# **Knowledge Sharing Requirements for Single Mother**

Sharifah Rabeah Syed Taha, Azizah Abdul Rahman, Wardah Zainal Abidin

Department of Information Systems, Faculty of Computer Science and Information Systems, Universiti Teknologi Malaysia, 81310 Skudai Johor, MALAYSIA sharifahrabeah@gmail.com {azizahar, wardah}@utm.my

# ABSTRACT

The purpose of this paper is to identify knowledge requirements by single mothers in Malaysia through the knowledge sharing concept. In addition, it also seeks to identify specific knowledge requirements based on content required and knowledge sharing tools preferred for single mother's community. The content is divided into two categories which is knowledge and services. Based on analysis of 50 respondents collected from single mothers in Malaysia, it was shown that, knowledge that single mothers required are entrepreneurship and their rights as single mothers. Meanwhile as for the services, they require online counseling so that they can interact with the counselor and share their problems. Knowledge sharing tools preferred by single mothers to share knowledge is through Internet their forum/discussion and IM/Chat. The main constraint of this paper is lack of response from single mothers because some of them refuse to take part in the survey conducted. To overcome this constraint, it is recommended to encourage and persuade respondents to participate in the survey conducted.

#### Keywords

Knowledge, Knowledge Sharing, Single Mother.

# **1.0 INTRODUCTION**

Knowledge is important to everybody. Without knowledge, one will be stuck and not able to handle any problem that exists. Knowledge can be obtained through various methods whether formal or informal. Knowledge acquired must be used carefully for use in the future.

This paper will focus in details on knowledge requirement by single mothers in Malaysia as community of practice (CoPs) through the knowledge sharing concept. Each CoP has its own requirements that make it different from others, including single mothers. According to Kotwal and Prabhakar (2009), single mother can be defined as "a family comprising of a lonely mother having their own dependent children". The numbers of single mothers in Malaysia were keeping increasing every year. According to statistics obtained from the Department of Women's Development of Ministry of Social Affairs Malaysia, until year 2000, about 126,810 single mothers were identified. Contributing factors leading to this state of affairs are; death of a husband due to illness or accidents, divorce, separation and desertion. In the year 2000, according to the Department of Women Development, about 73.2% became single mothers because of the death of their husband. Meanwhile 22.5% became single mother because of divorce and 1.7% because of separation.

## 2.0 LITERATURE REVIEW

According to Allee (1997), knowledge is an experience or information that can be communicated or shared. Allee interprets the meaning of knowledge as experience and emphasis clearly on sharable information and community. There are two types of knowledge, i.e. tacit knowledge and also explicit knowledge. Tiwana (1999), in the book entitled The Knowledge Management Toolkit: Practical Techniques for Building a Knowledge Management System indicated that tacit knowledge is personal, contextspecific knowledge that is difficult to formalize, record, or articulate and it is stored in the heads of people. The tacit component is mainly developed through a process of trial and error encountered in practice. Meanwhile, explicit knowledge is a component of knowledge that can be codified and transmitted in a systematic and formal language such as documents, databases, webs, emails, charts, etc.

According to Tiwana (1999), knowledge sharing concepts are based on general framework where tacit knowledge or skills of people is shared through formal and informal networks and explicit knowledge through systems, knowledge repositories and documentation exploitations. Both tacit and explicit knowledge are used in the SECI Model. SECI Model is a model developed by Nonaka and Takeuchi (1995) as shown in Figure 1.

The SECI model deals with knowledge that is made by individual. The individual share his or her knowledge with other individual (first quadrant) in order to diffuse knowledge then it has to be articulated such as in papers, reports, books, blogs, videos or podcasts or other media (second quadrant). When knowledge is diffused then there are individuals who can enrich it by adding to the articulated knowledge (third quadrant). Individual then read papers, reports, books, blogs, watching videos or listening to audio and thereby learns how to make use of the knowledge and eventually makes the knowledge implicit (fourth quadrant).

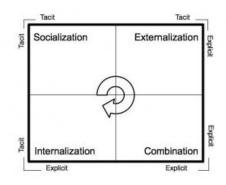


Figure 1: SECI Model (adopted from Nonaka and Takeuchi, 1995).

According to Nonaka and Takeuchi (1995), Socialization is about sharing and creating tacit knowledge through direct experience. In this context, single mother gaining the knowledge direct with other people such from other single mothers. Each member will share their tacit knowledge. For example, experience of single mother to undergoing life as single mothers, tips or method to facing with single parent problems and so on.

Meanwhile, Externalization is articulating tacit knowledge through dialogue and reflection. During the communication a person's tacit knowledge is understood by other personals. It means that tacit knowledge of a person is converted or transformed into explicit knowledge. In this context, the members of single mother portal having discussion with single mother associations, the knowledge of the single mother would be the external knowledge to other single mother associations and vice versa.

Combination is systemizing and applying explicit knowledge and information. Collecting explicit knowledge and information from outside the organization are combined systematically and applied to their organization. It means the explicit knowledge converted into explicit knowledge. Knowledge which single mother gathered from various sources such as books, articles and so on are applied in the article in the portal, blog and others.

Internalization is learning and acquiring new tacit knowledge in practice. A person is getting the knowledge from various experiences. It means that explicit knowledge gathered by a person by reading, listening, observing and many more is converted into tacit knowledge. In this context, single mother can get knowledge from the single mother portal which contains information about emotional well being, legal literacy and so on.

Knowledge Sharing Tools include websites or software that can be used to support personal and group knowledge sharing. The tools are divided into synchronous and asynchronous. Synchronous tools enable real-time communication and collaboration in a "same time-different place" mode such as Audio Conferencing, Chat, Instant Messaging (IM) and so on. Meanwhile asynchronous tools enable communication and collaboration over a period of time through a "different time-different place" mode such as blogs, email, discussion boards and etc. Tools are mapped in the SECI model and adapted in the knowledge sharing framework proposed by Aida Suzana, S., A.R. Azizah, and Z.A. Wardah, (2009) as in Figure 2. This framework used as an instrument to gather information related to single mother.

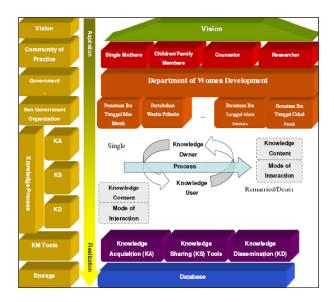


Figure 2: Knowledge Sharing Framework (adapted from Aida Suzana, S., A.R. Azizah, and Z.A. Wardah, 2009)

The role of single mothers is challenging especially when the family is headed by a woman. According to the Department of Women's Development, single mother's problems can be divided into several categories of problems such as financial, poor psychological and also physical health problems in women. Therefore, knowledge related to single mother requirements are very important to this group in order to overcome the difficulties faced and thus help to improve the living standards of single mother families. The knowledge can be acquired through sharing knowledge with outside community.

In this research, it will focus on the content that consists of knowledge and services that single mother required in knowledge sharing. Knowledge required is information that is being distributed to others such as article, bulletin and so on. Meanwhile, a service is work done provides by an individual or group that can benefits others such as online counseling, online shopping and many more. This research also focuses on the knowledge sharing tools preferred by single mothers in order to share their knowledge with others such as IM/Chat, forums and so on.

# 3.0 RESEARCH METHODOLOGY

In this research, a survey is performed to identify knowledge requirements by single mother and applying knowledge sharing concept to increase single mother's standard of living in Malaysia. The instrument used in gathering data is through interviews and questionnaires. An interview with the Department of Women Development (JPW) was done in order to obtain; information related to single mothers in Malaysia, the services provided to single mothers, the use of ICT to help single mothers and programs provided for single mothers. Based on the interview analysis, questionnaires are designed and distributed among single mothers.

In the questionnaire, there are thirty-eight questions and it's divided into three main sections which is basic personal information (A), IT knowledge and Utilization (B) and the last section is on business (C) in order to identify knowledge requirements by single mothers based on knowledge, service and knowledge sharing tools as the components of portal.

In section A, the purpose is to obtain the background of single mothers. Meanwhile, in section B, the purpose is to obtain single mothers knowledge about IT and to identify content required in terms of knowledge and services required by single mothers. In section C, the purpose is to study single mother's participation in business line and types of business they were involved.

Identification process is done by providing questions related to the use of IT where single mothers need to assess their internet skills and also their frequency of internet access in a week. This information is very important to know the level of single mother's knowledge on the use of internet.

Respondents are also asked about the content that consists of knowledge and services required by

them as a single mother. Respondents have to mark knowledge and services required based on the list in the questionnaire. Responses indicated by the respondents will be used to determine which knowledge and services that will be provided to single mothers in the portal. The same method used to identify the knowledge sharing tools preferred by single mothers to be placed in the portal. Knowledge, services and knowledge sharing tools which have been identified will be used as a basis in designing portals for single mothers in Malaysia.

A random survey was done where 60 questionnaires were distributed to single mothers in Malaysia but only 50 of them returned their feedback.

# 4.0 RESULTS

Methods applied in this project include personal interview and distributing questionnaires form. The data were analyzed as below:-

## 4.1 Interview Analysis

From the interview conducted, roles and responsibilities of the JPW and NGOs are identified. There are several NGOs responsible to the single mother's community such as single mothers association all over Malaysia. JPW roles are to plan and implement programs for single mothers in Malaysia. They also provide welfare assistance handled by JKM, skills enhancement programs enhancement of income programs as collaboration programs between JPW and NGOs and etc. The purpose of this program is to encourage single mothers to be entrepreneurs so that they can survive their life. Besides, JPW aims to help single mothers with low income. JPW also provides emotional support through the Guidance and Counseling Programs such as Legislation, Women Wisdom and Handling Trauma. They also provide entrepreneurial opportunities in collaboration with NGO(s) for single mothers. In terms of information technology, the JPW provides IT literacy program for single mothers who want to learn on writing an official letter to apply for capital assistance to start a business and so on.

NGOs play an important role in helping single mothers in Malaysia. They provide knowledge and skills for single mothers through the collaboration program with JPW. The collaboration programs such I-KIT, Skills Enhancement and Income Programs with the intention of making single mothers as women entrepreneurs. They also provide entrepreneurial opportunities in collaboration with JPW for single mothers. For the capacity building program of women, NGOs organize programs in various field such as upgrading skills, emotional support and legislation.

#### 4.2 Questionnaires Analysis

From the interview analysis, questionnaire are designed and distributed to analyze as in Table 1. It is clear from Table 1 that almost 40% of the respondents belonged to the age group of 36-45 years and only 2% of the respondents belonged to the age group of above 56 years old. Eighty-six percent of the women were Malay and 10% were Chinese. Fifty percent of the respondents were working whereas 44 % are not working. Thirty-six percent of working single mothers works at government sector and 20% working at private sector. Twenty-eight percent of respondents are degree holders, 26% Diploma and 20% SPM holders. As for monthly income of the family, 24% of the respondents received income between RM1001 - RM1500, 20% between RM1501 -RM2000 and very few receiving income above RM3500.

Table 1:	Background	Information	of the	mothers
----------	------------	-------------	--------	---------

Question	Responses	Person	%
Age	a. 36-45	20	40
(Years)	b. 26-35	15	30
	c. 18-25	10	20
	d. 46-55	4	8
	e. Above 56	1	2
Race	a. Malay	43	86
	b. Chinese	5	10
	c. Indian	2	4
	d. Others	1	2
Occupation	a. Government	18	36
Sector	b. Private	10	20
	c. Non-		
	Working/Own	11	22
	Business	11	22
	d. Retired/Pension		
Level of	a. Degree	14	28
Education	b. Diploma	13	26
	c. SPM	10	20
	d. PMR	8	16
	e. STPM	3	6
	f. Master	2	4
Monthly	a. RM1001–	12	24
Income	RM1500	10	20
	b. RM1501-	8	16
	RM2000	8	16
	c. RM501-RM1000	6	12
	d. RM2001–	3	6
	RM2500	2	4
	e. < RM500	1	2
	f. RM3001-		
	RM3500		
	g.RM2501-		
	RM3000		
	h. Above RM3500		
Factor	a. Death of husband	24	48

	b. Divorce	21	42
	c. Desertion	4	8
	d. Separation	1	2
Duration	a. 2-3 years	13	26
	b. 1-2 years	11	22
	c. > 4 years	11	22
	d. 3-4 years	9	18
	e. < 1 year	6	12
No. of	a. 4-6 child	24	48
Children	b. 1-3 child	18	36
	c. >6 child	8	16
Membership	a. Yes	42	84
	b. No	8	16

Families become single mothers due to many factors. Forty-eight percent consider as single mothers because death of husband and 42% because of divorced. Table 1 also shows that, almost 26% of the respondents had spent about 2-3 years as single mother, 22% of the mothers had spent 1-2 years and 12% of the respondents spent less than 1 year looking after the family single handedly. Forty-eight percent of the respondents had 4-6 children, 36% had 1-3 children and 16% had more than 6 children.

In an attempt to identify the knowledge of IT and content required by single mother based on knowledge, services and knowledge sharing tools, analysis on IT knowledge and utilization were performed.

Table 2 presents the results of the analysis on IT knowledge and utilization among single mothers. Most of the single mother expert in using internet and 8% are average. Finally, 48% of single mother spent more than 7 times surfing the internet in a week and only 12% of single mother never spent time surfing the internet. This can be concluded that, single mothers today are IT literate and likely applying knowledge sharing in their daily life.

Table 2: IT knowledge and Utilization in a week

Question	Responses	Person	%
Internet	Expert	20	40
Usage	Unskilled	14	28
	Very Unskilled	7	14
	Very Expert	5	10
	Average	4	8
Frequency	7- above	24	48
(Times)	4-7 times	11	22
	1-3 times	9	18
	Never	6	12

Table 3 depicts the distribution of knowledge and services required by single mothers based on the content that consists of knowledge and services that will be included in the portal. The content are divided into 5 categories such as legislation, employment and skills training, family, motivation and activity/program for single mothers.

Content	Knowledge and Services	%
Content	Required	70
Legislation	<ul> <li>Single mothers rights</li> </ul>	100
Employment &	- Entrepreneurship	100
Skills Training	<ul> <li>Job Opportunities</li> </ul>	96
	<ul> <li>Products &amp; Services</li> </ul>	68
	- Online Shopping	22
Family	- Child Education	84
	<ul> <li>Tips and Health</li> </ul>	82
	- Matchmaking	78
Motivation	<ul> <li>Religious Video</li> </ul>	86
	- Online Counseling	82
Activity/Program	- Activity	90
	- Membership	80
	- Funds & Donations	68

#### Table 3: Knowledge and Services required by single mother

Table 4: Knowledge sharing tools preferred by single mother

Category		Response	%
Knowledge	-	Internet	88
Sharing		Forum/Discussion	
Tools	-	IM/ Chatting	82
	-	Email	80
	-	Blogs	56

# 5% Sewing 29% Services 8 Retailed

Food

18%

Agriculture

Figure 3: Involvement of single mothers in the business

For the legislation content, 100% of the single mothers required knowledge about their rights as single mothers. For the employment and skills training, 100% of the single mothers required knowledge regarding entrepreneurship, 96% about job opportunities, 68% about products and services and 22% required online shopping services. In the family content, 84% of single mothers required knowledge about their child education, 82% about tips and health and 78% about matchmaking services.

In order to motivate themselves, 96% of the single mothers required knowledge on the religious video and 82% required an online counseling that allow them to communicate with the counselor in two way communication. Meanwhile, in the category of activity/program, 90% of the single mothers required knowledge about single mothers activity, 80% about the membership and 68% required knowledge about funds and donations.

Table 4 shows the knowledge sharing tools preferred by single mothers in order to share their knowledge with others. The table shows that, 88% of the respondents have selected Internet Forum/Discussion as their tools to share knowledge and followed by IM/Chatting 82%, 80% for Email and 56% using blogs.

Figure 3 shows that only 34% of single mothers are involved in various businesses types such as such as sewing 29%, services 24%, retailed 24%, food 18% and agriculture 5%. Although only a few of respondents in this survey involved in businesses, they are all agreed to advertise products/services into the platform/technology provided. For the future work, a knowledge portal is used to present information from diverse sources in a unified way. The portal is developing based on the knowledge, services and knowledge sharing tools requirements identified before. Portal is an internet website structure which connects together to provide a wide range of services to build and develop a community online, two- way community interaction through forums and other feedback mechanisms. General features of portal are build a community by quickly build online community relationships by providing a variety of interactive portlets and by allowing information and services to be targeted to a particular topic, channel or interest. Second features is organize and present information in a user friendly format by using structured categories, powerful searches, feature content on appropriate areas of the site and let site users find information quickly an easily. Finally, portal must promote active participation by encouraging user through forums, real time conferencing, chat, forums and so on. The portal offers a wide variety of web application program combining quickly into a turnkey portal site.

Knowledge requirements that have been identified, will be used as a basis to design a portal that not only meet the requirements of single mothers but also in accordance with guidelines set by MAMPU in the development of portals in Malaysia.

# 5.0 DISCUSSSION AND CONCLUSION

The purpose of this study is to identify knowledge requirements by single mother in Malaysia through the knowledge sharing concept. In addition, it also seeks to determine specific knowledge requirements by single mothers based on the content and knowledge sharing tools. Based on the results obtained, it clearly shows that each community of practice has different requirements from each other. For single mothers, they require different knowledge from other people because they have the background and problems of their own. The role of single mother is challenging, especially when the family is headed by a woman. The role of a single mother requires that the parent takes on responsibility that may have been shared with their husband. As we know, single mother have to face many problems in their daily life.

Based on the findings, legislation provides knowledge related to the laws either civil or syariah. Therefore, this knowledge useful to help single mothers understand about their rights and other related issues.

Employment and Training Skills provides knowledge related to entrepreneurship, job opportunities, products and services. Since government and NGOs have developed a variety of entrepreneurial opportunities, this knowledge can help the interested single mothers to develop themselves and in the same time increase their family income. Although some of the opportunity are available but it is not effectively disseminate throughout the community. So, the portal can be use to disseminate the knowledge and also opportunities among single mothers. Online shopping services also can help the entrepreneur single mothers to advertise and market their products.

In the family content, provide knowledge related to child education also tips and health. This knowledge can be use as guidelines for single mothers to bringing up their children and also for the single mothers physical health. Meanwhile, matchmaking services helps single mothers to find their couple and life normally as other families.

For the spiritual health, motivation provides religious video can help the single mothers to motivate themselves. Some of the single mothers are frustrated with their marriage, so this knowledge can help them to overcome their problem. An online counseling service is an alternative way of face to face counseling session. Single mothers can share and discuss their problem with the counselor in 2 way communication through online. This way is more convenient and time consuming for the single mothers.

Single mothers also required knowledge related to activities/program especially for them. This content provide knowledge about activities organized for the single mothers, funds and donation including financial plan, procedure to applying financial assistance and so on. A membership service is useful for the single mothers to keep up to date with the latest event organized for them and join the activities handle.

Knowledge sharing tools preferred by single mothers can use as a medium for single mothers to and sharing their knowledge with others. As stated in the findings, most of the single mothers preferred to use Internet Forum/Online Discussion as their knowledge sharing tools. It is an online discussion that based on the categories and topics of discussion. So, each post is submitted by users especially single mothers on certain issue, it will be displayed and can be read and referred again at anytime and anywhere. Therefore, other users can read information contained in these forums.

As a conclusion, single mothers have their own requirements depends on their problem. Therefore, sharing knowledge can be use as a solution to minimize their problem in their daily life and in the same time improve the quality of their life. They really need support from both government and also NGOs in order for them to survive. Portal used as a 'One Stop Knowledge Center' to disseminate the knowledge among single mothers community in Malaysia. With this knowledge portal is hopefully can to help meet the needs of single mothers.

#### REFERENCES

- Aida Suzana, S., A.R. Azizah, & Z.A. Wardah (2009). The Selection of Knowledge Sharing Tools for Special Children Community. University Teknologi Malaysia.
- Allee, V. (1997). The Knowledge Evolution: Expanding Organizational Intelligence. Boston, MA: Butterworth–Heinemann.
- Amrit Tiwana (1999). The knowledge management toolkit: Practical Techniques for Building a Knowledge Management System. Prentice Hall.
- Davenport, Thomas, H., & Laurence Prusak (1998). Working Knowledge: How Organizations Manage What They Know. Boston: Harvard Business School Press, Boston.
- Kotwal, N. & Prabhakar, B. (2009). Problem faced by Single Mothers. *Journal Social Science*, 21 (3), 197-204.
- Nonaka I. & Takeuchi H. (1995). *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*. Oxford University Press.