requires letter of ethics from the universities. Therefore, the letter was requested at the post-graduate office and once the letter ready it was attached with other related documents including the survey forms.

Subsequently, the consents from the ministry and academic libraries were all set. All the academic library agreed to involve with the research. A number of 234 survey forms were distributed randomly among the libraries.

### 5.0 Findings and discussion

#### 5.1 Demographic data

There are 234 questionnaire been distributed and only 85.5 percent of the questionnaire were returned and usable. Table above showed that returned responses were from 30 percent male and 70 percent female respondents. Half of them were master holder. Partial of them were between 30 – 39 years old. Half of them had working within 6 to 15 years of experience in librarianship.



**Table 2.0**  
**Respondent's Profile**

<b>N = 200</b>	<b>n</b>	<b>Percentage (%)</b>
<b>Gender:</b>		
Male	60	30.0
Female	140	70.0
<b>Education attainment:</b>		
Degree	97	48.5
Master	102	51.0
PhD	1	0.5
<b>Age:</b>		
20-29	27	13.5
30-39	106	53.0
40-49	43	21.5
50 and above	24	12.0
<b>Working experience:</b>		
Less than 1 year	3	1.5
1-5 years	36	18.0
6-10 years	68	34.0
11-15 years	43	21.5
16-20 years	20	10.0
21 years and above	30	15.0

This findings shows that all respondents have proper educational background in librarianship. This is similar with Richer & Cahill (2014) where they found that most of the librarian have master degree with librarianship certification. Usually in Malaysia research courses have been taught since degree level while the advance methodology was taught in master level. But teaching and learning research in university and practising research in the field is different. The librarianship courses focussing on techniques of conducting research in the context of researcher, however in library setting librarians need to appraise and use research in the context of practitioner who engaged direct to EBL (Rubin, 2008). She added that librarianship student when they enter the industry they are so eager to be a service provider and have no interest to practice research until they forget what had been learn.

## 5.2 Descriptive analysis for organizational factor

Table 3.0 demonstrates the descriptive profile for Organizational Factor. In addition to that, results indicates the Organizational Factor of Malaysian academic librarians has level of mean (M) = 5.86 with standard deviation (SD) = 0.859. This shows that librarian of Malaysian academic libraries are slightly agreed that their organization be likely to influence the adoption of EBL in their libraries. Referring to the scale item, mean (M) level for OF.policy1 (EBL activities in library is essential to the mission of university) is 5.82 with standard deviation (SD) = 0.811. Followed by OF.policy2 (Library policy should comprise EBL activities) with mean (M) = 5.79 and standard deviation (SD) = 0.838, OF.policy3 (EBL activities should be made clear and understandable in library policy) with mean level (M) = 5.93 and standard deviation (SD) = 0.786, OF.policy4 (Library policy relating to EBL activities should be aligned with university goals in supporting research activities) with mean level (M) = 5.79 and standard deviation (SD) = 0.776, OF.training1 (Offer EBL training for library staff) with mean (M) = 6.06 and standard deviation (SD) = 0.739, OF.training2 (Offer EBL workshop for library staff) with mean (M) = 6.05 and standard deviation (SD) = 0.724, OF.training3 (Offer EBL skill development program for library staff) with mean (M) = 6.04 and standard deviation (SD) = 0.753, OF.training4 (Offer an on-going EBL mentoring program for library staff) with mean (M) = 5.97 and standard deviation (SD) = 0.792, OF.organizationalsupport1 (Financial support should be provided for EBL activities) with mean (M) = 6.01 and standard deviation (SD) = 0.848, OF.organizationalsupport2 (Top management encourage EBL activities in library) with mean (M) = 6.14 and standard deviation (SD) = 0.790, OF.organizationalsupport3 (Rewards will be given to those who are active in EBL activities) with mean (M) = 5.57 and standard deviation (SD) = 1.039, OF.supportingresources1 (Library facilities are adequate for conducting EBL activities) with mean (M) = 5.52 and standard deviation (SD) = 0.982, OF.supportingresources2 (Library resources are adequate for conducting EBL activities) with mean (M) = 5.64 and standard deviation (SD) = 0.963, OF.supportingresources4 (Supporting software for electronic resources are available) with mean (M) = 5.85 and standard deviation (SD) = 0.932, and OF.supportingresources5 (Supporting software for data analysis are available) with mean (M) = 5.56 and standard deviation (SD) = 1.110.

**Table 3.0**  
**Descriptive Analysis of Organizational Factor**

Scale items		Mea n (M)	Std. Error (SE)	Std. Dev. (SD)	Var.	Mi n	Ma x
OF.policy1	EBL activities in library is essential to the mission of university	5.82	0.057	0.811	0.658	3	7
OF.policy2	Library policy should comprise EBL activities	5.79	0.059	0.838	0.702	4	7
OF.policy3	EBL activities should be made clear and understandable in library policy	5.93	0.056	0.786	0.618	3	7
OF.policy4	Library policy relating to EBL activities should be aligned with university goals in supporting research activities	5.97	0.055	0.776	0.602	4	7
OF.training1	Offer EBL training for library staff	6.04	0.052	0.739	0.547	3	7
OF.training2	Offer EBL workshop for library staff	6.05	0.051	0.724	0.525	3	7
OF.training3	Offer EBL skill development program for library staff	6.04	0.053	0.753	0.567	4	7
OF.training4	Offer an on-going EBL mentoring program for library staff	5.97	0.056	0.792	0.628	3	7
OF.organizational support1	Financial support should be provided for EBL activities	6.01	0.060	0.848	0.718	4	7
OF.organizational support2	Top management encourage EBL activities in library	6.14	0.056	0.790	0.624	4	7
OF.organizational support3	Rewards will be given to those who are active in EBL activities	5.57	0.074	1.039	1.081	2	7
OF.supporting resources1	Library facilities are adequate for conducting EBL activities	5.52	0.069	0.982	0.964	2	7
OF.supporting resources2	Library resources are adequate for conducting EBL activities	5.64	0.068	0.963	0.926	2	7
OF.supporting resources4	Supporting software for electronic resources are available	5.85	0.066	0.932	0.868	2	7
OF.supporting resources5	Supporting software for data analysis are available	5.56	0.079	1.110	1.233	2	7
<b>Overall average</b>		<b>5.86</b>	<b>0.061</b>	<b>0.859</b>	<b>0.751</b>	<b>3</b>	<b>7</b>

1 = Strongly disagree, 2 = Disagree, 3 = Slightly disagree, 4 = Neither, 5 = Slightly agree, 6 = Agree, 7 = Strongly agree

### 5.3 Discussions

This findings shows that all respondents have proper educational background in librarianship. This is similar with Richer & Cahill (2014) where they found that most of the librarian have master degree with librarianship certification. Usually in Malaysia research courses have been taught since degree level while the advance methodology was taught in master level. But teaching and learning research in university and practising research in the field is different. The librarianship courses focussing on techniques of conducting research in the context of researcher, however in library setting librarians need to appraise and use research in the context of practitioner who engaged direct to EBL (Rubin, 2008). Rubin (2008) stated that librarianship student when they enter the industry they are so eager to be a service provider and have no interest to practice research until they forget what had been learn.

Consistent with Davies & Nutley (2002); Kitson, Harvey & McCormack (1998) explained that there are few reasons that permits evidence influence policy and practices, that are; the compliance on the nature of evidence, a strategic method to the formulation of evidence and the growth of knowledge foundation, disseminate knowledge efficiently with the development of effective means for accessing to information, strategy to increase the evidence used in policy and practices, and, complex procedure at the organizational level. Nutley et al. (2002) reported that policy and practice should informed by evidence. She added that four requirements are needed to in relation to policy and evidence use in organization, that are: agreement on what counts as evidence in what circumstances; a strategic approach to the creation of evidence in priority areas, with systematic efforts to accumulate robust bodies of knowledge; effective dissemination of evidence to where it is most needed, and the development of effective means of providing wide access to knowledge; and initiatives to ensure the integration of evidence into policy and encourage the utilisation of evidence in practice. While RyCroft-Malone (2004) stated the important to emphasis EBL development initiatives that likely appropriate to fit in organizational policy and mission. But there are also cases where existing policy restrict them to use EBL because librarians are force to focus to the job scope. At the same time they are facing heavy workload (Fisher & Robertson, 2007; Pretty, 2007; Astin, 2007; Kersten et al., 2008; Toma et al., 2010; Yew & Reid, 2008). So, if there are positive changes in policy, it can change the organization culture and constantly effect EBL practices.

Smith & Donze (2010) stated that organizational infrastructure that support EBL should had proper a policies, job specification, and performance assessments that highlight the significance of EBL. Kennedy & Brancolini (2012) & Fennewald (2008) found that librarian who had degree or master degree in librarianship was trained with related research courses, but when they serve in the industry they are not ready to conduct and write a real research investigation. Fennewald (2008); Kennedy & Brancolini (2012) also found that organizational support, proper research training, and confidence have potential to influence research activity. Koufogiannakis et. al. (2006) informed that librarian had poor quality reporting of published

evaluations of education and training interventions and a lack of skills in reading and interpreting such reports. So, management should provide related training so that they can develop specific skills as well as confidence to conduct evidence based activities (Houser, 2011). Related skills that requires management concerns were; hurdles when come across statistic article (Booth, 2009); limited skills to carry out research (Booth & Eldredge, 2010; Dalrymple, 2010) specifically in research design (Brice & Booth, 2005) and appraisal (McNicol, 2005); specific skills in EBL (McNicol, 2005; Booth & Brice, 2007) and critical evaluation (Booth & Brice, 2003; Brice & Booth, 2005; Cotter et al., 2006; Fisher & Robertson, 2007; Pretty, 2007); time management (Stern, 2008); critical thinking (Stern, 2008); evidence based decision making (Stern, 2008); statistics and data analysis (Todd, 2009); interest based problem solving (Stern, 2008); service quality improvement (Stern, 2008); communication skills (Stern, 2008); and teamwork (Stern, 2008).

Fearing et al. (2013) & Proctor (2007) found that leadership had possibility to moderate organizational climate and foster the usage of EBL. Torrey et al. (2011) stated that new innovation gained from research will leads to organizational change. Aarons & Sawitzky (2006) identified organizational culture and organizational climate influence practitioner's attitude towards EBL. Bonham et al. (2014) found link between financial resources and strong leadership which effected organizational capability to train EBL providers and implement it. They believed this component to ensure the success rate of implementation. Reichenpfader et al. (2015) stated that through management support, leadership always seen as a transformer to EBL success. Bonham et al. (2014) stated that it is difficult to carry out EBL when lack of workforce. They added that demoralization and turnover be a significant issue between both EBL providers and leadership because it obstruct the implementation process. Gavgani (2009) discovered that the majority of librarian facing deficient support from management and unskilled staff to conduct EBL, while half of them encounter time constrain and together with inadequate resources. She added that librarians had respectable knowledge on evidence sources but inexperienced review and appraise the best available evidence. Support from management is needed to encourage librarian to acquire knowledge and training on EBL.

Viglione, et. al (2017) believed that better infrastructure requires staff to pledge and devoted to organization mission and goals. But, librarians struggles to manage their time, besides facing incomplete infrastructure that hinder EBL employment in library (Booth, 2011; Howlett & Howard, 2015). This issue is consistent with Gray et. al. (2013), where they list out main resources obstacles relating to implementing EBL, which are; time constraint, restriction access to resources and limited funds to conduct EBL. He added that when the process of gaining evidence is problematic, there is potential to fail to acquire the best available evidence. Savicnac & Dunbar (2014) ascertain organizational capability to implement EBL including, space availability, recruitment and volunteer supports, training necessities, teaching and supervision, managerial support data systems and technology required, resources (e.g; financial); sustainability (e.g; organizational commitment and financial resources); as well as community buy-in (e.g; support of necessary partners).

## 6. Recommendations and future works

Based on the findings and discussion above, it is suggested that organization should emphasized on flexible policy that can diffuse EBL assessment in library practice and at the same time strengthening library infrastructure to support EBL implementation because the findings of the study shown moderate level of mean. A collaboration with National Library of Malaysia (PNM), International Medical University (IMU) and Hamdan Tahir Library (USM) is recommended to initiate evidence-based projects and create special interest group from EBL practitioners.

For future research, this study can be broadened to other types of library. It is recommended to carry out qualitative methodology to gain better understanding on Malaysian academic librarian attitude towards EBL.

## 7. Conclusion

This is a study about EBL practices among Malaysian librarian. This study exposed the association between organizational factors towards EBL practices among Malaysian librarian. At the moment, the state of EBL practices in Malaysian academic libraries is considerably behind from other library outside Malaysia (Hassan et. al. (2009). The overall organizational factor of Malaysian academic librarians' level of mean is moderate. This shows that librarian of Malaysian academic libraries are slightly agreed that their organization be likely to influence the adoption of EBL in their libraries. This indicate that the supports from organization is moderate. Thus, the outcome from this study can motivate organization to start develop interest in EBL and give encouragements to any evidence-based activity initiated by librarian. Therefore, EBL engagement among Malaysian academic librarian can be accelerated.

## References

Aarons, G. A. & Sawitzky, A. C. (2006). Organizational culture and climate and mental health provider attitudes toward evidence- based practice. *Psychological Services*, 3(1), 61–72.

Abd Manaf. Z., & Mohamad Bahtiar, I. N. (2015, November). Evidence-based Librarianship (EBL): A Historical Perspective. Paper presented at Seminar Kepustakawanan 2015, Sarawak, Malaysia.

Astin, J. (2007). Barriers to the integration of new evidence in medicine: The importance of context. *Arthritis and Rheumatism (Arthritis Care and Research)*, 57(7), 1116- 1118.

Austin, M. J., & Claassen, J. (2008). Impact of organizational change on organizational culture: Implications for introducing evidence-based practice. *Journal of Evidence-Based Social Work*, 5, 321-359.

Barría, R.M. (2014). Implementing evidence-based practice: A challenge for the nursing practice. *Invest Educ Enferm*. 32(2), 191-193.



Battilana, J., Gilmartin, M., Sengul, M., Pache, A. C. & Alexander, J. A. (2010). Leadership competencies for implementing planned organizational change. *Leadership Quarterly*, 21, 422-438.

Bexon, N, (2007). Is evidence based librarianship just an attractive theory, or can practicing librarians make it work in real life? Implementation of quality systems and certification of biomedical libraries Palermo. Paper presented at EAHILWorkshop Implementation of Quality Systems and Certification of Biomedical Libraries Palermo, Poland.

Booth, A. (2002). Evidence-based librarianship: One small step. *Health Information and Libraries Journal*, 19(2), 116-119.

Booth, A. (2011). Barriers and facilitators to evidence-based library and information practice: An international perspective. *Perspectives in International Librarianship*, 1, 1-15.

Booth, A. (2009). A bridge too far? Stepping stones for evidence based practice in an academic context. *New Review of Academic Librarianship*, 15(1), 3–34.

Booth, A. & Brice, A. (2007). Prediction is difficult, especially the future: A progress report. *Evidence Based Library and Information Practice*, 2(1), 89–106.

Booth, A. & Brice, A. (2003). Clear-cut?: Facilitating health librarians to use information research in practice. *Health Information and Libraries Journal*, 20(1), 45–52.

Booth, A. & Eldredge, J. (2010). A voyage of discovery: Identifying barriers to EBLIP in the Caribbean. *Evidence Based Library and Information Practice*, 5(3), 68-72.

Brice, A. & Booth, A. (2005, June). Fusion or confusion: Challenges in applying critical appraisal methods to the health library literature. Paper presented at EAHILWorkshop Implementation of Quality Systems and Certification of Biomedical Libraries Palermo, Poland.

Britt, E., Blampied, N. M., & Hudson, S. M. (2003). Motivational interviewing: A review. *Australian Psychologist*, 38(3), 193-201.

Bonham, C. A., Sommerfeld, D., Willging, C. & Aarons, G. A. (2014). Organizational Factors Influencing Implementation of Evidence-Based Practices for Integrated Treatment in Behavioural Health Agencies Caroline. *Psychiatry J.*, 2014, 1-19.

Boström A, Wallin L, Nordström G. (2006) Research use in the care of older people: a survey among healthcare staff. *International Journal of Older People Nursing*, 1, 131-140.

Clyde, L. A. (2006). The basis for evidence-based practice: Evaluating the research evidence. *New Library World*, 107(5/6), 180–192.

Cotter, L., Harije, L., Lewis, S., & Tonnison, I. (2006). Adding SPICE to a library intranet site: A recipe to enhance usability. *Evidence Based Library and Information Practice*, 1(1), 3-25.

Cotter, L. & Lewis, S. (2006). Libraries using evidence. *Evidence Based Library and Information Practice* 1(3): 98-100.

Crumley, E. & Koufogiannakis, D. (2002). Developing evidence based librarianship: Practical steps for implementation. *Health Information and Libraries Journal*, 19(2), 61–70.

Dalrymple, P. (2010). Applying evidence in practice: What we can learn from healthcare. *Evidence Based Library and Information Practice*, 5(1), 43-47.

Damschroder, L. J., Goodrich, D. E., Robinson, C. H., Fletcher, C. E. & Lowery, J. C. (2011). A systematic exploration of differences in contextual factors related to implementing the MOVE! Weight management program in VA: A mixed methods study. *BMC health services research*, 11, 248-6963-11-248

Davies, H. & Nutley, S. (2002). Evidence-based policy and practice: Moving from rhetoric to reality, Discussion Paper 2. Scotland: St Andrews University, Research Unit for Research Utilization. Retrieved from, [www.st-andrews.ac.uk/~ruru/RURU%20publications %20list.htm](http://www.st-andrews.ac.uk/~ruru/RURU%20publications%20list.htm)

Denti, L. & Hemlin, S. (2012). Leadership and Innovation in Organizations:: a Systematic Review of Factors that Mediate Or Moderate the Relationship. *International Journal of Innovation Management*, 16,1240007-1240001; 1240007-20.

Durlak, J. & DuPre, E. (2008). Implementation matters: A Review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology*, 41, 327–350.

Eldredge, J. D. (2002). Evidence based librarianship: An overview. *Bulletin of the Medical Library Association*, 88(4), 289-302.

Fearing, G., Barwick, M. & Kimber, M. (2013). Clinical transformation: Manager's perspectives on implementation of evidence-based practice. *Administration and Policy in Mental Health and Mental Health Services Research*, 1–14.

Fennewald, J. (2008). Research productivity among librarians: Factors leading to publications at Penn State. *College and Research Libraries*, 69, 104-116.

Fisher, B. & Robertson, D. (2007). Evidence-based management as a tool for special libraries. *Evidence Based Library and Information Practice*, 2(4), 36-45.

Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M. & Wallace, F. (2005). Implementation research: A Synthesis of the literature. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network.

Forsman, H., Rudman, A., Gustavsson, P., Ehrenberg, A. & Wallin, L. (2012). Nurses' research utilization two years after graduation--a national survey of associated individual, organizational, and educational factors. *Implementation science* : IS, 7, 46- 5908-7-46

Fuller, B. E., Rieckmann, T., & Nunes, E. V. (2007). Organizational readiness for change and opinions toward treatment innovations. *Journal of Substance Abuse Treatment*, 33(2), 183–192.

Gavgani, V. Z. (2009). The perception and practice of evidence based library and information practice among Iranian medical librarians. *Evidence Based Library and Information Practice*, 4:4, 37-57.

Gifford, W., Davies, B., Edwards, N., Griffin, P. & Lybanon, V. (2007). Managerial leadership for nurses' use of research evidence: An integrative review of the literature. *Worldviews on evidence-based nursing / Sigma Theta Tau International, Honor Society of Nursing*, 4, 126-145.

GILL, R. 2012. Theory and practice of leadership (2<sup>nd</sup> ed.). London: SAGE.

Glynn, L. (2006). A critical appraisal tool for library and information research. *Library Hi Tech* 24.3 (2006): 387-399.

Gray, M., Joy, E., Plath, D. & Webb, S. A. (2013). Implementing evidence based practice: A review of the empirical research literature. *Research on Social Work Practice*, 23(2), 157-166.

Grefsheim, S. F., Rankin, J.A., Perry, G. J. & McKibbin, K. A. (2008). Affirming our commitment to research: The medical library association's research policy statement: The process and findings. *Journal of the Medical Library Association*. 96(2), 114–120.

Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P. & Kyriakidou, O. (2004). Diffusion of innovations in service organizations: Systematic review and recommendations. *The Milbank Quarterly*, 82, 581-629

Hassan, N., Alli, W. E. W., & Chik, E. R. E. (2009, June). Practicing evidence base in Malaysian libraries: A CSI challenge? Paper presented at International Conference on Libraries, Pulau Pinang, Malaysia.

Harvey, G., Loftus-Hills, A., Rycroft-Malone, J., Titchen, A., Kitson, A., McCormack, B. & Seers, K. (2002). Getting evidence into practice: The role and function of facilitation. *Journal of Advanced Nursing*, 37, 577–588.

HELFRICH, C. D., WEINER, B. J., MCKINNEY, M. M. & MINASIAN, L. 2007. Determinants of implementation effectiveness: Adapting a framework for complex innovations. *Medical care research and review: MCRR*, 64, 279-303.

Hiller, S., Kyrillidou & Self, J. (2008). When the evidence is not enough: Organizational factors that influence effective and successful library assessment. *Performance Measurement and Metrics*, 9(3), 223-230.

Houser, J. (2011). Chapter 7: Determining Resources Available for EBP. In J. Houser & K. Oman (Eds.), *Evidence-based practice: An implementation guide for healthcare organizations*. Jones & Bartlett Learning: Colorado.

Howlett, A. & Howard, Z. (2015). Exploring the use of evidence in practice by Australian special librarians. *Information Research*, 20(1), 1-12.

Iivonen, M. & Namhila, E. N. (2012). Evidence-based librarianship as a method. In M. Iivonen, P. Helminen, J. Ndinoshiho, & O. Sisättö (Eds.), *Empowering people: collaboration between Finnish and Namibian university libraries* (pp. 57-75). Tampere: Tampere University Press.

IMU (2013). President's report 2013: 21 years of innovation and excellence. Retrieved from <http://imu.edu.my/imu/wp-content/uploads/president-report-2013.pdf>

Jensen, L. S. (2011). Perception of barriers to evidence based practice among critical care nurses (Master dissertation). Retrieved from <https://research.wsulibs.wsu.edu:8443/xmlui/handle/2376/3085?show=full>

Johnson, M. & Austin, M. J. (2005). Evidence-based practice in the social services: Implications for organizational change. *Journal of Evidence-based Social Work*, 5, 239-269.

Kennedy, M. R. & Brancolini, K. R. (2012). Academic librarian research: A survey of attitudes, involvement, and perceived capabilities. *College & Research Libraries*, 431-448.

Kersten, H., Thompson, E. D., & Frohna, J. G. (2008). The use of evidence-based medicine in pediatrics: Past, present and future. *Current Opinion in Pediatrics*, 20(3), 326-331.

Kitson, A., Harvey, G., & McCormack, B. (1998). Enabling the implementation of evidence based practice: A conceptual framework. *Quality in Health Care*, 7, 149- 158.

Koessler, B. D. (2009). Factors influencing rural nurses attitudes and beliefs towards evidenced based practice. Published thesis dissertation.

Koufogiannakis, D. (2013). How academic librarians use evidence in their decision making: Reconsidering the evidence based practice model. Published thesis and dissertation.

Koufogiannakis, D. & Crumley, E. (2006). Research in librarianship: Issues to consider. *Library Hi Tech.*, 24(3), pp. 324-340.

Koufogiannakis, D., Booth, A., & Brett, A. (2006). ReLIANT: Reader's guide to the literature on interventions addressing the need for education and training. *Library and Information Research*, 30(94), 44-51.

Krejcie, R.V., & Morgan, D.W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.

Leach, M. 2006. Evidence-based practice: A framework for clinical practice and research design. *International Journal of Nursing Practice*, 12(5):248-251.

Leeman, J., Baernholdt, M. & Sandelowski, M. (2007). Developing a theory-based taxonomy of methods for implementing change in practice. *Journal of Advanced Nursing*, 58, 191- 200.

Lerdal, S. N. (2006). Evidence-based librarianship: Opportunity for law librarians? *Law Library Journal*, 98(2), 33–60.

McCormack, B., Kitson, A., Harvey, G., Rycroft-Malone, J., Seers, K. & Titchen, A. (2002). Getting evidence into practice: The meaning of 'context'. *Journal of Advanced Nursing*, 38, 94–104.

McNicol, S. (2005). The importance of evaluation and evidence-based skills to improving service delivery. *Library & Information Research (LIR)*, 29(93), 26–34.

Nagy, S. Lumby, J., McKinley, S. and Macfarlane, C. 2001. Nurses' beliefs about the conditions that hinder or support evidence-based nursing. *International Journal of Nursing Practice*, 7(5):314-321.

Nai, M. L., Cheong, L. T. & Ming, L. L. (2010). The place and barriers of evidence based practice: knowledge and perceptions of medical, nursing and allied health practitioners in Malaysia. *BMC Research Notes*, 3:279, 1-8.

Newton, J., Graham, J., Mcloughlin, K. & Moore, A. (2003). Receptivity to change in a general medical practice. *British Journal of Management*, 14, 143-153.

Nutley, S., Davies, & Walter, I. (2002). Evidence based policy and practice: Cross sector lessons from the UK. *ESRC UK Centre for Evidence Based Policy and Practice: Working Paper 9*, 1-23.

Ogbonna, E. (2000). Leadership style, organizational culture and performance: Empirical evidence from UK companies. *The international journal of human resource management*, 11, 766-788.

Oh, E.G. (2008). Research activities and perceptions of barriers to research utilization among critical care nurses in Korea. *Intensive & Critical Care Nursing*, 24(5), 314-322.

Olade, R. 2004. Evidence-based practice and research utilization activities among rural nurses. *Journal of Nursing Scholarship*, 36(3): 220-225.

Pretty, H. J. (2007). Barriers to evidence-based library and information practice. *Felicitier*, 53(1), 30-32.

Proctor, E. K., Knudsen, K. J., Fedoravicius, N., Hovmand, P., Rosen, A., & Perron, B. (2007). Implementation of evidence-based practice in community behavioural health: Agency director perspectives. *Administration and Policy in Mental Health and Mental Health Services Research*, 34(5), 479-488.

Rabiu, A. M. (2016). Librarian's perception of evidence based library and information practice (EBLIP) and information society as vital tool for National development. *Journal of Applied Information Science and Technology*, 9(1), 63-72.

Reichenpfader, U., Carlkjord, S., & Nilsen, P. (2015). Leadership in evidence-based practice: a systematic review. *Leadership in Health Services*, 28(4), 1-19.

Richey, J. & Cahill, M. (2014). School librarians' experiences with evidence-based library and information practice. *School Library Research: Research Journal of the American Association of School Librarians*, 17, 1-25.

Rosenheck, R. A. (2001). Organizational process: A missing link between research and practice. *Psychiatric Services*, 52(12), 1607-1612.

Russell, K. (2008). Evidence-based practice and organizational development in libraries. *Library Trends*, 56(4), 910-930.

Rycroft-Malone, J., Harvey, G., Seers, K., Kitson, A., McCormack, B., & Titchen, A. (2004). An exploration of the factors that influence the implementation of evidence into practice. *Journal of Clinical Nursing*, 13(8), pp. 913-924.



Saenwa, S., Butdisuwan, S, Bunyakanchana, C, & Srisa-Ard, S. (2009, October). Features and development factors of the academic library as a quality organization. Paper presented at International Conference on Academic Libraries (ICAL-2009), Delhi, India.

M. R. Sanders, M. R., Prinz, R. J. & Shapiro, C. J. (2009). Predicting utilization of evidence-based parenting interventions with organizational, service-provider and client variables. *Administration and Policy in Mental Health and Mental Health Services Research*, 36(2), 133–143.

Sandstrom, B., Borglin, G., Nilsson, R. & Willman, A. (2011). Promoting the implementation of evidence-based practice: a literature review focusing on the role of nursing leadership. *Worldviews on evidence-based nursing / Sigma Theta Tau International, Honor Society of Nursing*, 8, 212-223.

Santra, N. (2007). Academic medical librarians in Malaysia: What roles do they play? *Malaysian Journal of Library & Information Science*, 12(1), 83-96.

Savignac, J. & Dunbar, L. (2014). Guide on the implementation of evidence-based programs: What do we know so far? Public Safety Canada: Canada.

Sheldon, B., & Chilvers, R. (2000). Evidence-based social care: A study of prospects and problems. Lyme Regis: Russell House Publishing.

Smith, J. R., & Donze, A. (2010). Assessing environmental readiness: First steps in developing an evidence-based practice implementation culture. *J Perinat Neonatal Nurs* 24(1), 61–71.

Stetler, C. B., Damschroder, L. J., Helfrich, C. D. & Hagedorn, H. J. (2011). A Guide for applying a revised version of the PARIHS framework for implementation. *Implementation science : IS*, 6, 99-5908-6-99.

Taylor, S. L., Dy, S., Foy, R., Hempel, S., McDonald, K. M., Ovretveit, J., Pronovost, P. J., Rubenstein, L. V., Wachter, R. M. & Shekelle, P. G. (2011). What context features might be important determinants of the effectiveness of patient safety practice interventions? *BMJ quality & safety*, 20, 611-617.

Todd, R. (2008). The evidence-based manifesto for school librarians. *School Library Journal*, 54(4), 38–43.

Todd, R. J. (2009). School librarianship and evidence based practice: Progress, perspectives, and challenges. *Evidence Based Library and Information Practice*, 4(2), 78-96.

Toma, A., Bensimon, C., Dainty, K., Rubenfeld, G., Morrison, L., & Brooks, S. (2010). Perceived barriers to therapeutic hypothermia for patients resuscitated from cardiac arrest: A qualitative study of emergency department and critical care workers. *Critical Care Medicine*, 38(2), 504-509.

Torrey, W. C., Tepper, M. & Greenwold, J. (2011). Implementing integrated services for adults with co-occurring substance use disorders and psychiatric illnesses: A research review. *Journal of Dual Diagnosis*, 7(3), 150–161.

Turner, K. J. (2002a). The use of applied library and information studies (LIS) research in New Zealand libraries. *Library Review*, 51(5), 230–240.

Turner, K. J. (2002b). Do information professionals use research published in LIS journals? Proceedings of the 68th IFLA Council and General Conference, August 18–24, 2002, Glasgow.

Varnell, G., Haas, B., Duke, G., & Hudson, K. (2008). Effect of an educational intervention on attitudes toward and implementation of evidence-based practice. *Worldviews on Evidence-Based Nursing*, 5(4), 172–181.

Viglione, J., Blasko, B. L., & Taxman, F. S. (2017). Organizational Factors and Probation Officer Use of Evidence-Based Practices: A Multilevel Examination. *International Journal of Offender Therapy and Comparative Criminology*, 1 –20.

Wilson, V. (2011). An international association of EBLIP, Redux. *Evidence based Library and Information Practice*, 6.4, 28-29.

Yew, K., & Reid, A. (2008). Teaching evidence-based medicine skills. *Family Medicine*, 40(1), 24-31.

Yukl, G. A. 2006. Leadership in organizations (6th Ed.), Upper Saddle River, NJ, Pearson/Prentice Hall.