

Barriers to Effective Information Seeking of Social Scientists in Developing Countries: The Case of Sultan Qaboos University in Oman

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Abstract

The purpose of the study was to investigate barriers affecting information-seeking behaviors of social science scholars at Sultan Qaboos University (SQU) in Oman. It will help to redress the balance and provide a better understanding of the barriers and constraints facing scholars in the developing world. Qualitative data are collected using 21 e-mail interviews and 16 face-to-face interviews were conducted. Content analysis technique was used to analyze the qualitative data generated from the email and face-to-face interviews. It was found that social scientists at SQU face two different types of challenges and barriers which are library-related barriers, such as inadequate library resources, problems with the organization of library resources, information technology limitations, and lack of adequate training; and non library-related barriers, such as inadequate internet connections, lack of adequate time for research, and language/cultural related barriers. The study reported that the SQU main Library can overcome these barriers by improving and expanding library resources, providing better information technology facilities, and providing more support and training to users.

Keywords: Social Scientists, Information Seeking Behavior, Information Resources, Information Seeking Barriers.



Introduction

As inter-disciplinary researchers, social scientists face a number of specific challenges and potential barriers to effective information-seeking. Different academic disciplines to a large extent have their own specialist languages and terminology; this can be barrier serious a communication and understanding across disciplines (Brittain, 1970; Broadus, 1971, Palmer, 1996). The more subject areas scientists cover the greater their command of different vocabularies needs to be (Murphy, 2003).

According to Lee (2005), although many researchers consider physical collections of resources, such as those available in a library, to be useful for effective information retrieval, they can also present obstacles to information-seeking because they cannot be modified to meet individual needs. This is especially the case for inter-disciplinary scholars, who often need to be able to simultaneously search several sub-disciplinary collections of the library.

Social scientists also face difficulties and barriers in their information-seeking, which are common to academic researchers generally. For example, scholars in Starkweather and Wallin's (1999) study reported lack of time to be the main barrier that limited their use of the library's electronic resources. Other barriers reported in this study included unawareness of resources, lack of access to some CD-ROMs, lack of online citation indexes, lack of library instructions, and problems with network connections.

Similarly, a study by Quigley, Peck, Rutter, and Williams (2002) revealed that major obstacles in scholars' information seeking behavior were lack of time, unavailability of needed material, and information retrieval difficulties. In this study, interdisciplinary scholars in particular expressed frustration with the distribution of materials across various library units on campus (e.g., the engineering, medical, and museums libraries), the lack of electronic access to older literature, "grey," and foreign literature, poor control of government and state publications and inadequate coverage by indexes of journals in certain areas (Quigley et al., 2002).

Statement of the Problem

Barriers to information seeking are likely to be closely related to the specific environment in which a scholar works, as well as subject area. The major limitation of previous studies in this area is that they have mainly been conducted in developed, Western societies, where practical barriers to information seeking are likely to be fewer than in the developing world. The current study of information-seeking among social science scholars in Oman will help to redress the balance and provide a better understanding of the barriers and constraints facing scholars in the developing world.

Purpose and Importance of the Study

The purpose of the present study is to investigate barriers affecting information-seeking behaviors of social science scholars at Sultan Qaboos University in Oman. Identification of barriers affecting social science scholars' information-seeking behaviors will provide library managers at Sultan Qaboos University with a better understanding of the way in which they can support social scientists from an administrative perspective. For example, library managers can construct a comprehensive program targeting social science scholars' specific strengths and weaknesses in the searching process. The

present study provides a good foundation for further research on the information needs and information-seeking behaviors among scholars in Oman and other Arab countries. It is the researcher's hope that Sultan Qaboos University will be able to use the results to enhance its current collection of information resources and to streamline information delivery through traditional printed resources, as well as electronic resources (Al-Suqri, 2007).

Research Questions

1. What barriers affect social science scholars' information-seeking behaviors and use of electronic resources at Sultan Qaboos University?
2. How Could Sultan Qaboos University Main Library address these Barriers?

Literature Review

Social scientists in general and developing countries in particular face difficulties and barriers in their information-seeking, which are, to some extent, common to academic researchers generally.

Language Barriers: A major problem often faced by researchers in non-English speaking countries is the relative lack of availability of research material in their native language, or relating to similar social environments. In the social sciences, the majority of published information is in the English language, with material generated from the United States being predominant. Brittain (1984) observed that social science research in North America, the UK and other parts of Western and Eastern Europe was very parochial in the early 1980s. British social scientists, for example, rarely cite other than British and North American literature. As a result, the social science in this part of the world is developing independently, often unaware of developments in the other part of the world.

One of the differences between social scientists and researchers in other disciplines such as the physical sciences is that social scientists often express a preference for

reading research material in their native languages (Romanos de Tiratel, 2000). In Ucak and Kurbanoglu's (1998) study of researchers from four different disciplines in a Turkish University it was found that, unlike scientists and engineers, social scientists and humanities scholars prefer to read texts which had been translated into Turkish, even if they understand the language that they were published in. Other studies have found a general preference among researchers of various disciplines in non-English speaking countries for reading materials in their own language.

Lack of Access to Similar Research: One implication of these findings is that it may be more difficult for social science researchers in non-English speaking developing countries to keep up-to-date with international developments in their specialist areas, or to obtain access to sufficient research material, which has been generated in a non-Western context for background to their own research. Hobohm (1999) has observed that it is sometimes even a national policy in developing countries to prevent foreign researchers from gaining access to national information sources due to a fear of giving away valuable advantages over other countries. This may have a disproportionately negative impact on the social science researchers in other parts of the less-developed world, who potentially stand to gain the most value from having access to research conducted in similar environments to their own. As a result, they may rely more heavily on informal methods of obtaining information, such as talking to professional colleagues and other personal contacts in their subject areas. Francis (2005) commented on the importance of informal communications such as attendance at conferences, meetings, and personal communication with colleagues and peers as a particularly significant information resource in the Caribbean, with linkages between the region and social scientists in North America, a phenomenon which has been

facilitated by technological developments such as the Internet and E-mail.

Budgetary Constraints: In many developing countries, the availability of information and the facilities with which to access it and other research facilities in developing countries are restricted by tight budgetary constraints. A study of forty university libraries in Pakistan, Saeed, Asghar, Anwar, and Ranzam (2000) revealed that only half had Internet access. Even where Internet access was available, budgetary constraints meant that many of the libraries had an insufficient number of computer terminals and skilled staff and experienced frequent technical problems such as connectivity failures. In some countries information-search tools such as electronic search systems may be very limited as a result of similar financial constraints, making information seeking more laborious and time-consuming.

Access to and Availability of Local Data: In developing countries, research is often concerned with investigating or addressing local or national issues and problems. As a result, there is a high level of demand for locally generated data and other research material. For example, Francis' (2005) study of social science faculty at the University of the West Indies found that her study participants regarded local and regional sources of data as particularly important to their work. These include data on, for example, GDP, unemployment rates, consumer prices and population characteristics, produced by national organizations such as the Central Statistical Office and the Central Bank, or regional inter-governmental organizations such as CARICOM and the Caribbean Development Bank. However, the study participants reported that this data was frequently unavailable to them, either because of slippage in the data publication schedule or because the access to it was prevented by data classification laws.

In many developing countries there is less freedom of information than in Western, developed societies. Governments may deliberately restrict access to information or data, particularly in politically unstable countries where there is a risk that it might be used against the government by opposition parties or other groups hostile to the government. In extreme scenarios, social science researchers in some less developed countries work under conditions of oppression or censorship of their research by their governments. All of these conditions will have significant implications for the information-seeking behavior and practices of social science scholars.

Adapting Information Seeking to Local Conditions: Again, the use of informal sources of information is particularly important when access to data through official channels is restricted. In general, there is evidence that social science scholars in the developing world rely very heavily on their networks of contacts (Francis, 2005; Romanos de Tiratel, 2000), although there are exceptions perhaps reflecting local conditions such as the availability of published research material. For example, Lleperuma (2002) found that social scientists in Sri Lanka exhibited a preference for journals and other formal sources of information, while networking was relatively unimportant as an information-seeking behavior. In combination, these various research findings indicate that social science researchers in the developing world exhibit similar preferred patterns of information-seeking behavior to their counterparts in the developed world, but that they have to modify these as a result of local conditions such as the unavailability or restricted access to preferred sources of information.

Impact of Technological Developments: The Internet and the World Wide Web have had a major impact on the information environment within which social science researchers operate, particularly those in developing countries, which have very limited resources

locally in the form of research materials and information databases. Many international, regional and national organizations now post their official data on the Web, and these are often used heavily by social science researchers. For example, the participants in Francis' (2005) study of West Indian social science faculty reported using on-line data from agencies including the Organization of American States (OAS); Economic Commission for Latin America and the Caribbean (ECLAC); and CARICOM regional institutions. Many studies of researchers in developing countries have observed that they tend to be heavy users of the Internet. For example, Siddiqui (2003) found that the majority of users of the Arabian Gulf academic libraries that they studied were making regular use of the Internet and E-mail in their work.

The Use of Libraries: Whereas it has been observed that Western social scientists make relatively little use of library resources, preferring to rely on their personal collections of research material and sources of information (Hobohm, 1999; Romanos de Tiratel, 2002), research indicates that scholars in developing countries are heavy users of library resources.

The majority of the social scientists in Shokeen and Kushik's (2002) Indian study, for example, reported visiting the library daily, while more than half of the social science scholars interviewed by Mooko and Aina (1998) indicated that they were heavily dependent on the University of Botswana Library for their information needs. This may be due to the inability of social scientists in developing countries to build up adequate personal collections of research material due to cost constraints, and in some countries, to less well developed networks of personal contacts, perhaps because there are fewer people working in the same specialist area.

Methodology

Qualitative data are collected using e-mail interviews and face-to-face interviews.

E-mail Interviews

The researcher sent an e-mail message to 200 selected faculty members in which he introduced himself, explained the purpose of the study and invited them to participate in an e-mail interview. The 200 faculty members are selected using a purposive sampling approach in order to ensure that both male and female faculty and representatives of various colleges and departments had the opportunity to participate in the research.

A total of 70 faculty members responded to this initial e-mail, expressing their willingness to participate in the e-mail interview. The interview questions along with the informed consent were subsequently e-mailed to these 70 faculty members on July 1st, 2007, with a request to them to return their responses by e-mail to the researcher within two weeks. After two weeks, only 10 responses had been received from those faculty members who had agreed to participate in the study. Since this was regarded as an inadequate response rate, the researcher sent a reminder to the remaining faculty members extending the period for

response for an additional two weeks. An additional 17 responses were received during this extended response period.

Of the total 27 responses received to the e-mail survey, 6 were excluded from the analysis as they were incomplete, leaving a usable sample of 21. The total useable response rate, based on the 70 e-mail distributed, was therefore 30%, an acceptable level of response in research. The characteristics of respondents to the e-mail interview, by gender, academic rank, and college, and the language in which the interview was completed, are shown in Table 1. Fourteen members (67%) of the sample were male; 7 (33%) were female. Academic rank of the interviewees was: Assistant Professor 52.3% ($n = 11$); Lecturer 47.6% ($n = 10$). The majority ($n = 12$; 57.1%) were members of the College of Arts and Social Sciences; 6 (28.6%) were members of the College of Education; and 3 (14.3%) were members of the College of Commerce and Economics. More than three-quarters (76.2%, $n = 16$) of the interviews were conducted in English; the remaining 23.8% ($n = 5$) were conducted in Arabic.

Table 1 *Demographics of Respondents to E-mail Interview Survey & Interview Language (N=21)*

Participant Number	Gender	Academic Rank	College	Language of Interview
1	Male	Lecturer	Arts & Social Sciences	English
2	Male	Lecturer	Arts & Social Sciences	English
3	Female	Assistant Professor	Arts & Social Sciences	Arabic
4	Male	Assistant Professor	Arts & Social Sciences	English
5	Male	Lecturer	Arts & Social Sciences	English
6	Male	Lecturer	Arts & Social Sciences	English
7	Female	Assistant Professor	Arts & Social Sciences	English
8	Male	Lecturer	Arts & Social Sciences	Arabic
9	Male	Assistant Professor	Arts & Social Sciences	Arabic
10	Male	Assistant Professor	Arts & Social Sciences	English
11	Male	Assistant Professor	Arts & Social Sciences	English

12	Female	Lecturer	Arts & Social Sciences	English
13	Female	Assistant Professor	Commerce & Economics	English
14	Male	Lecturer	Commerce & Economics	English
15	Male	Lecturer	Commerce & Economics	English
16	Male	Assistant Professor	Education	English
17	Female	Lecturer	Education	Arabic
18	Female	Assistant Professor	Education	English
19	Male	Assistant Professor	Education	English
20	Male	Assistant Professor	Education	English
21	Female	Lecturer	Education	Arabic

Face-to-face Interviews

The researcher also invited faculty members to take part in in-depth data collection by means of face-to-face interviews. Initially, 25 faculty members expressed their willingness to participate in face-to-face interviews, and provided telephone or e-mail contact information in order to allow for the interviews to be scheduled. Of the original 25 faculty members who had offered to participate, only 16 responded to the follow-up phone call or e-mail and subsequently completed a face-to-face interview. These interviews were conducted during June and July 2007 in a variety of locations for convenience of the participants: their own offices and homes, the researcher's office and the university main library. The duration of each interview was between 40-50 minutes, and seven of the interviews were conducted in English and nine in the Arabic language. All the interviews were tape recorded with the permission of the interviewee, and they were

each asked to sign the consent form giving the researcher permission to record and use their interview responses for the purpose of the study. All of the interviews were subsequently transcribed and those conducted in Arabic were translated by two qualified translators. The transcripts were then e-mailed to the interviewees for their review, and these were all returned without modification by the interviewees.

The characteristics of the 16 face-to-face interview respondents are shown in Table 2. Eleven (68.8%) were male; 5 (31.2%) were female. Twelve (75%) were Assistant Professors; 4 (25%) were Lecturers. Colleges were represented as follows: 7 (43.8%) Arts & Social Sciences; 4 (25%) Commerce & Economics; 4 (25%) Education; and 1 (6.2%) Law. The duration of the interviews ranged from 40 – 50 minutes; more than half (n = 9) were conducted in Arabic, with the remaining 7 being conducted in English.

Table 2 *Characteristics of Face-to-face Interview Respondents & Interview Language/Duration (in Minutes) (N=16)*

Participant Number	Gender	Academic Rank	College	Language	Duration
1	Male	Assistant Professor	Arts & Social Sciences	Arabic	50
2	Male	Assistant Professor	Arts & Social Sciences	Arabic	40
3	Female	Assistant Professor	Arts & Social Sciences	Arabic	50
4	Male	Assistant Professor	Arts & Social Sciences	English	45
5	Male	Assistant Professor	Arts & Social Sciences	English	40
6	Male	Associate Professor	Arts & Social Sciences	English	50

Participant Number	Gender	Academic Rank	College	Language	Duration
7	Female	Assistant Professor	Arts & Social Sciences	English	45
8	Female	Lecturer	Commerce & Economics	Arabic	40
9	Male	Assistant Professor	Commerce & Economics	Arabic	50
10	Male	Assistant Professor	Commerce & Economics	English	50
11	Male	Assistant Professor	Economics	English	45
12	Female	Lecturer	Education	Arabic	45
13	Female	Assistant Professor	Education	English	45
14	Male	Lecturer	Education	Arabic	40
15	Male	Lecturer	Education	Arabic	50
16	Male	Assistant Professor	Law	Arabic	40

Coding and Analysis Procedures

Content analysis technique was used to analyze the qualitative data generated from the email and face-to-face interviews. Initially, the responses were examined and a preliminary set of themes created, which were based on the main research questions and the various sub-themes of interest to the study, as defined in the research instrument. Then, the qualitative responses were re-examined and coded according to the preliminary themes, and additional themes were added as necessary (Al-Suqri, 2011, p. 6).

Findings

Several different questions were asked in order to provide an understanding of whether the respondents face library-related barriers to information seeking. Views on the adequacy of the University library resources were investigated, as well as levels of comfort and competency in the use of these resources and perceived need for training or assistance. Respondents' perceptions of students' information seeking proficiency were also

investigated. Finally, research participants were asked directly about the specific library- and non-library related barriers to information seeking that they experienced in their work and for their views on what might be done to address these barriers.

Perceived Adequacy of Library Resources

There was a divergence in views regarding the adequacy of library resources, and this did not seem to be related to particular areas of specialism; a variety of views were expressed by respondents from each of the academic departments covered in the study. On the one hand, a number of respondents expressed satisfaction, in general terms, with the resources available, while at the same time recognizing that there was room for improvement, particularly in terms of expanding the range of print or electronic resources.

I believe the library is the first place to look for information. Why? Because it contains most of what you are looking for, textbooks, journals both print and

electronic, references and so on; and even if you do not find what you are looking for in the library you can use the interlibrary loan that the library provides for its users. In other words, the library still and will still be the first place for all users. (Male, Assistant Professor, Department of English)

To some extent yes, but we are still looking for more up to date print resources especially books. We need more books in English. (Female, Assistant Professor, Department of Psychology and Social Work)

On the other hand, other respondents from a range of academic departments and specialist areas were clearly very dissatisfied with the available library resources. Many expressed the view that the range needed to be expanded and updated, either in relation to specific specialist areas or in terms of providing more resources in either the English language or the Arabic language.

It is not sufficient in relation to my area and this is really a sad thing. It is important to increase all types of information resources, the most up-to-date and the most recent resources in my area and in other areas. (Male, Assistant Professor, Department of English)

We always have to search the Internet and e-mail friends from other countries to provide us with such resources. (Male, Assistant Professor, Department of Geography)

One of the main sources of dissatisfaction which was mentioned by a number of respondents was the lack of full-text resources which are accessible via the library, while others, particularly in the Department of Economy and Finance, noted the need for the library to expand its collection of other specified types of resources, such as social data, more Arabic resources from within Oman, and international conference papers.

When your resources are electronic you should not have any problem; you just download or copy and paste and then you get the source you want. But, if the e-journal or database does not contain the full text of the article, then here is the problem. In this case you either have to pay for this article, and it is very expensive, or order this article through interlibrary loan and it takes a long time to get. (Male, Assistant Professor, Department of Library and Information Science)

Level of Comfort in Using Library Resources

All respondents confirmed that they were comfortable using the library resources, although some felt that training or brochures would be helpful, either to increase their own level of proficiency or to provide assistance to those who are less competent in using the library. Although a considerable number of participants in this study were library and information specialists, who can be expected to have a high level of competence in using library resources, similar views were expressed by participants from other specialist areas.

I feel comfortable using both print and electronic library resources. And, I do not have any difficulties or any need for training, but this training and brochures would help those who are very weak in using the library resources especially the electronic ones. (Male, Assistant Professor, Department of Library and Information Science)

I feel comfortable, but more training and brochures would make things even better. (Male, Assistant Professor, Department of communication)

Some respondents from the Library and Information Science area highlighted the fact that faculty and students needed to be made more aware of the resources that are available in the library and how to use these and

suggested specific actions that might be taken by the library to increase their awareness of and ability to use its information sources.

There is a serious need for organizing training sessions about the way to deal with reference books, for example, because such reference books, including dictionaries, encyclopedias, or directories, are prepared and organized using a very special system. The researcher should get to know their titles, the nature of the information they contain, and of course the way they are classified so that s/he can benefit from them. For that reason I see that training is necessary. Flyers and brochures are also essential and are considered a kind of Current Awareness such as a book jacket which helps us distinguish between references. (Female, Assistant Professor, Department of Library and Information Science)

Library-Related Barriers to Information-Seeking

A small number of respondents indicated that they were not aware of any specific library-related barriers to their research.

Actually I have no problem locating any resources that I need from the library. (Male, Lecturer, Department of English)

The vast majority of research participants, however, cited at least one specific library-related barrier to effective information-seeking which had an impact on their work. Three main types of barriers could be identified from their responses: inadequate resources; problems with the organization of library resources; and information technology limitations.

Inadequate resources: As noted in the previous section, many respondents felt that the library provides an inadequate level of resources to meet their needs. The lack of full-text articles was regarded a major problem by numerous research participants and was cited

as a specific library-related barrier to effective research, as was the ordering process for items not available within the library.

Most of the electronic resources available at the library do not provide the full text of the articles, so the library should subscribe to these resources in full. (Male, Lecturer, Department of Sociology & Social Work)

Organization of library resources: Another significant barrier to effective information searching mentioned by several respondents related to the poor organization of resources within the library and the frequent discovery, in particular, that items they were looking for were missing from the shelves:

I always have a hard time locating some resources, because they are not in their places, so our library needs better organizing. (Female, Assistant Professor, Department of English)

One information science specialist noted that although the library was in the process of updating and expanding its range of resources, these were not reaching the shelves quickly enough due to staffing and budgetary limitations which affected the preparation and cataloguing process:

Most of the information resources in the library are out of date. They have not been updated, though the library is in the updating process; but the issue is in the preparation. So, you find that all the recent sources are still in the storage. The personnel working on their preparation, indexing, classification, and placement on the shelves; is insufficient. Therefore, they have a great deal of work to do. The library has a good budget for its sources, but the problem is that the minute such sources get into the shelves, they become out of date. (Male, Assistant Professor, Department of Library and Information Science)

Information technology limitations: The lack of adequate computing facilities in the library was also cited as a barrier to effective information-seeking by a significant number of respondents. The lack of a computer lab was mentioned as a drawback, as were the lack of an adequate Internet connection provided and other technological limitations.

I mostly use on-line journals and the network (Internet) is sometimes down. So, it might be a good idea to have a separate server for the library (if there is not one already there). (Male, Assistant Professor, Department of Economics & Finance)

One respondent cited as a barrier to research the fact that the library's electronic resources could not be accessed from other locations.

The electronic resources are still not accessible from the outside. I hope the library will consider the hundreds of users who always need to access the library from home or abroad. (Male, Lecturer, Department of Library and Information Science)

Non Library-Related Barriers to Information-Seeking: Slow or otherwise inadequate Internet connections were one of three main non-library related categories of barrier to information-seeking that were identified by respondents, along with a lack of adequate time for research and language/cultural-related factors.

Numerous research participants commented on various ways in which poor access to the Internet, either in terms of speed or location, has a negative impact on their ability to conduct research. This was reported to result in feelings of frustration and to have the effect, in some cases, of causing them to give up on searches.

The Internet is slow and results in making the researcher feel very bored and sometimes makes her/him abandon her/his research and leave it incomplete. (Male, Assistant Professor, Department of Economy & Finance)

The other most commonly cited non-library related barrier to information seeking was the lack of sufficient time for research due to respondents' teaching commitments.

The time for conducting or completing research is missing. We spend most of our time in teaching and supervising the students, we do not have time for writing. (Male, Assistant Professor, Department of Library and Information Science)

Language and cultural-related factors were also cited as barriers to information seeking. One respondent noted the difficulty that sources in his area of specialty (Library and Information Science) were published in English, and, since they were weak in this language, there was often a need to have these translated.

Most of the literature in our field [is] in the English language and as I mentioned earlier, my English is very poor, so this is a serious barrier. Most of the time, I have to ask a friend to translate the texts that I need to quote or cite. (Male, Assistant Professor, Department of Library and Information Science)

Another research participant, a specialist in English literature, commented on cultural issues that restricted the confidence of Omanis in producing research publications, leading them to feel they could not do so unless they had first accumulated a vast amount of information on the subject. This then acted as a barrier to information seeking as they would not even start the process of producing a research paper, seeing it as too daunting a task.

I always have in my mind that I should not try unless I know everything. Of course you cannot know everything. Those who write and are very famous in their field, I do not think they know everything even in their own specializations. So, I think our culture and society installs in us the idea of

accumulating a large quantity of information and that becomes a social pressure for us, instead of producing something you want to accumulate information for other sources ... I think most Omanis are facing this problem. We may not feel it, we may not concuss of this, but I think it is there, it affects us ... We may think that we cannot produce something like a person in the United States. I think we lack that confidence. I think we have to be creative and produce information not accumulating information. (Male, Assistant Professor, Department of English).

How Barriers Might be Addressed: Respondents' suggestions as to how the University main library might improve its services to users and thus overcome various barriers to information seeking fell into three main categories: improving and expanding library resources, providing better Information Technology facilities, and providing more support and training to users. Additionally, a number of other specific suggestions for improving various aspects of library services were offered.

Improving and expanding information resources: Virtually all the study participants made suggestions for ways in which the library's collection of resources could be improved in order to improve the information-seeking experience. Specifically, many respondents noted that the library should subscribe to more electronic resources containing full-text articles, although respondents also indicated a demand for more print resources, particularly more up-to-date texts in both English and Arabic.

Sultan Qaboos University library should subscribe to full text databases so the user can find what he looks for easily and without paying anything. Today, electronic resources are very important, provide a wide range of articles and they are current, so more

attention should be made in this area of information resources. (Male, Assistant Professor, Department of English)

Improving information technology systems: Numerous respondents expressed a desire for the University to provide a faster Internet connection since this would improve their ability to search efficiently for information online and enhance their ability to download articles from online sources. In addition, respondents commented on the need for the University to update its technology so that more users could be online at the same time, and for a computer lab to be made available within the University's main library.

The library, like most libraries in the world, has to have a computer lab and Internet service. (Male, Assistant Professor, Department of English)

Internet speed is very important since downloading an article, for example, takes a long time. (Male, Assistant Professor, Department of Economy and Finance)

Support and training: Even though the majority of research participants had indicated that they were comfortable using the library resources, when asked about ways in which the library could improve its services, many indicated that better training and more information about the resources available would be beneficial to them and other users. Specific suggestions for what these might consist of included training programs conducted every semester, brochures, and flyers.

To make information seeking more enjoyable and satisfying, Sultan Qaboos University should provide some courses for all users, I think the library and the Information Technology Center should work together to provide such courses. I myself need such a course to improve my skill in using the electronic resources and I think many faculty

members and students need these courses. (Male, Assistant Professor, Department of English).

One respondent from the Department of Library and Information Science explained the pressing need for training for library users in terms of the complex organization of library resources, which can act as a barrier to locating relevant information for inexperienced users.

The organization of some of the entries is by the publisher, some others by subject, some others are organized chronologically and others' organization is made of different points. So a novice researcher will be incapable of getting to the reference and extracting the piece of information from it, and this becomes even more cumbersome when the library specialist is busy, leading therefore to the missing of all improvement opportunities. What I suggest in this case is that the main library organizes little workshops for all specialties to enable people to know their references, how to deal with other colleges and faculty in terms of references, etc. (Male, Assistant Professor, Department of Library and Information Science)

A number of respondents suggested that the library should involve the user community more in the development of its collection, or should improve the process by which this presently takes place, for example, by having a more clearly-defined selection process for resources.

Sultan Qaboos University library is working in developing and improving its collection. It involves the faculty members from different colleges in the clear selection process ... But to make all this happen we need a good selection policy. Up to now we do not have a clear policy, so the library managers should work on this policy

very soon in order to be able to improve the library collection. (Male, Assistant Professor, Department of Library and Information Science)

Update the important textbooks with more interaction with academic departments. (Male, Assistant Professor, Department of Economics & Finance)

Other types of additional support respondents believed could be usefully provided by the library included the electronic dissemination of information about newly acquired resources and the development of specialist support to researchers in different academic areas.

The main library should provide this good service on the Internet by putting the most recent books that have arrived into the library, even though there are not so many especially, since most of them are still in the storage. (Male, Assistant Professor, Department of Geography)

Finally, other specific suggestions for ways in which the library could improve its services to users included speeding up the inter-library loan service and increasing the physical area of the library to enable it to accommodate more print resources and information technology facilities.

Discussion

Social science scholars at Sultan Qaboos University in Oman face a number of specific challenges and barriers in their information-seeking which are to some extent common to scholars in general. This study revealed that social scientists at SQU face two different types of challenges and barriers:

1. Library-related barriers:

- a. Inadequate library resources
- b. Problems with the organization of library resources
- c. Information technology limitations
- d. Lack of adequate training

2. Non library-related barriers:

- e. Inadequate Internet connections
- f. Lack of adequate time for research
- g. Language/cultural related barriers

Several previous studies conducted in developed, Western societies, and in developing, Eastern societies, have reported the same barriers to information-seeking of social science scholars (Brittain, 1970; Ucak & Kurbanoglu, 1998; Meho, 2001; Lee, 2005, Badu & Markwei, 2005; Francis, 2005).

Inadequate information resources were regarded as a major barrier by scholars in general. In his study of information-seeking behavior of social science faculty studying stateless nations, Meho (2001) noted that social scientists studying stateless nations had a difficult time finding the necessary materials in their libraries. Meho (2001) writes, "A closer look at the academic institutions at [which] the study participants teach showed that the majority of these institutions do not have specific programs or departments that are geared towards the study of stateless nations. Therefore, it is very likely that most libraries would hesitate to acquire extensive materials on topics that are not part of the academic make up of the universities or colleges they serve" (p. 119).

The language barrier was also considered a very important barrier by social science scholars. This barrier, according to Brittain (1970), caused social scientists to ignore the world's literature and draw far more heavily upon resources written in their own language. Ucak and Kurbanoglu (1998) also support this finding in their study of information needs and information-seeking behavior of scholars at a Turkish university. They concluded that social science scholars pay great attention to resources translated into Turkish even though they can read and understand these resources in their original languages. One participant in Aber's (2005) study reported that she rarely visits the academic library because of the time

constraints and the unavailability of adequate information resources.

The study also revealed that in order to improve its services and therefore overcome various barriers to information seeking; the SQU main library should improve and expand its resources, provide better Information Technology facilities, and provide more support and training to users. Various studies have indicated the role of library in overcome such barriers. From example, research (Mooko & Aina, 1998; Ramanos de Tiratel, 2002; Shokeen & Kusik) indicates that scholars in developing countries are heavy users of library resources; therefore, libraries should expand its resources by subscribing to more full-text electronic resources.

Conclusion

The findings of this study are likely to be of major importance in ensuring that the future development of such services addresses such barriers and improves the information-seeking environment. These include inadequate provision of both printed and electronic resources, a lack of non-English language resources, and poor availability of Internet access. By providing research-based data on the preferences of social science scholars for particular types of information resources, and the frequency of use, the study can help libraries operate more cost-efficiently by reducing less frequently used sources of information and methods of information retrieval, and by providing sources and materials tailored to the needs and information-seeking practices of the users. Moreover, the information from this study provides library managers with a better understanding of the way in which they can support social science scholars from an administrative perspective, by developing and delivering training in the use of library and information resources and technology targeted at their particular needs.

1. Aber, S.W. (2005), *Information needs and behaviors of geoscience*

References

- education: A grounded theory study*, Thesis (PhD), Emporia State University.
2. Al-Suqri, M.N. (2007), *Information needs and seeking behavior of social science scholars at Sultan Qaboos University in Oman: A mixed-method approach*, Thesis (PhD), Emporia State University.
 3. Al-Suqri, M. N. (2011), "Information-seeking behavior of social science scholars in developing countries: A proposed model", *The International Information & Library Review*, Vol. 43, pp.1-14.
 4. Badu, E.E., and Markwei, E.D. (2005). Internet Awareness and Use in the University of Ghana. *Information Development*, Vol. 21 No. 4, pp. 260-268.
 5. Brittain, J. M. (1970), *Information and its Users: A Review with Special Reference to the Social Science*, Wiley Inter-science, New York, NY.
 6. Brittain, J.M. (1984), "Internationality of the Social Sciences: Implications for information transfer", *Journal of the American Society for Information Science*, Vol. 35 No. 1, pp. 11-18.
 7. Broadus, R.N. (1971), "The literature of the social sciences: A survey of citation studies", *International Social Sciences Journal*, Vol. 23, pp. 236-243.
 8. Francis, H. (2005), "The information-seeking behavior of social science faculty at the University of the West Indies, St. Augustine Campus", *Journal of Academic Librarianship*, Vol. 31 No. 5, pp. 67-72.
 9. Hobohm, H. (1999), "Social science information & documentation: Time for a state of the art?", *INSPEL*, Vol. 3, pp. 123-130.
 10. Lee, H. (2005), "The concept of collection from the user's perspective", *Library Quarterly*, Vol. 75 No. 1, pp. 67-85.
 11. Lleperuma, S. (2002), "Information gathering behavior of arts scholars in Sri Lankan Universities: A critical evaluation", *Collection Building*, Vol. 21 No. 1, pp. 22-31.
 12. Meho, L. I. (2001), *The information-seeking behavior of social science faculty studying stateless nations*, Thesis (PhD), University of North Carolina.
 13. Mooko, N.P., and Aina, L.O. (1998), "The use of government publications: The case of social scientists at the University of Botswana", *Journal of Government Information*, Vol. 25 No. 4, pp. 359-365.
 14. Murphy, J. (2003), "Information-seeking habits of environmental scientists: A study of interdisciplinary scientists at the Environmental Protection Agency in Research Triangle Park, North Carolina", *Issues in Science and Technology Librarianship*, Vol. 38.
 15. Palmer, C.L. (1996), "Information work at the boundaries of science: Linking library services to research practices", *Library Trends* Vol. 45 No. 2, pp. 165-191.
 16. Patitungkho, K. and Deshpande, N.J. (2005), "Information-seeking behaviour of faculty members of Rajabhat Universities in Bangkok", *Webology*, Vol. 2 No. 4, Available from <http://www.webology.ir/2005/v2n4/a20.html> [Accessed 11 March 2006]
 17. Quigley, J., Peck, D.R., Rutter, S. and Williams, E. (2002), "Making choices: Factors in the selection of information resources among science faculty at the University of Michigan", *Issues in Science and Technology Librarianship*, Vol. 34.

18. Romanos de Tiratel, S. (2000), "Accessing information use by humanists and social scientists: A study at the Universidad de Buenos Aires, Argentina", *Journal of Academic Librarianship*, Vol. 26, pp. 346–354.
 19. Saeed, H., Asghar, M., Anwar, M. and Ranzam, M. (2000), "Internet use in university libraries of Pakistan", *Online Information Review*, Vol. 24 No. 2, pp. 154-160.
 20. Shokeen, A. and Kushik, S.K. (2002), "Information-seeking behaviour of social scientists of Haryana universities", *Library Herald*, Vol. 40 No. 1, pp. 8-11.
 21. Siddiqui, M.A. (2003), "Adoption of the Internet for resource sharing by the Gulf academic libraries", *Electronic Library*, Vol. 21 No. 1, pp. 56-62.
 22. Starkweather, W.M. and Wallin, C. (1999), "Faculty response to library technology: Insights on attitudes", *Library Trends*, Vol. 47 No. 4, pp. 640-812.
 23. Ucak, N. O. & Kurbanoglu, S. S. (1998), "Information need and information seeking behavior of scholars at a Turkish university", In *64th IFLA General Conference Proceedings, 1998, Amsterdam*.
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