

Sustaining Knowledge Society: Information Seeking Behaviour among Rural Dwellers in Sarawak

Aiza Johari, Awang Rozaimie, Norscha Unin, and Abdul Ismail Mohd Jawi*

Universiti Teknologi MARA (UiTM) Cawangan Sarawak
94300 Kota Samarahan, Sarawak, MALAYSIA

Received Date: 15 September 2023

Acceptance Date: 20 September 2023

Published Date: 1 November 2023

Abstract. Information seeking behaviour (ISB) includes activities or actions taken by a person in identifying information needs, searching and seeking for the needed information, as well as, the behaviour for selecting and using the information to satisfy the identified needs. This ISB study seeks to explore information seeking behaviour among rural dwellers in Sarawak. Their demographical differences, which focus on age and academic qualifications, were examined based on their information-searching behaviour for preferred reading, preferred source of information, preferred information channel or medium and information trustworthiness. By utilizing a cross-sectional quantitative survey method, a proportionate distribution of 2000 questionnaires were employed to match the number of populations at 22 rural locations, identified based on Sarawak administrative districts. This study found that academic qualification and age level have more significant differences in the way that the rural dwellers indicate their information needs, information-seeking and information behaviour. The findings also illustrate that the respondents are heavily dependent on information provided by trusted people (face-to-face), such as by schoolteachers, friends and families, religious people (the imam/priest), as well as, information from reliable sources including from public libraries and public talks or events. For a greater understanding of the information needs among rural communities, local authorities may recruit and train local volunteers to assist with rural library projects. Additionally, library authorities together with local authorities and government agencies can assist these rural dwellers to readily adopt new technologies, to ensure an efficient distribution and sharing of information, especially in the remote areas of Sarawak.

Keywords: Information seeking behaviour (ISB), rural dwellers, information needs, information-seeking, information behaviour, information management.

1 Introduction

When an individual is identifying his or her information needs, searching and seeking for information, as well as, selecting and using relevant information to satisfy the needs, the activities associated with such actions are called Information-seeking behavior. Studies on information science have mainly focused on the effectiveness of library services and institutional communication (Islam & Ahmed, 2012). As such, the lack of empirical data on information needs among rural population is one of the obstacles to narrow the communication and information gap between urban and rural dwellers. In this age of rapid technological advancement, local authorities and government agencies are confronted with the urgency to bridge the information gap.

Furthermore, rural dwellers do not always know exactly what information they need, how they can meet their information needs, and from where they can get their required information (Islam & Ahmed, 2012). It is evident that the lack of knowledge on their Information-seeking behaviour makes it even more challenging to serve the rural dwellers accordingly. Rural dwellers in Sarawak are known to engage themselves in economic activities such as agriculture, livestock, forestry, fisheries, and local tourism based on readily available natural resources in the local area. Rural dwellers may also be employees of public and private sectors stationed in the rural areas.

In this study, rural dwellers include school children, working adults, and people in the community. The information they need may shape the patterns for Information-seeking Behaviour (ISB) in the area. Based on age and academic qualifications among rural dwellers in Sarawak, this study aims to:

1. Identify the demographical differences in the information needs (Types of Information),
2. Determine the demographical differences in the information-searching behaviour (Purpose for Seeking Information),
3. Ascertain the demographical differences in the Information-seeking behaviour (On-going Search),

2 Literature Review

Information is the idea, or the data obtained by a person to fulfil their need and to satisfy their ways of life. Knowledge gap and intention to satisfy one's need will direct the behaviour to search and seek for the right information. Specifically, the Information-seeking behaviour (ISB) involves the process of identifying the information needs, searching, seeking, finding, selecting, evaluating, and using the retrieved information.

The seminal works (Wilson, 1984, 1999, 2000, 2006; Ellis, 1989; Kuhlthau, 1991, 1993) on information science have proposed models related to the ISB. The Ellis's ISB models discussed the behavioural model on the information searching. There are six behavioural features that include starting, chaining, browsing, differentiating, monitoring, and extracting information.

In the context of this study, ISB refers to the elements in identifying the information needs, using information sources to search for relevant information, determining the purposes in seeking the information and understanding the experiences faced by the rural dwellers in using the information which shape their ISB.

In many developing countries, particularly in Africa and Asia, where many people live in the rural areas, these rural dwellers have uniquely different information needs from urban dwellers. It is expected that their information-seeking behaviour can be shaped or influenced by demographic factors. The information needs of an individual or group of individuals depends highly on the work or activities of such individuals. Islam and Ahmed (2012) found that some information needs have distinct location-specific content, as evident from studies in both developed and developing countries.

Other studies also stated that rural dwellers have information needs that are essential for their day-to-day living, such as health, occupation and income generation, self-governance, agriculture, education, religion, recreation, and current affairs. In the words of Che Su, Nor Hazizah and Salah (2012), factors such as culture and society of any country, the personal behaviour of the researcher, and the social, political, and economic system of a country may influence the Information-seeking behaviour of an individual. Therefore, this study was conducted to identify the demographical differences, related to age and academic qualifications in the information needs among the rural dwellers in Sarawak.

2.2 Age Groups

Age is one of the essential factors that may influence the use of information and Information-seeking behaviour within a society. Based on the different age groups, as cited by Bejtkovský (2017), baby boomers are those people who were born between 1946 and 1960; Gen x were born between 1960 and 1980; Gen Y are people who were born between 1980 and 1995; Gen Z refers to people born between 1995 and 2010; and Millennials are those who were born between 1980 and 2000 (Kaifi, Nafei, Khanfar and Kaifi, 2012).

While the Millennials have more positive attitudes toward social network media, Y Generation are more positive toward the dimension of "Work and ICT" in comparison to the X Generation (Kubiatko, 2013). Kubiatko's (2013) investigation, in the contexts of Czech and Slovak Republic, found that the Millennials and the X Generation are different from each other, in terms of their usage and the attitudes toward ICT and Internet. Kubiatko (2013) also revealed that Gen Y did not have problems with changing television programs, reading newspapers besides surfing on the internet. The findings are consistent with a previous study by Selwyn (2009).

Generally, for the students, either primary or university levels, they will need to acquire adequate application of ISB so that they are able to seek the right information to complete their academic tasks, assignments, or schoolwork. Many past scholars acknowledged that when students were being given tasks and assignments about the course requirements, they will automatically seek for the required information independently and refer to the right information sources in relation to academic

information (Nur Hidayah and Wan Nor Bayah, 2014). The researchers further implied that the procedures of seeking and searching for effective information entails great effort, in which they must be able to know how to use the correct method of obtaining the information to satisfy their information needs.

When it comes to health-related information, young females in rural communities generally gain information from women's magazines as they were embarrassed in acquiring menstruation-related information (Wong, 2011). Consequently, they prefer to gain information from peers. For information-seeking behaviour of sexual and reproductive health (SRH) among rural adolescents in Sarawak, Malaysia, it was found that the internet was the main source for SRH information, followed by peers and electronic media (Panting et al., 2018). These findings are supported by Malaysian Youth Index 2015 (IYRES, 2015) which reported that 65.1% of Malaysian adolescents utilized the internet to obtain information on health as compared to information on religion (66.6%) and entertainment (83%). It can be concluded that being younger, more educated, and having a higher SES were the contributors of internet use for health information seeking (Tennant et al., 2015).

Since the ISB literature asserts that age is a factor that affects information-seeking behaviour within a society, this study seeks to ascertain the ISB among rural dwellers in Sarawak, based on the different age groups for baby boomers, Gen X, Gen Y, Gen Z and the Millennials.

2.2 Academic Qualifications.

Individuals with different academic backgrounds may be seeking for different types of information. Their source of information and the purpose for seeking such information may also differ. People with higher educational attainment tend to have higher health literacy levels, which allow them to attain better access, understand, and communicate actionable health information (Berkman et al., 2011; Hills, 2011; Yin et al., 2012 and Fagerlin, Zikmund-Fisher and Ubel, 2011). A study by Feinberg et al. (2016) disclosed that adults with a high school diploma used more text-based health information sources (such as magazines, brochures, and books), while adults without a high school diploma used more oral sources (seeking other individuals' views and suggestions).

In a more recent study carried out by Jacobs and Amuta, (2017), participants with higher educational backgrounds were more likely to use the internet as a source of health information and those with more education were less likely to use family, friends, and co-workers as a source of health information. Participants from lower socio-economic statuses (SES) were more likely to use traditional media as a source of health information.

When examining the higher education levels, Joshi and Nikose (2010) who studied the ISB among the undergraduates and postgraduates of engineering colleges in Chandrapur District, had reported that email and discussion with teachers and lecturers were the most favourable methods to gain information. Moreover, they also perceived peers and lecturers to be helpful in guiding them to numerous useful sources of information. In fact, according to the respondents, the teachers and lecturers can

provide them with journal articles and books. It is interesting to note that the respondents prefer information in both printed and electronic mediums, in which they seek for information from electronic resources, as well as referring to their educators, and looking into conventional printed materials and documents.

In this study, academic qualifications are analysed based on the different attainment levels such as School Leavers for those who attended primary and secondary schools; Certificate for skill-based qualifications; Graduate for post-secondary education such as Diploma, Advanced Diploma and Bachelor's Degree; Post-Graduate for Master, PhD, and Professional qualifications; and Others for those without formal education or not specified.

3 Methodology

This quantitative study is conducted as cross-sectional data collection. All various levels of samples (consisting of different age groups among the rural dwellers) were involved at a single point of data collection. The unit of analysis was at individual level and across the demographic profile. The level of analysis, included rural dwellers such as school children, working adults, and the community. The survey data is gathered through the distribution of the questionnaires adapted from previous studies (Anwar & Supaat, 1998; Bakar, 2011; Hamzah et. al., 2015; Wilson, 1997).

For this study, 2,000 data was collected, which is approximately 0.25% (2,000/798,596) of the estimated rural population in Sarawak. The survey questions include the elements of information needs, information-searching, information-seeking, and the Information-seeking behaviour as well as the demographic profiles. There are five sections in the questionnaire. Part One measures the information needs. Part Two measures the information-searching behaviour which is operationalized as the sources of information. This part comprises 55 items across four dimensions, namely preferred reading, preferred source of information, preferred information channel / medium and information trustworthiness. While Part Three measures the information-seeking behaviour, which is operationalized as the purpose for seeking information. Part Four measures the information behaviour, which is operationalized as the experiences in seeking the information. The last part of the questionnaire is also designed to capture the respondent's demographic information, in which this paper will focus on age and academic qualification.

Descriptive analyses were used to provide empirical data pertaining to the three elements of information needs, sources of information, and the Information-seeking behaviour among rural dwellers. In addition, the cross-tabulation, correlation and other simple regression analyses of ANOVA were examined to identify the composition of the ISB across the demographic characteristics among rural dwellers in Sarawak.

4 Findings

4.1 Respondents' Demographic Profiles

More than half (58.1%) of the respondents were female. While more than half (55.4%) were Christians, almost half (47.3%) were married (with or without children). 36.8% of them were Gen Z (age ≤ 24). Majority (66.1%) have attended schools (highest academic qualification is either primary or secondary school). A third of the respondents were Iban (32.3%) in terms of ethnicity. Table 1 shows details of the respondents' demographic profile.

Table 1: Respondents' Demographic Profiles

Demographic	n	%
Gender		
Female	1162	58.1
Male	836	41.8
Not specified	2	0.1
	2000	100
Religious Belief		
Christian	1108	55.4
Islam	814	40.7
Others (Pagan/ Hinduism/ Baha'i/ Not specified)	43	2.2
Buddhism	35	1.8
Marital Status		
Married (with/without Children)	946	47.3
Single	942	47.1
Single Parent (Widow/ Widower/ Divorced/ Separated)	92	4.6
Others (Living with partner/ Engaged/ Not Specified)	20	1.0
Age Source: Smith & Nichols (2015)		
Gen Z (≤ 24)	736	36.8
Gen Y (Millennial) (25 – 39)	606	30.3
Gen X (40 – 54)	404	20.2
Baby Boomers (≥ 55)	234	11.7
Not specified	20	1.0
Academic Qualification		
School (Primary/ Secondary)	1322	66.1
Graduate (Diploma/ Adv. Dip. / Bachelor)	538	26.9
Other (None/ Not specified)	89	4.5
Post-Graduate (Master/ Ph.D./ Professional)	32	1.6
Certificate (Skills)	19	1.0
Ethnicity		
Iban	645	32.3

Sustaining Knowledge Society: Information Seeking Behaviour among Rural Dwellers in Sarawak

Malay	526	26.3
Melanau	277	13.9
Bidayuh	237	11.9
Orang Ulu	200	10.0
Chinese	58	2.9
Others	57	2.9

4.2 Types of Information Based on Age Groups

Table 2: Age levels differences based on the types of information needs

≤ 24 (n=734)	\bar{x}	25-39 (n=599)	\bar{x}	40-54 (n=399)	\bar{x}
Foods	8.43	Work/Job-related	8.43	Work/Job-related	8.4
Entertainment/Sports/Games	8.01	Foods	8.1	Foods	8.3
Work/Job-related	7.99	Current Affairs	7.62	Current Affairs	7.4
Hobbies/Deco/DIY	7.57	Business/Finance	7.56	Agriculture/Gardening	7.4
Business/Finance	7.34	Entertainment/Sports/Games	7.54	Business/Finance	7.4
Current Affairs	7.18	Hobbies/Deco/DIY	7.27	Entertainment/Sports/Games	7.3
Shopping/Fashion/Beauty	6.78	Agriculture/Gardening	6.91	Hobbies/Deco/DIY	7.2
Agriculture/Gardening	6.43	Shopping/Fashion/Beauty	6.85	Shopping/Fashion/Beauty	6.6
≥ 55 (n=233)	\bar{x}	Not-specified (n=20)	\bar{x}		
Foods	7.9	Foods	9		
Agriculture/Gardening	7.27	Work/Job-related	8.78		
Work/Job-related	7.1	Business/Finance	8.44		
Current Affairs	6.93	Current Affairs	8.05		
Entertainment/Sports/Games	6.75	Hobbies/Deco/DIY	7.94		
Hobbies/Deco/DIY	6.46	Entertainment/Sports/Games	7.72		
Business/Finance	6.45	Agriculture/Gardening	7.11		
Shopping/Fashion/Beauty	5.62	Shopping/Fashion/Beauty	6.99		

Based on the different age categories, there is a significant difference in the Information Needs (Types of Information) among rural dwellers in Sarawak, for example, there is a significant difference for the millennial (Age 25-39) and baby boomers (Age ≥ 55). While Work/Job-related and Foods are the two topmost important for the

millennial, Foods and Agriculture/Gardening are the two topmost important for baby boomers. This finding on rural youth is inconsistent with another study (IYRES, 2015) among Malaysian youths, which found that entertainment, religion and health are the topmost important types of information they obtain from the internet. Since there is a lack of literature on the information needs of baby boomers in rural areas, this finding is a significant contribution to the existing literature.

4.3 Types of Information Based on Academic Qualification

For academic qualifications, there is also a significant difference in the Information Needs (Types of Information) among rural dwellers in Sarawak. The significant difference is more evident for respondents with less or lower education levels i.e., school leavers and others (lacks formal education). While work/Job-related and Foods are two most important types of information for those with school qualification, Agriculture/Gardening and Foods are important for those who lack formal education. Current affairs and Shopping/Fashion/Beauty are least important for these two low education levels respectively.

ISB studies are more common among participants with higher educational backgrounds (Zaidar, 1995; Joshi & Nikose, 2010; Berkman et al., 2011; Fagerlin, Zikmund-Fisher & Ubel, 2011; Hills, 2011; Yin et al., 2012; Tennant et al., 2015; and Jacobs & Amuta, 2017) and many of these studies focused on sources of information rather than types of information. Additionally, a study on participants with lower educational backgrounds i.e., adults with and without a high school diploma also focused on health Information-seeking (Feinberg et al., 2016). Therefore, this finding is a significant contribution for Information needs among the participants with lower education levels.

Table 3: Academic qualification differences based on the types of information needs

School (n=1310)	\bar{x}	Certificate (n=19)	\bar{x}	Graduate (n=537)	\bar{x}
Foods	8.26	Work/Job-related	8.84	Work/Job-related	8.48
Work/Job-related	7.98	Foods	8.37	Foods	8.17
Entertainment/Sports/Games	7.62	Business/Finance	7.84	Entertainment/Sports/Games	7.75
Hobbies/Deco/DIY	7.31	Hobbies/Deco/DIY	7.68	Current Affairs	7.71
Business/Finance	7.28	Current Affairs	7.42	Business/Finance	7.54
Current Affairs	7.22	Agriculture/Gardening	7.32	Hobbies/Deco/DIY	7.33
Agriculture/Gardening	6.85	Entertainment/Sports/Games	6.84	Shopping/Fashion/Beauty	6.95
Shopping/Fashion/Beauty	6.56	Shopping/Fashion/Beauty	5.58	Agriculture/Gardening	6.75
<i>Post-graduate (32)</i>		<i>Others (n=87)</i>			
Work/Job-related	8.87	Foods	8.51		
Current Affairs	8.12	Agriculture/Gardening	8.07		
Foods	8.1	Work/Job-related	7.42		
Hobbies/Deco/DIY	7.84	Current Affairs	6.64		
Business/Finance	7.44	Business/Finance	6.37		
Entertainment/Sports/Games	7.41	Hobbies/Deco/DIY	6.28		
Shopping/Fashion/Beauty	7.33	Entertainment/Sports/Games	6.19		
Agriculture/Gardening	6.56	Shopping/Fashion/Beauty	5.5		

4.4 Purpose for Seeking Information Based on Age Groups

There are differences in the Purpose for Seeking Information among rural dwellers in Sarawak based on the different age groups, particularly for Generation Y (age 25-39) and Baby Boomers (age ≥ 55). Although both age levels consider work related and Family & Children as two most important purposes, Generation Y being younger than baby boomers consider work-related and the later consider Family & Children as the most important purpose in their Information-searching Behaviour. The findings for Generation Y augurs well with Kubiatico (2013) who found that Generation Y had more positive attitudes toward the dimension of “Work and ICT”. Love & Romance are the least important purpose for both Gen Y and Baby Boomers.

Table 4: Age levels differences based on the purpose of seeking information (primary)

≤ 24 (n=734)	\bar{x}	25-39 (n=599)	\bar{x}	40-54 (n=399)	\bar{x}
Family & Children	8.02	Work-related	8.3	Work/Job-related	8.4
Work-related	7.72	Family & Children	8.29	Foods	8.3
Job-search	7.7	Job-search	7.64	Current Affairs	7.4
Travel	7.46	Business Opportunity	7.46	Agriculture/Gardening	7.4
Business Opportunity	7.16	Home Improvement/Renovation	7.17	Business/Finance	7.3
Home Improvement/Renovation	6.98	Travel	7.15	Entertainment/Sports/Games	7.32
Crop & Agriculture	6.39	Crop & Agriculture	6.86	Hobbies/Deco/DIY	7.2
Love & Romance	6.25	Love & Romance	6.19	Shopping/Fashion/Beauty	6.56
≥ 55 (n=233)	\bar{x}	Not-specified (n=20)	\bar{x}		
Family & Children	8.47	Family & Children	7.7		
Work-related	8.25	Work-related	6.91		
Home Improvement/Renovation	7.13	Crop & Agriculture	6.77		
Crop & Agriculture	7.09	Home Improvement/Renovation	6.33		
Job-search	7.07	Business Opportunity	6.04		
Business Opportunity	6.77	Job-search	5.9		
Travel	6.6	Travel	5.83		
Love & Romance	5.63	Love & Romance	4.72		

4.5 Purpose for Seeking Information Based on Academic Qualifications

Based on academic qualifications, there are also differences in the Purpose for Seeking Information among the rural dwellers in Sarawak. Graduate and Others (who do not have formal education) differed significantly, with approximately 9.87% differences. The top two most important purposes for Graduates are work-related and Family & Children. For others with no formal education, the two most important purposes are Family & Children and Crop & Agriculture. While other studies (Zaidar, 1995; Gollop, 1997; Amuta, 2017) emphasized the importance of health knowledge for participants with higher education level, this study found that graduates are more inclined for work related information, as well as, information related to Family & Children. Love & Romance are similarly rated as the least important purpose for both groups with graduate and other (no formal) qualifications.

Table 5: Academic qualification differences based on the purpose of seeking information (primary)

40-54 (n=399)	\bar{x}	School (n=1310)	\bar{x}	Certificate (n=19)	\bar{x}	Graduate (n=537)	\bar{x}
Work/Job-related	8.4	Family & Children	8.12	Family & Children	8.84	Work-related	8.52
Foods	8.3	Work-related	7.72	Work-related	8.37	Family & Children	8.34
Current Affairs	7.4	Job-search	7.35	Job-search	7.84	Job-search	7.5
Agriculture/Gardening	7.4	Business Opportunity	7.07	Home Improvement/Renovation	7.68	Travel	7.44
Business/Finance	7.3	Home Improvement/Renovation	7.02	Business Opportunity	7.42	Business Opportunity	7.18
Entertainment/Sports/Games	7.32	Travel	6.95	Crop & Agriculture	7.32	Home Improvement/Renovation	7.13
Hobbies/Deco/DIY	7.2	Crop & Agriculture	6.75	Travel	6.84	Crop & Agriculture	6.58
Shopping/Fashion/Beauty	6.56	Love & Romance	6	Love & Romance	5.58	Love & Romance	5.91
		<i>Post-graduate (32) \bar{x}</i>	\bar{x}	<i>Others (n=87) \bar{x}</i>	\bar{x}		
		Work-related	8.88	Family & Children	7.69		
		Family & Children	8.25	Crop & Agriculture	7.57		
		Travel	8.06	Work-related	6.85		
		Job-search	7.41	Job-search	6.47		
		Business Opportunity	7.06	Business Opportunity	5.96		
		Home Improvement/Renovation	7	Home Improvement/Renovation	5.95		
		Crop & Agriculture	6.44	Travel	5.19		
		Love & Romance	6.34	Love & Romance	5.02		

4.6 Ongoing Search Based on Age Groups

Based on age groups, there are differences in the Information-seeking Behavior (Ongoing Search) among rural dwellers in Sarawak, particularly for Generation Y (age 25-

39) and Baby Boomers (age ≥ 55). Although both age levels consider work related and Family & Children as the top two most important purposes, Generation Y being younger than baby boomers consider work-related and the later consider Family & Children as the most important purpose in their Information-seeking Behavior. The findings for ongoing search among these Generation Y support Kubiak's (2013) study that Generation Y had more positive attitudes toward the dimension of "Work and ICT". Similarly, Love & Romance are the least important ongoing search for both age levels.

Table 6: Age levels differences in ongoing Search

≤ 24 (n=734)	\bar{x}	25-39 (n=599)	\bar{x}	40-54 (n=399)
Assignment/Homework/Project	7.82	Work-related	8.05	Family & Children
Family & Children	7.65	Family & Children	8.01	Work-related
Work-related	7.45	Job-search	7.40	Assignment/Homework/P
Job-search	7.36	Assignment/Homework/Project	7.30	Home Improvement/Reno
Travel	7.10	Business Opportunity	7.29	Crop & Agriculture
Business Opportunity	6.98	Home Improvement/Renovation	7.13	Job-search
Home Improvement/Renovation	6.84	Travel	7.02	Business Opportunity
Crop & Agriculture	6.20	Crop & Agriculture	6.68	Travel
Love & Romance	6.07	Love & Romance	6.09	Love & Romance
≥ 55 (n=233)	\bar{x}	Not-specified (n=20)	\bar{x}	
Family & Children	7.17	Family & Children	8.85	
Work-related	6.81	Work-related	8.64	
Crop & Agriculture	6.61	Job-search	8.12	
Home Improvement/Renovation	6.15	Home Improvement/Renovation	8.05	
Job-search	5.95	Business Opportunity	7.97	
Assignment/Homework/Project	5.94	Assignment/Homework/Project	7.77	
Business Opportunity	5.90	Travel	7.75	
Travel	5.81	Crop & Agriculture	7.56	
Love & Romance	4.54	Love & Romance	6.10	

4.7 Ongoing Search Based on Academic Qualifications

Based on academic qualifications, there are also differences in the Information-seeking Behaviour (Ongoing Search) among rural dwellers in Sarawak. Postgraduate and Others (who do not have formal education) differed significantly, with approximately 12.88% differences. The top two most important Ongoing Search for Postgraduates are work related and Assignment/Homework/Project. For others, the two most important Ongoing Search are Family & Children and Crop & Agriculture, which is

similar to the purpose of seeking information. While other studies (Zaidar, 1995; Gollop, 1997; Amuta, 2017) emphasized the importance of health knowledge for participants with higher education level, this study found that the postgraduates' ongoing search are rated highly for work related information, as well as, for Assignment/Homework/Project. Love & Romance are similarly rated as the least important ongoing search for both graduate and other qualifications.

In summary, the findings indicate that there are significant differences in information seeking behavior related to types of information, purpose for searching information, and the ongoing search for seeking information. The differences are reflected based on not only the age groups, but also the academic qualifications of the participants.

Table 7: Academic qualification differences in ongoing search

<i>School (n=1310)</i>	\bar{x}	<i>Certificate (n=19)</i>	\bar{x}	<i>Graduate (n=537)</i>
Family & Children	7.70	Work-related	8.79	Work-related
Work-related	7.47	Family & Children	8.63	Family & Children
Assignment/Homework/Project	7.22	Job-search	7.74	Assignment/Homework/Project
Job-search	7.03	Home Improvement/Renovation	7.63	Travel
Home Improvement/Renovation	6.83	Business Opportunity	6.97	Job-search
Business Opportunity	6.81	Assignment/Homework/Project	6.89	Business Opportunity
Travel	6.69	Crop & Agriculture	6.79	Home Improvement/Renovation
Crop & Agriculture	6.47	Travel	6.16	Crop & Agriculture
Love & Romance	5.79	Love & Romance	5.26	Love & Romance
<i>Post-graduate (32)</i>	\bar{x}	<i>Others (n=87)</i>	\bar{x}	
Work-related	8.84	Crop & Agriculture	7.52	
Assignment/Homework/Project	8.44	Family & Children	7.32	
Family & Children	8.00	Work-related	6.68	
Travel	7.41	Job-search	6.38	
Home Improvement/Renovation	7.31	Home Improvement/Renovation	6.29	
Job-search	7.28	Assignment/Homework/Project	5.79	
Business Opportunity	7.19	Business Opportunity	5.77	
Crop & Agriculture	6.75	Travel	5.29	
Love & Romance	6.44	Love & Romance	5.02	

5 Implications and Recommendations

To riposte the first research objective of the present study (to identify the information needs of the rural dwellers in Sarawak), the result has shown that there are eight items that are considered as important types of information needed by the rural dwellers in Sarawak. Those needed information include shopping/fashion/beauty, hobbies/deco/DIY, business/finance, entertainment/sport/games, work/job related, current

affairs, agriculture/gardening, and foods. However, the four items that are perceived as not as highly important are family affairs, health, religion, and education. As these items are considered as parts of their daily life among the rural dwellers, this information is readily available and they could seek the answers or clarifications from the immediate sources, such as the religious preachers, educators, or medical practitioners in the villages.

As a result, the eight important types of needed information could be deliberately considered when determining the way forward in providing information to the rural population of Sarawak. Specifically, in obtaining the information, there are also differences in the information needs based on the ethnic groups, religious beliefs, and occupations. Apparently, the result of the present study has shown insufficient statistical evidence to prove that there are differences in terms of age and academic qualification among the rural dwellers in Sarawak in obtaining such information.

The second research objective of the present study (to determine the information searching behaviour -sources of information) of the rural dwellers in Sarawak, the result has shown that online academic/religious/general books, webpages, printed academic & religious book, and the online magazines are the preferred reading materials chosen by the rural dwellers in Sarawak. However, printed materials, especially newspapers and magazines seem to gain lower amount of importance as the sources of information. This might occur due to the difficulty in getting printed newspapers and magazines to the rural areas. This difficulty to gain access to such materials might be affected by factors such as geographical, transportation costs and level of literacy among rural dwellers. On a positive note, a high preference for online reading materials demonstrates the need to align strategies to optimise the use of online information in the rural areas. The strategies for online sources of information must consider the fact that there are differences in the preferred reading choices, based on the ethnic groups, religious beliefs, and occupations. Local government and public libraries may consider indigenous low-cost innovative technologies in providing internet access to rural areas to bridge the digital divide.

First, it is found that the most frequently used or preferred sources of information are schoolteachers, families/relatives, library, friends/neighbours, Imam, printed materials, TV/Radio, and online sources/social media. On the other hand, the least frequently used or preferred sources of information are the YBs (parliamentary representatives), priests, government officers and heads of the village. Therefore, libraries can collaborate with the media house and other government agencies to package and disseminate precise information that meets the needs of the rural dwellers of different localities. Public libraries may recruit and train local volunteers to work in rural library projects in pursuit of gaining better understanding of the rural community's information needs.

Second, it is also discovered that the highly important of preferred information channels/mediums perceived by rural dwellers in Sarawak are audio recordings, video recordings, official events, live speech/sermons, products/marketing demo., printed information, phone calls, live on TV/Radio, social gatherings, text messaging, side conversations, religious discourse. Notably, it is illustrated that the social media and Internet are perceived as the least important of preferred information channels/mediums as

perceived by rural dwellers in Sarawak. The possibility of this response was due to limited network access in the rural area. Therefore, the librarians can collaborate with local authorities and government agencies to assist the rural communities to readily adopt new technologies. Alternative channels such as extensive services in providing information services to rural areas need to be considered by the local libraries. Additionally, local volunteers can be recruited and trained to work in rural library projects. More studies can be carried out to explore and assess the use of mobile phones and wireless Internet in improving the lives of rural residents.

Third, it is found that the most important information in term of trustworthiness as perceived by the rural dwellers in Sarawak are live speech/sermons, official events, religious discourse, printed information, live on TV/Radio, products/marketing demo., audio recordings, phone calls, video recordings, text messaging, side conversations, and social gatherings. Consistent with the preferred information channels/mediums discussed earlier, social medias and Internet are perceived as the least important preferred information channels/mediums by the rural dwellers in Sarawak. The possibility of this response is due to the limited network access in rural areas. Hence, community outreach programmes can be organized and used to disseminate the information that could aid the socio-economic, political, and general enlightenments of the rural dwellers.

The third research objective of the present study is to ascertain the information-seeking behaviour (purpose for information) of the rural dwellers in Sarawak. The result has indicated that the respondents strongly agreed that the purpose of seeking information are due to:

1. The main purpose: searching for business opportunity, job- search, home Improvement/renovation, love & romance, crop & agriculture, work-related, family & children, travel.
2. Secondary purpose: problem solving, knowledge & curiosity, self-development, skills improvement.

Apparently, the respondents showed strong disagreement that their purposes of seeking for information are for entertainment, leisure, social network, small talk, and doing assignment/homework/project. Thus, the activities, events and programs organised by the local authorities and government agencies should be assessed regularly, so that they will suit the purposes of the rural dwellers when seeking for information. The local government can organise adult education programs for the rural dwellers as this will enhance their information utilization capacity.

The fourth research objective of the present study aims to understand the information behaviour among rural dwellers in Sarawak (experiences related to their Information-seeking behaviour-ISB). The result has shown that the respondents strongly agreed that the information usefulness is obtained when the information is gathered exactly as intended, achieve the purpose, meeting the right person/ being at the right place, gain supporting materials, and attain the right sources from different channels. In addition, for the informational behaviour of Passive Attention, Passive Search, Active Search, and Ongoing Search, the top three common reasons of informational usefulness are to obtain business opportunity, to search for job opportunities and to find information on crop and agriculture. To achieve informational sustainability among the rural dwellers in Sarawak, rural libraries and NGOs can play crucial roles in delivering relevant and

useful information to the rural dwellers. The provision of information should be encouraging local people to be actively engaged in seeking opportunities in education, employment, health, housing, as well as institutional resources, facilities, and services. Information providers could also offer guidance in seeking information on rural economic activities, social amenities, social participation, and political involvement.

6 Conclusion

There are differences in the Information needs (Types of Information), Information-searching Behaviour (Purpose for Seeking Information), and Information-seeking Behaviour (Ongoing Search for Information), in accordance with the demographic contexts of the rural dwellers in Sarawak, in which the objectives were achieved accordingly. To determine the information searching behaviour (sources of information) of the rural dwellers in Sarawak, more online materials are required compared to printed materials to fulfil their needs, while the respondents preferred to refer to certain individuals as their sources of information (trustworthy individuals from nearby vicinity).

In terms of information trustworthiness, the most trusted and reliable sources were from live speech during official events or religious sermons and discourse, printed information as well as mass media. The rural dwellers highly favoured information channels or mediums such as audio and video recordings as well as official events. To ascertain the Information-seeking behaviour in relation to the purpose of seeking for information, most of the respondents strongly agreed that they would seek the information for certain reasons such as for business opportunity, job-search, home improvement/ renovation, love & romance, crop & agriculture, work-related, family & children and travel. Another accomplished objective is to understand the information behaviour among the rural dwellers in Sarawak, mainly the experiences related to their Information-seeking behaviour. The respondents strongly agreed that the information that they sought were what was intended by achieving their purposes of seeking the information, referring to the most suitable person and place and obtaining correct sources from different trusted channels. Notably, few recommendations were also provided in accordance with the findings collected, in which the local libraries, local authorities and the government can play major roles to improve the support and services provided.

Acknowledgments

The authors would like to express their gratitude to Pustaka Negeri Sarawak for the grant to conduct this study, the management of UiTM Sarawak for the support and, the participants of this study who had given their full commitments in completing the surveys.

References

- Anwar, M. A., & Supaat, H. I. (1998). Information needs of rural Malaysians: An exploratory study of a cluster of three villages with no library service. *The International Information & Library Review*, 30(1), 23-36.
- Bakar, A. B. A. (2011). Information-seeking behaviours of rural women in Malaysia. *Library Philosophy and Practice (e-journal)*. Paper 461. <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1479&context=libphilprac> [accessed on 23rd March 2017]
- Bejtkovský, J. (2017) The Current Generations: The Baby Boomers, X, Y and Z in the Context of Human Capital Management of the 21st Century in Selected Corporations in the Czech Republic. From: <http://journals.vstecb.cz/wp-content/uploads/2017/02/The-Current-Generations-The-Baby-Boomers.pdf> on 18 November 2019
- Berkman, N.D., Sheridan, S.L., Donahue, K.E., Halpern, D.J. & Crotty, K. (2011) Low health literacy and health outcomes: an updated systematic review. *Ann Intern Med*. 155(2):97–107. doi: 10.7326/0003-4819-155-2-201107190-00005
- Che Su Mustaffa, Nor Azizah Ahmad & Salah Saudat Abdul Baqi (2012) Assessing Information-seeking Behavior Among Members of University Community in Malaysia and Nigeria: A Multigroup Invariance Analysis. International Conference on Communication, Media, Technology and Design ICCMTD 9-11 May 2012 Istanbul - Turkey. From: <https://pdfs.semanticscholar.org/b62f/8c18df7f84a921e91dc9d714ed8e1fa8ac2b.pdf> on 10 November 2019.
- Ellis, D. (1989). A behavioural approach to information retrieval system design. *Journal of documentation*, 45(3), 171-212.
- Fagerlin, A., Zikmund-Fisher, B.J. & Ubel, P.A. (2011) Helping patients decide: ten steps to better risk communication. *J Natl Cancer Inst*. 103(19):1436–43. doi: 10.1093/jnci/djr318
- Feinberg, I., Frijters, J., Johnson-Lawrence, V., Greenberg, D., Nightingale, E. & Moodie, C. (2016) Examining Associations between Health Information-seeking Behavior and Adult Education Status in the U.S.: An Analysis of the 2012 PIAAC Data. *PLoS ONE* 11(2): e0148
- Gollop, C. J. (1997). Health information-seeking behavior and older African American women. *Bulletin of the Medical Library Association*, 85, 141.
- Hamzah, M. R., Mohammad, E. M. W., Abdullah, M. Y., & Ayub, S. H. (2015). Scenario on health Information-seeking in Malaysia: A Systematic review. *Journal of Human Development and Communication*, 4, 7-20.
- Hill L.H. (Ed) (2011) *Adult education for health and wellness. New directions for adult and continuing education*. No. 130. San Francisco: Jossey-Bass; 112
- Institute for Youth Research Malaysia (IYRES) (2015). *Malaysian Youth Index 2015 (MYI'15)*. Measuring The Youth Life Well-Being. Institute for Youth Research Malaysia (IYRES), Putrajaya.
- Jacobs, W. & Amuta, A. (2016). *Health Information-seeking in the Digital Age: A Four-Year Trend Analysis of Health Information-seeking Behavior Among US Adults*.
- Joshi, P. A. and Nikose, D.M. (2010) Information-seeking Behaviours of Users: *A Case Study of Private Higher Technical Education Libraries in Chandrapur District*. From: http://eprints.rclis.org/3794/1/Information_seeking_Behaviours_of_Users_in_Information_Age.pdf on 12 January 2020

Sustaining Knowledge Society: Information Seeking Behaviour among Rural Dwellers in Sarawak

- Islam, M. S., & Ahmed, S. Z. (2012). The information needs and information-seeking behaviour among rural dwellers: A review of research. *IFLA journal*, 38(2), 137-147.
- Kaifi, B. A., Nafei, W. A., Khanfar, N. M., & Kaifi, M. M. (2012). A multi-generational workforce: managing and understanding millennials. *International Journal of Business & Management*. 7(24), 88-93.
- Kubiatko, M. (2013) The Comparison of Different Age Groups on the Attitudes toward and the Use of ICT. *Educational Sciences: Theory & Practice*. 13(2), 1263-1272
- Kuhlthau, C. C. (1993). A principle of uncertainty for information seeking. *Journal of documentation*, 49(4), 339-355.
- Kuhlthau, C.C. (1991). Inside the search process: Information-seeking from the user's perspective. *Journal of the American Society for Information Science*, 42(5): 361-371.
- Nur Hidayah Che Ahmat & Wan Nor Bayah Wan Kamarudin (2014) Information-seeking Behaviour (ISB) and Information Needs Satisfaction Among Postgraduate Students In Universiti Teknologi Mara, Malaysia. *Journal of Tourism, Hospitality & Culinary*. 6 (2).
- Panting, A.J., Haslinda Abdullah, Ismi Ariff Ismail & Samsilah Roslan. Information-Seeking Behaviour on Sexual and Reproductive Health Among Rural Adolescents in Sarawak, *Malaysia International Journal of Public Health and Clinical Sciences*. 5 (1) 2289- 7577
- Selwyn, N. (2009). The digital native - myth and reality. *Aslib Proceedings*, 61 (4), 364-379.
- Tennant, B., Stellefson, M., Dodd, V., Chaney, B., Chaney, D., Paige, S., & Alber, J. (2015). eHealth literacy and web 2.0 health Information-seeking behaviors among baby boomers and older adults. *Journal of Medical Internet Research*, 17, e70. doi:10.2196/jmir.3992.
- Wilson, T. D. (1984). The cognitive approach to information-seeking behaviour and information use. *Social Science Information Studies*, 4(2-3), 197-204.
- Wilson, T. D. (1997). Information behaviour: an interdisciplinary perspective. *Information processing & management*, 33(4), 551-572.
- Wilson, T. D. (1999). Models in information behaviour research. *Journal of documentation*, 55(3), 249-270.
- Wilson, T. D. (2000). Human information behaviour. *Informing science*, 3(2), 49-56.
- Wilson, T., Ellis, D., Ford, N., & Foster, A. (2000). Uncertainty in information seeking. *Library and Information Commission Research Report*.
- Wong, L. P. (2011). Premenstrual syndrome and dysmenorrhea: urban-rural and multiethnic differences in perception, impacts, and treatment seeking. *Journal of Pediatric and Adolescent Gynecology*, 24(5), 272-277.
- Yin, H.S., Dreyer, B.P., Vivar, K.L., MacFarland, S., Van Schaick, L. & Mendelsohn, A.L. (2012) Perceived barriers to care and attitudes towards showed decision-making among low socioeconomic status parents: role of health literacy. *Acad Pediatr*. 2012 Mar-Apr; 12(2):117-24. doi: 10.1016/j.acap.2012.01.001
- Zaidar, T.Z.A. (1995) Information-seeking Behaviour, Health Knowledge, Attitude and Practice of Patients in Hospital Besar Tengku Ampuan Rahimah, Klang, Selangor Darul Ehsan. *Unpublished Master's Dissertation*. Universiti Putra Malaysia