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The Role of Socio-economic Status in Information Seeking Behavior Based on the Knowledge Gap Theory: A Case Study of Qom University, Iran

Sokaineh Falsafin — Ph.D. Candidate in Knowledge and Information Science, Department of literature, humanities and Social Science, Science and Research Branch, Islamic Azad University, Tehran, Iran

Dariush Matlabi * — Associate Professor, Department of Educaton, Yadegar-e-Imam Khomeini (RAH) Shahre Rey Branch, Islamic Azad University, Tehran, Iran

Samaneh Khavidaki — Ph.D. in Knowledge and Information Retrieval, Department of Information Science, Alzahra University, Tehran, Iran

Zakkie Arabsheibani — M.A in Knowledge and Information Science, University of Qom,Qom, Iran

Abstract

Purpose: Economic and social status play a prominent role in many human activities and their function is accentuated in the theory of the knowledge gap. According to the idea, the knowledge of the people with higher socio-economic status increases compared to those with lower socio-economic status. The purpose of this study was to determine the role of socio-economic status (based on knowledge gap theory) in the information-seeking behavior of fellow members of staff at Qom University.

Method: The study was an applied research in terms of purpose and in terms of strategy and data collection was correlational. The population consisted of

* Corresponding Author: dariushmatlabi@iausr.ac.ir

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761 university employees. Based on Cochran's formula the sample of the study included 255 employees. A researcher-made questionnaire was used to collect data. Spearman and X^2 statistical tests were applied to analyze data.
Findings: People who have a higher socio-economic status (with higher employment, income and education levels) are more motivated to search and obtain information, and there is a significant relationship between the components of individuals' socio-economic status and the type of the used information resources. Socio-economic status affects the criteria for evaluating information resources, and people with higher rate use various evaluation criteria while assessing the information. People with socio-economic status use various and different channels to obtain information, thus, there is a positive and significant relationship between the use of search engines and meta-search engines, internal and external databases, conference papers, library RSS, specialized social networks, consultation with librarians and technical blogs, and their socio-economic status.
Conclusion: The social and economic status explains and predicts the information-seeking behavior of the staff and the results confirmed the theory of knowledge gap. Prediction of the facilities required for searching and seeking information in organizations and making them accessible to all human resources can help provide fair access to information for the better part of society and reduce the knowledge gap.

Keywords: Information-Seeking Behavior, Socio-economic Status, Knowledge Gap Theory, Qom University.

Introduction

It is clear that humans have basic needs and seek information to meet their needs . Thus, information needs contribute to the emergence of information-seeking behaviors (Lester & Koehler, 2010). Information-seeking behavior is defined as the purposeful search for information that is done to serve a purpose. Understanding the information seeking behavior plays an essential role in providing qualitative services to users and designing appropriate information systems (Nokarizi & Davarpanah, 2006). Therefore, this field has attracted the attention of many information researchers and concentrated on several models such as those of Wilson, Ellis, Colthaw, Belkin, and so on. Factually, different groups of users are studied based on the models.

An investigation of this topic at Google Scholar database showed that in the last ten years, over 1000 scientific articles in English have been indexed at this database, of which more than 80 articles have been published in Iran. Such a volume of articles in this field shows the importance of the subject; The factors relating to information seeking behavior have been previously studied, and yet, the existing knowledge in this field is still minimal especially since what we do not know for certain, simply outweighs what we do know.

In the present age, information is of great value, and access to information empowers people in many ways; but access to information, like other types of wealth, is not somewhat distributed to all people, and is affected by various factors including socio-economic status. The theory of knowledge gap pays attention to the socio-economic status of individuals, it suggests that if information flows in a social system, groups with higher economic and social leverage have more access to information compared to the groups with lower economic and social level (Tichenor et al., 1970). According to the theory of knowledge gap, increasing information published in the society leads to the formation of a knowledge gap between people of higher and lower social classes and it continues to change the economic situation of these two classes (Tran, 2013). In other words, people of low socio-economic status and people with high socio-economic status both obtain knowledge, but the latter obtain more information. This means the relative knowledge gap between affluent people and people with less welfare will continually increase (Surin & Tankard, 2005).

The economic and social status include three factors: education

(education level), income, and occupation. The university is one of the most important centers in which we can see a wide range of employees in terms of the relevant indicators due to the variety of occupations, level of their education, and finally the income, and it can be a very suitable community for the present study, with focus on Qom University which is is one of Iranian state universities.

A review of studies conducted in the field of information seeking behavior shows that in most studies, three indicators related to economic and social status, especially education level have been considered only in the demographic characteristics section, but have not been regarded as factors affecting information seeking behavior. Therefore, this study aims to determine the role of socio-economic status (based on the theory of knowledge gap) in the information seeking behavior of fellow members of staff at Qom University and to test the following hypotheses:

- There is a significant relationship between the economic and social status of human resources and their motivation for seeking and obtaining information.
- There is a significant relationship between economic and social status and the type of information resources used by the human resources.
- There is a significant relationship between economic and social status and criteria for measuring and selecting information resources used by human resources.
- There is a significant relationship between economic and social status and information access channels of human resources.

Theoretical foundations and literature

Social stratification refers to the division of society into layers or strata. When talking about social stratification, we draw attention to the social inequalities among individuals in organizations. Stratification by gender and age is found in all communities. Stratification is discerned in terms of wealth, assets, and access to materialistic goods and cultural products in older societies, and in today's industrialized countries (Giddens, 2006). Koen (1993) considers social class as a part of society that is different from other parts of that society in terms of having shared values, certain social status, collective activities, wealth and other personal possessions, or so to speak, effects, and also etiquette.

There are three related indicators in the practical definition of "social class": level of education, income, and occupation (Mahdizadeh, 2012). The theory of knowledge gap is among the approaches that pay attention to the economic and social status of individuals.

According to the knowledge gap theory, those with good foresight will seek more information, and this case will create a more significant gap between those who have a lot of information and those who need information (Dehghan, 1997). Tichenor, Donohue, and Olien firstly introduced the knowledge gap theory in 1970 in a paper entitled "The Stream of Mass Media and Differential Growth". It defines the concept of gap as follows: "Along with the increase in publishing the information in society by the mass media, those parts of society with a higher socio-economic status are more inclined to receive information in the shortest time compared to those with a lower socio-economic status". Thus, the knowledge gap increases between these two sections (Tichenor, Donohue, & Olien, 1970). The knowledge gap between the upper and lower classes of society has widened simultaneously with the widespread publishing of information from various mass media in community. Parts of the population with a higher socio-economic status obtain this information faster than the parts with a lower socio-economic status, so that the knowledge gap between these parts continually widens rather than narrows. In subsequent studies, Donohue, Tichenor, and Olien (1975) examined some conditions under which the knowledge gap may be reduced or eliminated and found the following:

- The knowledge gap is likely to narrow when there is a conflict of interest;
- The knowledge gap is more likely to widen in pluralistic communities, where there are multiple sources of information, than in homogeneous communities, where there are common informal channels of communication;
- The knowledge gap is likely to narrow when the subject at hand has an immediate and robust local effect.
- The main hypothesis of the knowledge gap is that when the information drop increases in a social system, sections of the population with a higher socio-economic status get this information faster than sections with a lower level.

On the other hand, Wilson believes that it is the social context and

situation that create the need for information and restrict the individual to use specific available resources (Nowruzi Chakoli, 2006, pp. 151 - 152). People perform their actions in different ways to meet their information needs. However, the important thing is that everything is purposeful and the person goes through a logical process to solve the problem and meet their information needs when searching for information. Each person acts according to a condition or pattern in obtaining news based on their necessities, which may be different from the methods that other people use to get information.

Various researchers have proposed ideas and theories mentioned above after examining these patterns. In addition, people's behaviors have changed, and the range of performance and the variety of behaviors used in the new systems has become relatively more comprehensive with new environments for searching information (Davarpanah, 2007). A research into knowledge gap shows that on complex subjects such as information-seeking behaviors, affluent people get their information from a specific medium (newspapers, internet, social networks, etc.) while non-affluent people get information from TV advertisements. These findings suggest that information administrators need to conduct audience research, and they often benefit from selecting different media to access different segments of the audience. Finally, as Brenda Dervin points out, information campaigns may be initiated according to the needs of the potential information users (Dehghan, 1997).

A wide range of researchers has paid attention to the economic and social status of individuals, and considered the various theories proposed by experts such as Marx, Weber, Bourdieu, Domazie, etc. A review of the studies shows that the relevant studies can be categorized into two groups as follows:

The first group is researches that have acted from the beginning based on the knowledge gap theory. The study of Afshar Kohan, Hosseini, and Naderifar (2011) shows direct and strong relationships between the socio-economic status of families and the level of students' familiarity with various Internet facilities, which confirms the knowledge gap existing between upper and lower class members and its intensification by the Internet. Affluent students are more familiar with English and various Internet facilities and have more access to permanent and high-speed Internet due to their broader public information, which provides them with more favorable conditions for

creative usage of this tool and obtaining helpful information. The results of the research of Ghasemi and Omranian (2012) showed that there is no significant relationship between the use of written media, the press, and students' legal knowledge, and the hypothesis of the knowledge gap was rejected based on the fact that people with a high socio-economic status have more information compared to the people with low socio-economic status due to their more usage of written media. Kia (2016) showed that as no class indicators such as education and income have a significant relationship with the rate of web reading as a result, the knowledge gap theory was rejected in this study.

Roustaei, Pourmohammadi, and Ranjbarnia (2019) showed that the variables of digital gap, information skills along with the variables of economic status and geographical location have the most significant impact on sustainable development and wealthy citizens in terms of their access to information technology and communication services have better opportunities and conditions than low-income citizens which makes them superior in different areas. The results of Kim's study (2008), which supports the knowledge gap theory, show a significant gap in political knowledge between respondents with higher and lower education, and more importantly, there is an even more significant gap between newspaper readers and web users. Thus, the performance of newspapers and the Internet may lead to more significant gaps among social classes. Niederdeppe (2008) showed that educated people search information more than uneducated ones by covering news about events in a research paper published with awareness about the knowledge gap hypothesis for drawing the cancer information searching model for the cancer news.

Anduiza, Gallego, and Jorba (2009) showed that the political knowledge of the Internet regular users is more excellent than those who do not use the Internet, and highly educated Internet users' learning is better than that of users with low education. They concluded that the political knowledge gap in schooling might widen with the advent of the new technologies. Chang et al. (2018) examined the role of scientific communication in enhancing three different forms of scientific knowledge (actual, superficial, and mental knowledge) in a study based on South Korean national survey data. The results showed that television acts as "the knowledge leveler", reduces the gap between highly educated South Koreans and less educated ones. Online reading

of newspapers shows a positive relationship with all three criteria of scientific knowledge, and despite the effect of knowledge leveler through watching TV, online reading of newspapers increases the knowledge gap. Hussain, Ghani, Minhas, Irfan & Rehman, (2019) showed that the majority of students suffer from information overload, and the main reason is the presence of a lot of irrelevant information about internet and purposeful and skillful patterns of using internet have a weak positive correlation with information overload. Students' socioeconomic status have a fragile negative relationship with information overload, which means that socio-economic status has not affected information overload among students. Vite (2020) showed that there is still the knowledge gap about international communication issues among people with different social and economic status, as the distribution of devices / smart cellphones' services and satellite services is unequal among members of the population.

The second group consist of studies that are not based on knowledge gap theory, but include data resulted from studies conducted on the relationship between all or some variables of social and economic status with media usage or public knowledge. Naebi, Dehghan, and Moeidfar (2008) showed that the rate of using media is higher among those with higher education than those with lower education. People with higher education are more likely to use the media for educational and scientific purposes than those with lower education. The effect of television on the development of new trends is not the same at different levels of education, and using the television is effective on the new trends among people with low education. However, there is no such relationship between those with higher education.

Afshar Kohan and Sharafi (2016) indicated that citizens who differ in socio-economic status are also different in using mass media and perception of the need for guidance in health-related behavior. In other words, people with higher socio-economic status feel the need for more guidance on health-related behavior, and the frequency of their media usage is higher. People with higher socio-economic status have more knowledge about a healthy lifestyle. Findings of the National Plans Office of the Institute of Culture, Arts, Communication, and the Social Monitoring Center (2016) showed that there is a significant positive relationship between education level and Internet access and usage, as well as reading books; people with higher education use the internet or

read books more than people with lower education. Bahadori Khosroshahi and Barghi (2018) showed a positive and significant relationship between social identity and media usage among adolescents. The results of the third phase of the National Survey of Cultural Goods Consumption (2020) showed that there is a relationship between the social and economic status of individuals and the level of their access to information resources and tools and the higher the socio-economic status of individuals are, the larger number of books, newspapers, and magazines, can be expected to have been read and studied by them.

The amount of using the Internet is related to social and economic status and it increases with the acceleration of education level, vocational status, and economic status. There is a difference between the education level, vocational status and economic status of individuals and their mass media usage. In fact, people with primary and secondary education listen to Iranian radio stations more than the illiterate and people with relatively low vocational status listen to Iranian radio stations more than highly dignified people and using Iranian television has decreased with increase of educational, vocational and economic status. Bukodi (2007) shows that social status, education and income level are the three basic pillars of social mobility in reading. People's reading behavior is highly dependent on their parents' social status and individuals' social status has a significant effect on reading, education, income, and social class. Chan and GoldTrope (2007) showed in a study on cultural consumption participation in Canada that household income in Canada is an important factor in cultural consumption and the education level is significant. People with educated parents (academic education) are more concerned with cultural consumption and their worldly status and residence area are effective in this regard.

In a study done using the Institute's Media Consumer Surveys, Tran (2013) showed differences between socio-economic status and public knowledge. The socio-economic situation strongly influences the choice of different population groups to use traditional and online information sources . The educated group mostly search the news through different channels and use new technologies to receive news. Sin and Lee (2015) showed a significant difference in satisfaction, based on income levels and frequency of using four tested sources (Internet, social media, electronic public library resources, and printed

public library resources). According to the results, people with lower social and economic status who use the Internet and social media at a medium frequency are less satisfied. Results of a study by Ajilore, Ambassador-Brikins and Onyenankeya (2017) showed that the socio-economic status of women has no significant effect on their knowledge of six-month exclusive breastfeeding; the education level of respondents does not have a significant effect on their knowledge of six-month exclusive breastfeeding, and all women with different economic and social status are well aware of this issue. Koser (2017) showed that the knowledge level of participants about household waste management depends more on their economic conditions, education level, and services. This study proves that the media do not play an important role in public knowledge.

Review of the studies shows that no study has examined relationship between economic and social status of individuals with their information-seeking behaviors based on the theory of knowledge gap. The present study is different and innovative in terms of subject matter, approaches and tools used in the research.

Method

The present study is applied in terms of purpose and correlational in terms of method and data collection. The correlation method is really resourceful when the researcher has information from two or more groups and wants to measure the connection between them. The most critical application of correlation is to study the change rate in one or more factors due to changes in one or more elements (Mansoorian, 2014). The study population involved 761 people based on the information received from Qom University. Two hundred fifty-five people were selected as a sample using Cochran's formula by classified random sampling method as described in Table 1, and a researcher-made questionnaire was used to collect data.

Table 1. Frequency distribution of the population and the studied sample

Human resources classes	The whole university complex	Number of selected samples
Faculty members	277	93
Educational staff	365	122
Service staff	119	40
Total	761	255

Research articles related to information-seeking behavior were studied to prepare a questionnaire. Finally, the four following aspects were determined: 1) information search goals and motivations, 2) information resources, 3) criteria for measuring and selecting information sources, and 4) information access channels. The first part of the questionnaire with seven questions was allocated to the assessment of the socio-economic status and three criteria in the knowledge gap theory - namely occupation, education and income and the second part with 49 questions was assigned to measuring the features of information-seeking behavior in the four identified aspects. The questionnaire was examined through formal and content validity methods. In the content validity, the questionnaire along with the research purposes was presented to the information science professors and they were asked to study the components and items, and propose their suggestions about the comprehensiveness of the components and items. Finally, two things were added to the information resources component, one to the measurement criteria and information source selection component, and second thing to the element of information access channels. No changes were made to the details. For the formal validity of the questionnaire, it was given to a group similar to the main population and they were asked to write down what they had comprehended about questions. The provided notes were reviewed by the research team and the cases with ambiguity or misunderstanding were clarified.

The questionnaire was distributed among 30 people of the population, including service staff, educational staff, and fellow members of staff after assessing the validity of the questionnaire to determine its reliability. The reliability was measured using Cronbach's alpha test, given that the Cronbach's alpha of the questionnaire was .902 (more than .7), the questionnaire had good reliability. The questionnaire was distributed among the sample, and the data obtained in SPSS software version 20 was analyzed after completing the questionnaire. Spearman and Chi-square tests were used to analyze data. Considering the non-normality of the data distribution, Spearman and Chi tests are two valuable tools for understanding the relationships between variables. The research process consisted of the steps shown in Figure 1, respectively.

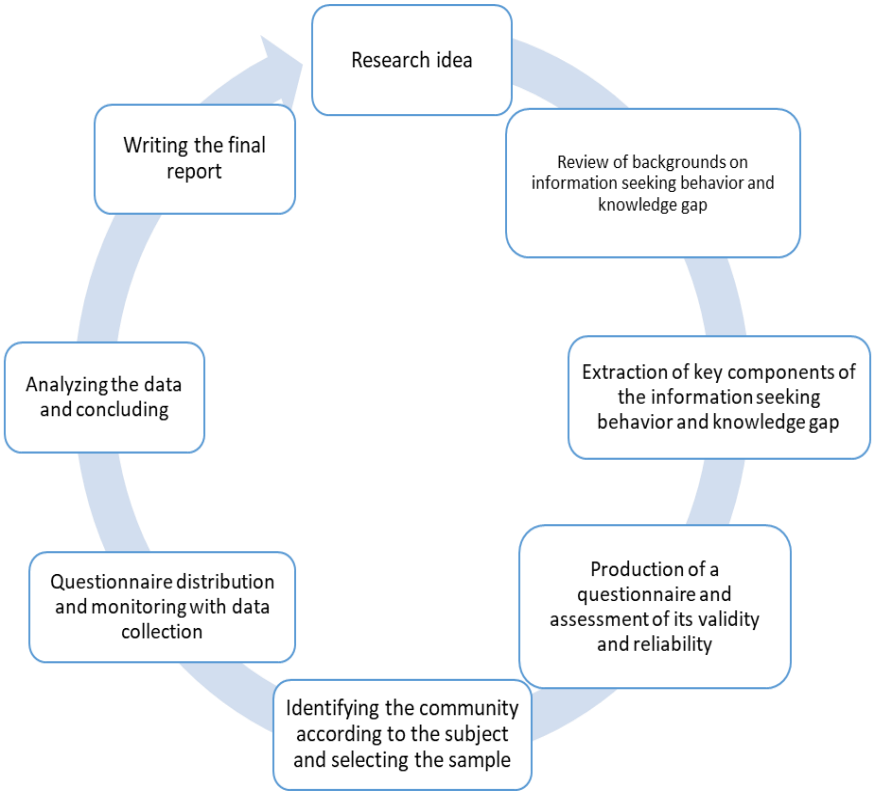

Figure 1. The research process in order of steps

Findings

Two hundred fifty-five people participated in this study. Of them, 40 were service staff, 122 were the university organizational staff, and 93 were fellow members of staff. 32.2% of candidates had PhD, 30.2% had master, 29% had bachelors 3.5% held associate degree and 5.1%, held highschool diploma and under that. The income of the studied sample varied from 150 to 1050 USD per month. 3.4% made under 150 USD, 22.7% between 150 to 300 USD, 39.6% made between 300 to 450 USD, 6.7% made between 450 to 750 USD, and 26.7% between 750 to 1050 USD. At first, we will discuss the sub-hypotheses of the research and then the main hypothesis.

The first research hypothesis: There is a significant relationship

between socio-economic status and the goals and motivations of searching and obtaining information among the human resources employed at Qom University.

The mean rate of the presented answers and the correlation coefficient of the given solution with the variables of education, income and occupation of the respondents are shown in Table 2. The correlation of the shown response to all items with the variables of individuals' education level, income and occupation is positive and significant (the presence of one or two stars next to the values of correlation coefficient indicates the significance of correlation at 90 and 95% of confidence, respectively).

Table 2. The percentage of responses, mean, and Spearman correlation coefficient of items related to the goals and motivations of searching and obtaining information

Item	None	Few	A few	Many	So many	Mean	Education	Income	Occupation
Updating the information	0	3.9	9.8	45.5	40.8	3.23	.658**	.526**	.652**
Identifying the specialized sources	3.5	2.4	23.1	30.2	40.8	3.02	.521**	.404**	.482**
Maintaining a position in the field and profession	0	0	13.3	61.2	25.5	3.12	.402**	.368**	.339**
Finding the answers to the required questions	0	1.2	16.9	43.9	38	3.19	.355**	.255**	.427**
Filling free time with fun	6.7	13.7	45.9	26.3	7.5	2.14	.333**	.311**	.258**
Doing research activities	5.9	9	30.2	25.5	29.4	2.64	.709**	.655**	.730**
Publication of an article in a journal	29.0	15.3	11.8	12.9	31.0	2.02	.736**	.693**	.698**

Presentation and subsequent publication of an article in a conference	36.9	8.2	21.6	16.5	16.9	1.68	.695**	.652**	.652**

In addition, the relationship between respondents' purposes and motivations about searching and obtaining information with variables of education, income and occupation levels has been investigated and presented in Table 3 by summarizing the answers provided to the eight items of the purposes and motivations component using the X2 test.

Table 3. The percentage of answers provided for the individuals' purposes and motivations component based on the respondents' education, income and occupation.

Status	Items	None	Few	A few	Many	So many
Education level	Diploma and lower	26	12.5	61.5	0	0
	Associate Degree	29.2	8.3	25	25.0	12.5
	Bachelor Degree	19.9	12.2	23.5	31.3	13.2
	Master`s Degree	5.7	6.8	3.27	37.2	23.1
	Ph.D.	1.2	.6	7.8	36	54.4
	Total	10.2	6.7	21.6	32.7	28.7
Significant level=.0001, Degree of Freedom=16, X2= 668.323						
Income level (in USD)	Less than 150	6.8	6.8	45.5	9.1	31.8
	Between 150 and 300	23.5	11	29.1	22	14.4
	Between 300 and 450	11.6	9.4	24.3	38.6	16.1.

	Between 450 and 750	0	2.9	22.8	47.1	27.2
	Between 750 and 1050	0	0	7.0	33.5	59.6
	Total	10.2	6.7	21.6	32.7	28.7
Significant level=.0001, Degree of Freedom=16, X2= 611.195						
The occupation type	Services	20.3	10	36.6	16.6	16.6
	Educational staff	14.8	10.8	24.9	37.3	12.3
	Fellow members of staff	0	0	10.8	33.7	55.5
	Total	10.2	6.7	21.6	32.7	28.7
Significant level=.0001, Degree of Freedom=8 , X2= 610.837						

The significance level of the X2 test shows that there is a significant relationship between the responses provided for the motivation and purposes component and respondents' education levels. The frequency of "many" and "so many" options has increased through the increase of education level. In other words, the purposes and motivations of searching and obtaining information for the respondents with an MA or MS. and doctoral degree were more than other respondents.

The significance level of the X2 test shows that there is a significant relationship between the answers provided for the motivations and purposes component, and income. The frequency of "many" and "so many" options has increased through the increase of revenue from the average income (300-450 USD); in other words, the purposes and motivations of searching and obtaining information for the respondents whose income is more than the average income (300-450 USD) has been higher than respondents having lower income than the average one.

In addition, the significance level of the X2 test shows a significant relationship between the motivations and purposes component and occupation. The frequency of "many" and "so many" options has increased by increasing people's occupation level from services to educational employees and fellow members of staff.

According to the statistical information in Table 3, there is a significant

relationship between social status and the purposes and motivations of searching and obtaining information among the human resources employed at Qom University. Therefore, the research hypothesis is confirmed.

The second hypothesis of the research: There is a significant relationship between the socio-economic status and the type of information resources used by the human resources employed at Qom University.

As Table 4 shows, the correlation coefficient of the answers provided for "the general informative and entertaining books" item is negative and significant; In other words, people with higher education, higher income and occupation level have used this source of information less. The correlation coefficient provided for the "general educational journals" item with the variables of education level, income and occupation level is not significant; In other words, the usage rate of this resource does not depend on the individuals' education, income and occupation level, and people with different levels of education, income and occupation have used this resource to the same extent. The frequency of using this resource is low in all mentioned groups- the average of the answers provided for this item is 2.05, which is very close to the "low" option(=2). The correlation coefficient of other things with the variables of education, income and occupation level is positive and significant. In other words, usage of the mentioned resources increases through the increase in individuals' education, income and occupation level.

Table 4. The percentage of responses, mean and Spearman correlation coefficient of items related to the used information sources' items

Item	None	few	A few	Many	So many	Mean	Education	Income	Occupation
Reference books	5.9	24.3	31.4	27.1	11.4	2.14	.351**	.364**	.437**
Persian books	1.2	11	18	65.1	4.7	2.61	.417**	.324**	.396**
Non-Persian books	23.9	11.8	17.3	34.4	8.6	1.96	.707**	.692**	.724**
Specialized books	0	24.7	20.8	24.7	29.8	2.6	.795**	.753**	.775**

General Informative and entertaining books	2.4	14.1	51	27.8	4.7	2.18	-.359**	-.414**	-.429**
Scientific and specialized journals	9	12.2	30.6	19.2	29	2.47	.540**	.527**	.576**
General Educational journals	5.9	19.6	47.5	17.6	9.4	2.05	-.049**	.009**	-.051**
Newspapers	9.4	21.2	49.8	11.8	7.8	1.87	.151**	.140**	.233**
Theses	16.5	24.3	17.6	29	12.5	1.97	.552**	.538**	.613**
Collections of conference papers	26.3	15.7	32.5	17.6	7.8	1.65	.507**	.498**	.615**
Standards	32.2	19.2	24.3	16.5	7.8	1.49	.542**	.519**	.589**
Reports on research projects	37.3	10.2	20	30.2	2.4	1.50	.570**	.580**	.608**
Patents	44.3	22.0	19.2	7.8	6.7	1.11	.565**	.591**	.577**

In addition, the relationship between the type of respondents' used information resources and the variables of education, income and occupation level is examined in Table 5. through collecting the provided answers for 13 items of the used information resources component by using the X2 test.

Table 5. Chi-square test results with percentage of responses provided for the items of usable information resources component separately sorted into education, income, and occupation

Status	Items	None	few	A few	Many	So many
Education level	Diploma and lower	28.4	13	32.5	20.7	5.3
	Associate Degree	33.3	15.4	23.1	23.1	5.1
	Bachelor Degree	29.7	25.8	28.1	10.7	5.7

	Master's Degree	16.9	18.2	29.1	28.1	7.8
	Ph.D.	.4	11	30.6	37.8	20.3
	Total	16.5	17.7	29.2	25.6	11
Significant level=.0001, Degree of freedom=16, X2= 649.121						
Income level (USD)	Less than 150	21	5.6	37.1	12.6	23.8
	Between 150 and 300	30.2	24.7	29.3	13.8	20
	Between 300 and 450	21.5	21.2	26.7	23.3	7.3
	Between 450 and 750	2.7	7.2	61.1	29	0
	Between 750 and 1050	0	11.1	23.8	40.4	24.8
	Total	16.5	17.7	29.2	25.6	11.0
Significant level=.0001, Degree of freedom=16, X2= 848.611						
occupation type	Services	27.5	21.7	31.7	11.5	7.5
	Educational staff	25.4	22.4	28.6	19.4	4.2
	Faculty members	0	9.8	29	39.9	21.3
	Total	16.5	17.7	29.2	25.6	11
Significant level=.0001, Degree of freedom=8, X2=734.053						

The significance level of the test shows that there is a significant relationship between the answers provided for the type of usable information resources component and the respondents' education. Respondents with a doctoral degree used a wide variety of information sources.

The significance level of the X2 test shows a significant relationship between the type of usable information resources component and the respondents' income level. The frequency of choosing "many" and "so many" options by the respondents has

increased through the increase of people's income from 750 USD; In other words, the respondents with income levels above 750 USD have used a variety of information sources largely.

In addition, the significance level of the test shows that there is a significant relationship between the answers provided for the type of usable information resources component and the respondents' occupation level. Fellow members of staff have used more diverse information sources than educational employees, and the educational employees more than the service employees.

According to the statistical information in Table 5, there is a significant relationship between the socio-economic status and the type of information resources used by the human resources employed at Qom University, thus, the research hypothesis has been confirmed.

The third research hypothesis. There is a significant relationship between social status and criteria for measuring and selecting information resources used by the human resources employed at Qom University.

According to Table 6, the correlation coefficient of all items with the variables of education, income and occupation level is positive and significant; In other words, the intensity of considering the criteria for measuring and selecting information sources has increased through the increase of the individuals' education, income and occupation level.

Table 6. The percentage of responses, mean and Spearman correlation coefficient for items related to the criteria for measuring and selecting information sources

Items	None	few	A few	Many	So many	Mean	Educaiton	Income	Occupation
The source originality	9.8	3.9	13.3	33.3	39.6	2.89	.546**	.543**	.576**
The source accuracy and credibility	9.0	11.4	22.7	32.5	24.3	2.52	.449**	.499**	.439**

Being Indexed	22.7	13.3	22.4	11.8	29.8	2.13	.770**	.763**	.728**
Easy access	2.0	11.4	16.9	34.1	35.7	2.90	.324**	.406**	.512**
Source language	2.7	16.1	23.9	24.7	32.5	2.68	.511**	.580**	.533**
Relevance	1.2	4.4	19.0	27.4	48.0	3.17	.279**	.369**	.411**
Being up to date	8.6	2.0	15.3	32.2	42.0	2.97	.470**	.441**	.538**
Author reputation	7.1	3.1	20.8	38.4	30.6	2.82	.181**	.183**	.207**
Publisher reputation	7.1	5.1	42.0	33.3	12.5	2.39	.251**	.190**	.248**
Source format	7.8	13.7	25.5	39.2	13.7	2.37	.415**	.333**	.404**

The relationship between the criteria used by the respondents with the variables of education, income and occupation level is also examined and presented in Table 7, through collecting the answers provided for ten items for the criteria of information sources assessment and selection component.

Table 7. The percentage of responses provided for the information sources assessment and selection criteria separately sorted into the respondents' education, income and occupation

Status	Items	None	Few	A few	Many	So many
Education level	Diploma and lower	9.1	6.3	46.9	18.9	18.9
	Associate Degree	24.2	3.0	21.2	42.4	9.1
	Bachelor Degree	16.6	16.6	22.7	22.7	21.3

	Master's Degree	4.8	8.0	32.5	27.2	27.5
	Ph.D.	0	0	7.5	41.6	50.9
	Total	7.6	7.7	21.9	30.6	32.2
Significant level=.0001, Degree of freedom=16, X2=751.212						
Income level (USD)	Less than 150	8.5	0	56.8	27.1	7.6
	Between 150 and 300	12.1	17.9	28.5	28.2	13.3
	Between 300 and 450	11.3	8.2	23.2	26.0	31.2
	Between 450 and 750	0	5.3	23.5	71.1	0
	Between 750 and 1050	0	0	8.6	29.9	61.5
	Total	7.6	7.7	21.9	30.6	32.2
Significant level=.0001, Degree of freedom=16, X2= 865.742						
Occupation type	Services	11.7	19.5	32.5	28.1	8.2
	Organizational staff	12.1	9.7	26.5	26.5	25.2
	Fellow members of staff	0	0	11.4	37.0	51.5
	Total	7.6	7.7	21.9	30.6	32.2
Significant level=.0001, Degree of freedom=8, X2= 612.874						

The significance level of the test shows that there is a significant relationship between the answers provided for the items of the information sources assessment and selection criteria component and the respondents' education. The respondents with doctoral degrees have used the requirements for measuring and selecting various sources.

The significance level of the X2 test shows that there is a significant relationship between the answers provided for the items of the information sources assessment and selection criteria component and the respondents' income level. The frequency of the respondents'

“many” and “so many” choices has increased through the increase of their income; In other words, the respondents with incomes above 450 USD have used a wider range of criteria.

The significance level of the X2 test shows that there is a significant relationship between the answers provided for the items of the information sources assessment and selection criteria component and the respondents’ occupation level. Fellow members of staff have used various measures comparing the educational employees, and the educational employees have done the same more than the service employees have.

According to the statistical information provided in Table 7, there is a significant relationship between social status and criteria for measuring and selecting information resources used by the human resources employed at Qom University, so the research hypothesis has been confirmed.

Fourth sub-hypothesis of the research: There is a significant relationship between social status and the information access channels used by the human resources employed at Qom University.

According to Table 8, the correlation coefficient of the answers provided for the items of "referring to libraries" and "public social networks" with the variables of education level, income level and occupation type is insignificant. The correlation coefficient of the "public search engines" item with the variables of the respondents’ income and occupation is not substantial. In other words, the frequency of using these information access channels does not depend on the individuals’ education, income and occupation and different people with different levels of education, income and occupation have used these information access channels to the same extent. Other correlation coefficients between the items and variables of education, income and occupation level are positive and significant. In other words, using the mentioned channels increases through the increase of individuals’ education, income and occupation level.

Table 8. The percentage, mean and Spearman correlation coefficient of items related to the information access channels component.

Item	None	Few	A few	Many	So many	Mean	Education	Income	Occupation
Referring to the library	5.5	13.7	28.2	37.6	14.9	2.43	.060	-.053	.106
Public search engines	0	7.1	13.7	44.7	34.5	3.07	.217**	.043	.116
meta-search engines	25.1	12.2	46.3	9.8	6.7	1.61	.480**	.253**	.453**
Free sites	7.5	4.3	32.9	28.6	26.7	2.63	.486**	.210**	.392**
E-mail	14.5	12.5	29.0	22.7	21.2	2.24	.672**	.601**	.651**
Specialized blogs	14.1	9.4	41.2	20.8	14.5	2.12	.326**	.186**	.444**
Library RSS	23.5	11.8	21.6	34.9	8.2	1.93	.498**	.527**	.647**
External databases	33.3	7.5	14.1	3.9	41.2	2.12	.715**	.684**	.756**
Internal databases	22.7	11.8	9.4	9.0	47.1	2.46	.683**	.562**	.727**
Conferences and congresses	26.3	10.6	31.0	29.4	2.7	1.72	.553**	.487**	.577**
Getting help from librarians	4.7	16.9	40.8	22.7	14.9	2.26	.123	.198**	.254**
Consulting with friends	.4	2.7	27.8	42.7	26.3	2.92	.216**	.280**	.479**
Consulting with internal experts	14.5	10.2	19.6	27.8	27.8	2.44	.514**	.450**	.576**
Consulting with international experts	33.7	7.1	29.0	12.2	18.0	1.74	.576**	.575**	.642**
Public social networks	28.2	18.8	34.1	16.1	2.7	1.46	.002	-.050	.043
Specialized social networks	41.6	19.2	20.4	15.7	3.1	1.20	.291**	.223**	.308**
Participation discussion groups	36.9	16.9	21.2	11.8	13.3	1.48	.631**	.583**	.621**

The relationship between the respondents' information access channels with the variables of education, income and occupation level is examined and presented in Table 9, through collecting the presented answers for the information access channels' component using the X2 test.

Table 9. The percentage of answers provided for the items of information access channels component separately sorted into the respondents' education, income and occupation.

Status	Items	None	Few	A few	Many	So many
Education level	Diploma and lower	24.4	20.4	47.1	0	8.1
	Associate Degree	27.5	9.8	21.6	25.5	15.7
	Bachelor Degree	40.7	14.5	24.3	11.7	8.8
	Master's Degree	14.7	12.5	22.8	30.5	19.6
	Ph.D.	3.4	6.2	31.1	29.5	29.8
	Total	19.6	11.3	27.1	23.0	19.1
Significant level=.0001, Degree of freedom=16, X2= 960.406						
Income level (USD)	Less than 150	9.6	1.1	54.5	6.4	28.3
	Between 150 and 300	40.7	12.1	20.9	15.6	10.8
	Between 300 and 450	22.9	16.9	23.1	22.8	14.4
	Between 450 and 750	¼	14.9	27.0	37.7	19.0
	Between 750 and 1050	2.8	3.2	33.9	28.5	31.6
	Total	19.6	11.3	27.1	23.0	19.1
Significant level=.0001, Degree of freedom=16, X2= 938.160						

Occupation type	Services	41.5	10.9	28.8	5.7	13.1
	Organizational staff	25.7	16.7	25.5	21.6	10.5
	Fellow members of staff	2.0	4.4	28.4	32.3	32.9
	Total	19.6	11.3	27.1	23.0	19.1
Significant level=.0001, Degree of freedom=8, X2= 980.700						

The significance level of the X2 test shows that there is a significant relationship between the answers provided for the items of the information access channels and the respondents' education. Respondents with master's and doctoral degrees used a variety of channels to access more information.

The significance level of the X2 test shows that there is a significant relationship between the answers provided for the items of the information access channels and the respondents' income. The frequency of respondents' "many" and "so many" choices has increased through the increase of their income. In other words, respondents with higher income levels used the various channels of access to more information.

The significance level of the X2 test shows that there is a significant relationship between the answers provided for the items of the information access channels and the respondents' occupation type. Various information access channels have been used as the individuals' occupation type has changed.

According to the statistical information listed in Table 9, there is a significant relationship between the socio-economic status and the information access channels of research population. as a result, the research hypothesis has been confirmed.

Conclusion

The study results showed that socio-economic status eplains and predicts the information-seeking behavior of Qom university fellow members of staff staff; therefore, the results confirmed the knowledge gap theory. According to the knowledge gap theory, the knowledge of the part of the society that has a higher socio-economic status increases

compared to the group that has a lower socio-economic status, and the knowledge gap between these two classes continually increases.

According to the findings, people with higher socio-economic status (with higher occupation, income and education levels) were more motivated to search and obtain information. The most important motives and purposes of these people in getting information have been updating information, identifying specialized resources, maintaining a high status in the field and profession, and finding answers to the needed items in the area of work and expertise. The lower socio-economic status, such as employees of the university services department who have lower income, education and occupation levels, feel the need to seek and obtain information less; consequently, they are less motivated to get it. The individuals' socio-economic status has a direct effect on their motivation and purposes in obtaining information, and this is the motivation that determines the type of individuals' used information resources.

The results of our study are consistent with the results of researches conducted by Kim (2008), Naebi, Dehghan, and Moeidfar (2008), Afshar Kohan and Sharafi (2016), Chan and Goldtrope (2007), and Koser (2017). According to Kim (2008), there is a significant gap in the political knowledge of respondents with higher and lower education. Naebi, Dehghan, and Moeidfar (2008) showed that people with higher education level use media more than the ones with lower education level for educational and scientific purposes. According to Afshar Kohan and Sharafi (2016), people with a higher socio-economic status feel the need for more guidance, and they use more media. Chan and Goldtrope (2007) regarded the income and education level of Canadian households as essential factors in cultural consumption. Koser (2017) evaluated the knowledge level of the participants to be more dependent on their economic conditions, their education level and their services to be provided.

The results showed a significant relationship between the components of individuals' socio-economic status and the type of their used resources. thus, people with higher education and income and occupation levels use more different information sources. In general, reference books, specialized and general, informative and entertaining Persian books, and specialized scientific and educational journals were used more than other sources. The study showed that people with higher education and occupation levels use less general informative and

entertaining books. On the contrary, when the occupation, income and education levels are higher, people more use reference and specialized books and non-Persian books. Finally, the understudied population with different socio-economic status use less general educational magazines. The results of the present study are consistent with the results of Iranians' values and attitudes survey, which is incorporated into the third phase of the National Survey of Cultural and Research Goods Consumption (2020). Findings of the Iranian Values and Attitudes Survey done by the National Plans Office of the Institute of Culture, Art and Communication, and the Social Observation Center (2016) showed that people with higher education use the Internet or read books more than people with lower education. The results of the third phase of the National Survey of Cultural Goods Consumption (2020) showed that there is a relationship between individuals' socio-economic status and the level of accessing and using information resources and tools, so the rate of reading books, newspapers, and magazines has increased through increasing the people's education and occupation levels and their economic status. Bukodi (2007) showed that people's social status affects the diversity of subjects they read.

The people who have a higher socio-economic status use more diverse and specialized sources by considering their purposes of obtaining information and the types of their used resources, and they have used various evaluation criteria to a greater extent while assessing accessed information. The criteria of being relevant, being up-to-date, having easy access, originality of the source, and the author's reputation have been considered more than others.

Finally, people with different socio-economic status use more diverse and different channels to obtain information. The frequency of using search engines and metasearch engines, internal and external databases, conferences, library RSS, specialized social networks, consulting with librarians, and specialized blogs have a positive and significant relationship with socio-economic status and the individuals with higher economic and social rate use these channels more. Using public social networks and referring to the library as the channels of access to information were not related to the individuals' socio-economic status. All individuals used these channels to the same extent. The results of the study are consistent with the results of researches done by Naebi, Dehghan and Moeidfar (2008), Afshar Kohan,

Hosseini, and Naderifar (2011), Niederdeppe (2008), Anduiza, Gallego, and Jorba (2009), Vite (2020) and Tran (2013). Naebi, Dehghan, and Moeidfar (2008) showed that the rate of using media is higher among those with higher education than those with lower education. According to the results of a study by Afshar Kohan, Hosseini, and Naderifar (2011), affluent students have more favorable conditions for creative usage and obtaining useful information from the Internet due to the possibility of having access to more comprehensive public information, more familiarity with English and various Internet facilities and more access to permanent and high-speed Internet.

According to Niederdeppe (2008), the information searching is done more frequently by highly educated people than less educated people. Anduiza, Gallego, and Jorba (2009) considered that the political knowledge of users who use the Internet constantly is more than those who do not use it always. Highly educated Internet users learn more than low-educated users. According to a study by Vite (2020), there is still a knowledge gap on international communication issues among people with different socio-economic status, because the distribution of smart devices/services and satellite services/devices is unequal amidst the population members. Tran (2013) believes that the socio-economic situation strongly influences different population segments' choice to use traditional and online information resources. Affluent and educated groups are more likely to search for news via different channels and use new technologies to get the news. However, the results of a study by Kiya (2016) showed no significant relationship between social class indicators and the rate of blogging.

Predicting the facilities required to search and seek information by the government, especially in academic and non-academic centers for all human resources will help ensure equitable access to information for a significant portion of society and help reduce the knowledge gap; therefore, organizations' managers, especially academic administrators are recommended to provide access to media and information tools in an equal and easy way for all their employees as public access to information tools and information resources reduce the information gap.

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