

# Knowledge Management Adoption and Implementation Readiness: A Case Study of the National Library of Malaysia

**Suraya Hamid, Jamaliah Mohammad Nayan,  
Zaitun Abu Bakar and Azah Anir Norman**

Faculty of Computer Science and Information Technology,  
University of Malaya, Kuala Lumpur

E-mail: suraya\_hamid@um.edu.my, jamona@perdana.um.edu.my,  
zab@um.edu.my, azahnorman@um.edu.my,

## Abstract

*Knowledge Management (KM) refers to a range of practices used by organizations to identify, create, represent and distribute knowledge for reuse, awareness, and learning across organizations. Libraries have always been regarded as a reader's haven. With the proven advantages of KM, libraries are able to use this technology to improve their services and become learning organizations. KM can be used to assist librarians in changing their role to be knowledge managers. They need to constantly update or acquire new skills and knowledge to remain relevant to contemporary library environment. Libraries need to restructure their functions, expand their roles and responsibilities to effectively contribute and meet the needs of a large and diverse community and users. In this paper, we present the outcome of a survey on the perception and understanding of various aspects of KM by the librarians and staff of the National Library of Malaysia (NLM). The study investigates the current status of KM in NLM. The main objective of the survey is to discover how the organization goes about creating, disseminating and applying knowledge internally. It also tries to assess whether the working environment in the NLM supports the adoption and implementation of KM. The result of this effort can be used by other libraries and similar organizations which are considering adopting and implementing KM.*

**Keywords:** Library; Knowledge; Knowledge Management; National Library of Malaysia

## 1. Introduction

Though not many libraries undertake KM to improve its services, the keen interest of the International Federation of Library Associations (IFLA) community in KM over the past few years has led to the transformation of the KM Discussion Group into a full-fledged IFLA Section. Established in December 2003, the new KM section is situated within Division IV (Bibliographic Control). Since its inception in 2001, the activities of the Knowledge Management Discussion Group received considerable attention among conference delegates. Information professionals from all parts of the world participate in the KM meetings, expressing their interest in learning more about this important development in organizational management. Library and information science (LIS) professionals have shown great interest in the implementation of KM in libraries as well as in the information environment and expressed a need for a deeper understanding of its many dimensions and relevance to their work (Wormell, 2004).

The objective of KM in libraries is firstly, to promote knowledge innovation. As bases for collection, processing, storage and distribution of knowledge and information, libraries represent an indispensable link in the scientific system chain, an important link in knowledge innovation. Secondly, libraries take part in the scientific research process directly. The library's work is a component of knowledge innovation. Thirdly, libraries must pay close attention to diffusion and conversion of knowledge. They act as bridges for turning the results of knowledge innovation into realistic productive forces. KM in libraries promotes relationship in and between libraries, between library and user, strengthens knowledge internetworking and quickens knowledge flow. In the era of



knowledge economy, libraries will carry out researches on development and application of information resources, construction of virtual libraries, protection of intellectual property rights in the electronic age and many others, thus forming the base for knowledge innovation (Cao, 1999).

KM in libraries has not been extensively studied but a significant body of literature which deals with knowledge management in the business environment, has been helpful in framing this study. This research explored contemporary issues associated with implementing a KM framework in a library environment. The study presented in this paper is part of a larger research project aimed at investigating the perception and understanding of various aspects of KM by respondents in a library. In order to obtain a comprehensive and in-depth data on how librarians and their staff manage knowledge in their organization, the National Library of Malaysia (NLM) is the case study. This study should be able to provide the NLM with some indications on the working environment of its staff as to whether they will support the application of KM in the organization. It will produce useful data for other libraries in Malaysia to perceive and be aware of the constraints and benefits if they were to manage knowledge in their organization.

## **2. The National Library of Malaysia (NLM)**

In 1966, the NLM was first established as a unit within the National Archives with the modest primary functions of implementing the Preservation of Books Act 1966 and the publication of the *Malaysian National Bibliography*. It then functions as a department after the establishment of the National Library Act 1972. A series of catalytic events in the following years accelerated the growth of the National Library. The Preservation of Books Act 1966 was repealed and replaced by a much more effective Deposit of Library Material Act 1986 which requires all publishers in Malaysia to deposit 5 copies of printed material with the National Library. This ensures that published materials are recorded and made available for now and in the future. Today, the NLM is a department under the Ministry of Education. It is responsible for the building and maintenance of the national collection from various library resources, providing facilities for their use as well as providing leadership in library matters. The National Library also plays an important role in the planning and development of the library infrastructure throughout the country. This role is in line with the aspirations of the government to inculcate a culture of knowledge in the development of the country and to foster a reading culture among Malaysians.

## **3. The Survey and its Finding**

The purpose of this research is to assess the organizational working culture that would supplement the implementation of knowledge management in the NLM. Organizational culture and attributes were assessed through the three main perspectives of successful knowledge sharing culture: the corporate, operational and individual perspectives based on the questionnaires listed by Kermally (2001). These three perspectives were then broken down into five main groupings: understanding of knowledge management concepts, the organizational culture, the knowledge-sharing climate, system used and practices in the organization and respondents' perceptions on knowledge management initiatives. Depending on the organization's degree of integration of these factors, it is expected that specific KM initiatives, if implemented, will be more likely to succeed in the organization.

The SPSS (*Statistical Package for Social Science*) and Microsoft Excel software were used as the main statistical analysis tools. All usable responses data were analyzed using these two tools. Various analyses authenticated the instrument's reliability and validity,



and produced a descriptive analysis of the respondents' demographics and their organizations' profiles.

Statistics from the Management Services and Human Resources Division listed the total workforce of the organization as 466 (as at 1 January 2005). Based on the number of the total workforce, therefore, 250 questionnaires were printed and distributed randomly to the whole population to obtain a good sampling size. However, only 200 copies of the printed questionnaires were distributed by hand. Of these, 145 copies of the questionnaires were completed and returned, giving an overall response rate of:

$$\begin{array}{ll}
 N = \text{Population} & N = 466 \\
 n = \text{Sample size} & n = 145 \\
 \text{Therefore, } n/N & = 145/466=31.0\%
 \end{array}$$

**(a) Level of Understanding of KM among the Staff of NLM**

The data gathered showed that KM is already a well-known buzz word to most of the staff of the organization. About 86.2% of the respondents indicated that they have heard about it either through reading (52.4%), training (57.9%) or even through discussions (43.4%) with their fellow colleagues. Only 1 (0.7%) respondent mentioned that he/she has had formal education on KM while attending the Degree or Master education in the university. The remaining 13.8% respondents who do not know about KM are those categorized as the supporting staff where 12 (8.4%) were from grade S17 – S22 (Library Assistants) and 5 (3.5%) from the clerical staff. Reasons for not knowing about KM is probably due to the fact that training on KM at that time was only given to the professional staff. KM was placed as one of the topic in the Evaluation Competency Level Examination (PTK3 examination), where these staff were moving from grade S44 to a higher post (grade S48 and above). Observations from the NLM official Home Page accessed at [www.pnm.my](http://www.pnm.my) confirmed that KM is one of the subject listed for training in 2005. The targeted groups for training on KM in 2005 are the professionals and semi-professionals. Other supporting staff probably will have their training on KM when the organization completed the training scheduled for those groups already targeted for the year 2005.

Although the data gathered showed that there were a few respondents that were still unfamiliar with the concept of KM, the importance of knowledge has definitely been communicated to the staff in the organization as indicated by 133 (91.7%) respondents in Table 1. This is further justified by the fact that there were already KM programs, which were practiced in some of the divisions, which includes programs like TQM (Total Quality Management), KMK or QCC (Quality Control Circle), ISO 9000 and On Job Trainings and Practices.

Table 1: The Importance of Knowledge is being Communicated (n = 145)

Job title	Importance of Knowledge		Total
	Yes	No	
Director	5	0	5
Deputy Director	4	0	4
Assistant Director	39	2	41
Assistant Library Officer	22	2	24
Library Assistant	48	3	51
Others	15	5	20
<b>Total</b>	<b>133</b>	<b>12</b>	<b>145</b>



### **(b) Working Environment Support the Implementation of KM**

Effective KM requires a 'knowledge sharing' culture to be successful. Organizational culture is a set of values, beliefs, assumptions and attitudes that are deeply held by the people in an organization. They influence the decisions people make and the ways in which they behave. In organizations that recognize only individual achievement, people are rewarded for their personal knowledge and have no incentive to share it. In a knowledge sharing culture, people not only can be rewarded for individual achievements, but are also recognized and rewarded for their knowledge sharing and contributions to team efforts. The National Electronic Library for Health, a specialist library in knowledge management in their homepage, which is available at [www.nelh.nhs.uk](http://www.nelh.nhs.uk), listed some of the key characteristics of a knowledge sharing culture:

- top leadership sees knowledge as a strategic asset and provides incentives and support for knowledge management processes;
- the organization focuses on the development and exploitation of its knowledge assets;
- tools and processes for managing knowledge are clearly defined;
- knowledge creation, sharing and use are a natural and recognized part of the organization's processes, not separate from normal work processes;
- groups within the organization cooperate instead of compete with each other;
- knowledge is made accessible to everyone who can contribute to it or use it;
- rewards and performance evaluations specifically recognize contributions to, and use of, the organization's knowledge base; communication channels and a common technology infrastructure that enables and enhance knowledge management.

Although there is no prescription for an ideal culture that can fit all organizations, there are certain values that must be honored in a culture if its members are going to feel free and motivated to share what they know and to collaborate around their shared knowledge (Figallo and Rhine, 2002). The above listed characteristics were then compared to findings of the study.

#### **i. Top Leadership Support for Knowledge Management**

The management of the NLM has accepted knowledge as a strategic asset. This is even stipulated in the NLM's organizational philosophy: *"To develop culturally advanced individuals with a love for knowledge acquired through lifetime reading in order to nurture the minds of Malaysians towards excellent; thereby bringing about innovations that can enhance the tradition of knowledge in the country."*

To rationalize further, Table 2 shows that all respondents representing the managerial level (the Directors, Deputy Directors and Assistant Directors) were among those who 'strongly agreed' that National Library should define and document the organization's policy for knowledge management making it known to all staff or personnel. Given the support and blessings from the managerial level, if implemented, KM programs will certainly produce meaningful results.

#### **ii. Accessible Knowledge in the Organization**

Respondents were asked about how they shared knowledge or information on what is going on with each other in their respective divisions. Their responses are summarized in Table 3 and it shows that 129 (89.0%) of the respondents said that they shared knowledge or information on what is going on with each other in their respective divisions. At least two Activities/Divisions have all the respondents 'agreeing' to the statements. They were the Management Service and Human Resources Division and the Knowledge and Information Infrastructure Activities. This good practice was also performed by other divisions namely the General Services Division that is, 'agreed' by 94.7% of its respondents and National Collection Development and Documentation Center with a total score of 92.3% agreement



Table 2: Defining National Library KM Policy (n=145)

Job Title	Count within job title	NLM Should Define KM Policy				Total
		Strongly disagree	Neutral	Agree	Strongly Agree	
Director	Count	0	0	2	3	5
	% within Job Title	.0%	.0%	40.0%	60.0%	100%
Deputy Director	Count	0	0	1	3	4
	% within Job Title	.0%	.0%	25.0%	75.0%	100%
Assistant Director	Count	0	0	19	22	41
	% within Job Title	.0%	.0%	46.3%	53.7%	100%
Assistant Library Officer	Count	1	0	9	14	24
	% within Job Title	4.2%	.0%	37.5%	58.3%	100%
Library Assistant	Count	0	7	29	15	51
	% within Job Title	.0%	13.7%	56.9%	29.4%	100%
Others	Count	0	1	16	3	20
	% within Job Title	.0%	5.0%	80.0%	15.0%	100%
<b>Total</b>	<b>Count</b>	<b>1</b>	<b>8</b>	<b>76</b>	<b>60</b>	<b>145</b>
	<b>% within Job Title</b>	<b>.7%</b>	<b>5.5%</b>	<b>52.4%</b>	<b>41.4%</b>	<b>100%</b>

Table 3: Knowledge Sharing Practices in the Divisions (n = 145)

Division	Count within division	Sharing knowledge		Total
		Yes	No	
Management Services and Human Resource	Count	5	0	5
	% within Division	100.0%	.0%	100.0%
Human Resource Development	Count	6	1	7
	% within Division	85.7%	14.3%	100.0%
Information Technology	Count	11	1	12
	% within Division	91.7%	8.3%	100.0%
Planning and Corporate Communication	Count	3	4	7
	% within Division	42.9%	57.1%	100.0%
Knowledge and Information Infrastructure	Count	4	0	4
	% within Division	100.0%	.0%	100.0%
National Collection Development and Documentation	Count	36	3	39
	% within Division	92.3%	7.7%	100.0%
Malaysiana Services	Count	27	6	33
	% within Division	81.8%	18.2%	100.0%
General Services	Count	37	1	38
	% within Division	97.4%	2.6%	100.0%
<b>Total</b>	<b>Count</b>	<b>129</b>	<b>16</b>	<b>145</b>
	<b>% within Division</b>	<b>89.0%</b>	<b>11.0%</b>	<b>100.0%</b>



### iii. Use of Communication Channels

Communication channels are the medium through which organization members interact and share knowledge among themselves. Different channels of communication are available in the organization and include conventional as well as technology-enabled ones. The appropriateness and effectiveness of a channel to convey a message are related to its media richness. Though types of communication channels is not being imposed in the survey questionnaire, it is however noted that the organization has a good communication system, which is either 'agree' or 'strongly agree' by 113 (78%) respondents. Observations however revealed that some of the common communication channels in the organization include face-to-face conversation (inclusive of meetings, talk, and gathering), written-documents (such as memos, procedures and manuals), telephone, electronic mail, bulletin board, electronic and discussion forum.

### iv. A Common Technology Infrastructure

Through observations, it was found that the organization is well hooked up through a local area network (LAN). It functions on the Oracle environment that facilitates the processes of managing knowledge and enhances the ability of the staff to communicate with each another. As far as technology is concerned, the organization will not face any difficulties because they have the required technology to manage the organizational knowledge. Interviews with the IT personnel confirmed that they were promoting the use of Intranet in the organization to further enhance the capability of communication and networking amongst staff. They have also presented and published the *Information and Communication Technology Strategic Plan (ISP)* for the organization in which the strategic plan for ICT development and KM were proposed as one of the strategic applications.

### v. Group Corporation

Teams or group work accomplishes most of the important work in organizations. Strong relationship usually develop in project teams or groups assigned with an organizational task. These relationships are easy to over look, yet they are part of the crucial component of knowledge sharing in the organization. While working in teams, a staff has the opportunity to learn precisely how the knowledge of colleagues can help solve a problem. Through observations and interviews, it was found that most of the processes and work in the organization require inputs from more than one individual and in order to perform to the best of their ability, these individuals need to work as a team or group. This statement is 'agreed' or 'strongly agreed' by 117 (80.7%) respondents (Table 4).

Table 4: Response to Working in Team (n=145)

N=145	Disagree	Neutral	Agree	Strongly Agree
Working in team	4(2.76%)	24(16.55%)	91(62.76%)	26(17.93%)
Clear and specific objective of the organization	4.1%	17.96%	68.3%	9.7%
Response to the practice of recording their experience	10(6.9%)	30(20.69%)	94(64.83%)	10(6.9%)

The following data further proves that there is a knowledge-friendly culture in NLM that is essential for future KM initiatives:

- Figure 1 (data derived from Table 4) shows that out of 145 respondents, 113 (78%) of the respondents acknowledged NLM as an organization that has a clear and specific objective. Slightly more than a quarter (17.9% respondents) is neutral and the remaining disagreed that NLM has clear and specific objectives.
- The existence of a shared written mission statement which were 'agreed' by 129 (89%) respondents and out of that 122 (84%) respondents further 'agreed' that most employees know and are aware of their organization's mission statement.



The communicated mission statement helps create the organization's knowledge friendly culture because it could guide the action carried out by the staff

- There is a sense of loyalty and belonging to the organization because most of the sampled staff (131 respondents = 89.5%) are proud to be associated with the organization. Furthermore, they also have confidence in their superior and the management as indicated by 124 (85.5%) respondents.

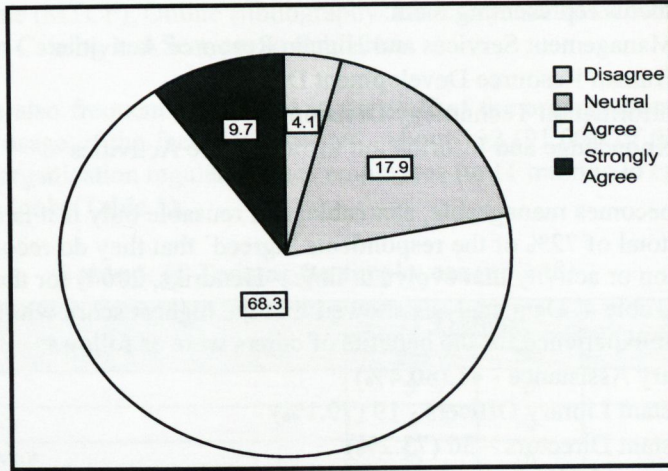


Figure 1: Clear and Specific Objective of the Organization

Organizational culture is particularly important in KM because it gives people a basis for stability, control and direction as well as help them to adapt and integrate other variables and technology with the operating environmental factors. With the findings listed above there is no doubt that the working environment will support the implementation of KM.

**(b) The Existence of Knowledge Sharing Practices in NLM**

Knowledge sharing emphasizes the concept of knowledge-in-motion. Effective KM requires a constant flow of knowledge, rather than a stock of it. Flows are what facilitate the connections between seekers of specific knowledge and the providers of needed knowledge (Holtshouse, 1998). Knowledge flow is the way knowledge travels and grows within an organization. It is more about the human elements than the technology that supports it. Similarly, knowledge flow also requires a working environment that nurtures and accelerates the sharing of knowledge.

To answer the research question as to whether knowledge sharing occurs in NLM, there is therefore a need to identify elements of knowledge sharing and arrange them in the light of culture. Knowledge sharing is an important mechanism that will turn individual knowledge into a group's organizational knowledge. Three aspects of knowledge sharing can be distinguished. Firstly, knowledge sharing is a process, and therefore involves a sequence of events, actions and activities, that evolve with time. Secondly, knowledge sharing asks for at least two parties or roles, played by individuals or groups: the role of bringing (offering, showing, teaching and others.) and the role of getting (acquiring, learning and others) knowledge. Thirdly, knowledge sharing is typified by the characteristics of knowledge that is shared (Hendriks, 2004) and the findings below are noted:

- There is an 'open market' for ideas in the organization when more than half of the surveyed respondents (118 - 81.4%) stated that they can suggest new things or ideas while working. This is referred to the act of 'offering of ideas' and is a suitable atmosphere for knowledge innovation and sharing in the organization. To further justify it a total of 108 (74.5%) 'agreed' and 'strongly agreed' that the people in the



organization can even accept new ideas suggested or proposed to them ('acquiring' and 'learning' – Hendriks, 2004)).

- ii. People in the organization normally give a helping hand to their colleagues. Helping hand is also an 'offering' which could speed up productivity and provide a learning by doing situation. A total of 129 (90%) respondents admitted in the survey that they helped each other as and when necessary within their departments. At least four Activities/ Divisions attained total agreement (100%) from all the respondents representing them:
  - Management Services and Human Resource Activities
  - Human Resource Development Division
  - Information Technology Division
  - Knowledge and Information Infrastructure Activities

Knowledge becomes manageable, shareable, and reusable only if it is recorded and made available. A total of 72% of the respondents 'agreed' that they do record their experience (through action or activity that evolve in time – Hendriks, 2004) for the benefits of others as shown in Table 4. Data analysis showed that the highest score within the job title who recorded their experience for the benefits of others were as follows:

- Library Assistance - 41 (80.4%)
- Assistant Library Officers - 19 (79.1%)
- Assistant Directors – 30 (73.2%)
- Others – 12 (60%)

Most probably there are other knowledge sharing activities that exist in the organization that the survey failed to capture but all the given data show that a knowledge sharing climate certainly exists in the organization since the workers were encouraged and able to perform the good-practices mentioned above.

### **(c) Systems Used to Capture Knowledge Created at NLM**

Information Technology (IT) can support the process for knowledge creation, sharing, application and storage (Alavi and Leidner, 2001). It can also enhance the interaction of individual, group, organizational, and inter-organizational knowledge (Nonaka and Takeuchi, 1995). Information technology availability and use varies even within countries and between organizations. Funding plays an important role in the use of IT in an organization, which means that if the organization has a big fund for IT applications, they will therefore acquire the required amount of computers and software applications for use, with required access time to the Internet and other IT services.

KM processes can be supported by many technologies. However, these technologies require a basic IT infrastructure, such as local area networking and Internet connectivity, to function optimally. There is also a need for basic hardware and software. Through observations, it was found that the organization is all hooked up through a local area network (LAN). It is also functioning on the Oracle environment which has the capability to handle large amount of data and can be configured to operate in a multitude of platforms as well as operating systems. Both technologies that exist in the organization could help to facilitate the processes of managing knowledge within the organization and enhance the ability of the staff to communicate with each another.

The Internet was marked as the most used system in the organization for knowledge sharing purposes. Out of 145 respondents surveyed, 143 (98.6%) stated that they use the Internet to retrieve and transfer information. The second most preferred database in the organization is the OPAC (Online Public Access Catalog) where 119 (82.1%) respondents use it as a means of retrieving information probably while satisfying their user's request for information. E-mail, which is an accepted KM enabler, is also frequently used by 71



(48.9%) respondents as a means of transferring information. However there is a need to promote the use of e-mail in the organization since its usage is rather low compared to the usage of other IT facilities. Other databases that were found to be present in the organization include the Intranet, Reading Promotion, Mylib Web Portal, Services Database, and E –Library User Education, Corporate Information and I – Komuniti Database. Other facilities were listed too but were less popular among and this includes the National Digital Library System or PERDANA, Malaysian Technical Cooperation Library Programme (MTCP), Online Bibliography/ Directory, Statistics databases, Virtual Exhibition, Union Catalog and Services to Publishers.

IT trainings were also frequently provided to the staff of the organization to familiarize and promote the usage of the facilities provided. About 132 (91.0%) of the respondents 'agreed' that the organization regularly sends employees for IT training to enhance the use of the knowledge tools (Table 5).

Table 5: IT Training for Employees (n= 145)

Job title	IT Training		Total
	Yes	No	
Director	5	0	5
Deputy Director	4	0	4
Assistant Director	35	6	41
Assistant Library Officer	23	1	24
Library Assistant	46	5	51
Others	19	1	20
<b>Total</b>	<b>132</b>	<b>13</b>	<b>145</b>

Browsing through the list of Training Programme, via the National Library homepage, there are about 9 courses/workshops which deal with IT in 2005, scheduled for the staff and this includes Workshop on MS-PowerPoint XP, Metadata, MS-Word XP, Web Design and Development, Adobe Acrobat 6 Professional and Acrobat Reader, Digitization, WINISIS/ Template CUTe, Digital Library Planning and Multimedia Digital Animation: Macromedia Flash MX. These courses and workshops are definitely related to the type of systems used in NLM to capture the knowledge created.

#### 4. Recommendation

Through the findings discussed in earlier section, NLM has clearly demonstrated their commitment in the adoption of KM. NLM has managed to identify, create, represent and distribute knowledge for reuse, create awareness, and learning across organizations. With the adoption of KM in NLM, the dissemination of information will be a vital activity to complete the whole cycle of KM. The importance of knowledge dissemination forces technology and people to interoperate, making the whole adoption complex and prone to danger especially if the information shared is sensitive to NLM and its users. NLM's adoption to exercise policy compliance procedure of information dissemination activity in NLM is highly recommended to ensure safety, security and authenticity of information shared in NLM. The Information Security Management Services or also known as ISO27001 is the best standard to adopt and deploy secure KM activity not only exclusively for information dissemination, but the standard encompasses guidelines to secure the whole KM processes.



## 5. Conclusion

This study has revealed that there is no doubt about the important role of the KM initiative in supporting the work of knowledge intensive organization like the libraries. However, there are many KM issues that have to be carefully examined before embarking on any KM approaches. Addressing KM determinants such as clear organizational strategy and the right understanding of KM potentials and challenges could be described as the basic formula for success. The survey conducted at the National Library of Malaysia revealed that the organization has all the required KM tools and enablers in place. However, before the organizations embarks on the program, it is wise to note that enhancing the organizational working culture would definitely lead to more successful KM practices in the organization. The organization should realize that the library systems and the building acquired are only the technology and infrastructure that could help in the process of managing knowledge in the organization. Whilst, the biggest component of the intangible asset is still floating around in the organization, residing in the head of the staff and librarians that necessitate the organization to capture, codify and manage it for future use as to remain sustainable in this millennium.

Analysis of the survey findings above indicated that the NLM has the required working environment, which contributed to the successful implementation of KM in the organization. To achieve the above intention the organization is anticipated to:

- i. come up with a system whereby persons with specific knowledge and expertise can be located easily,
- ii. document the best practices and expertise it requires, to successfully conduct its services, and
- iii. define and document the organization's policy for KM, thus making it known to all staffs or personnel.

## Acknowledgement

The authors would like to acknowledge the kind assistance and support from the staff and the management of the National Library of Malaysia who have participated in the survey and made the research possible.

## References

- Alavi, M. and D. Leidner. 2001. Knowledge management and knowledge management systems: Conceptual foundation and Research Issues. *MIS Quarterly*, Vol. 25, no. 1 : 107-136.
- Cao, Yi. 1999. The reorientation of libraries in the Knowledge Economy Era. *Library Work & Research*, 1999 (3): 24-26
- Hendriks, Paul H.J. 2004. *Assessing the role of culture in knowledge sharing*. Available at [www.ofhenhandwerk.com/oklc/pdf/pdf\\_file/D-3\\_hendrik.pdf](http://www.ofhenhandwerk.com/oklc/pdf/pdf_file/D-3_hendrik.pdf).
- Holtshouse, D. 1998. Knowledge Research Issues. *California Management Review*. Vol. 40, no. 3: 227-280.
- Kermally, Sultan. 2002. *Effective knowledge management: a best practice blueprint*. New York: John Wiley.
- Nonaka, Ikujiro and Hirotaka Takeuchi. 1995. *The knowledge – creating company: How Japanese companies create the dynamics of innovations*. New York: Oxford University Press.
- Perpustakaan Negara Malaysia, 2007. Available at <http://www.pnm.my/>
- Suraya Hamid and Jamaliah Mohd Nayan. 2005. *Preliminary Study of Knowledge Management in a Library: A Case Study of the National Library of Malaysia*, International Conference on Libraries (ICOL) 2005.
- Wormell, Irene. (2004). Social Science Libraries Section: aids in creation of new Knowledge Management Section. *IFLA Newsletter*. 2004:1