The information needs and information-seeking behaviour of commerce and management academics: A study of Saurashtra University – Rajkot[1]

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ABSTRACT

The study reports the methods as well as sources for information seeking used by commerce and management academicians of Saurashtra University, Rajkot, to fulfil their information needs. The study was conducted to understand the needs of the library professionals and how those needs can be fulfilled. This study is descriptive as well as cross-sectional in nature. A detailed, structured questionnaire was prepared to collect the required data from the academics of commerce and management fields of the university. The findings showed that most of the academicians preferred conferences and their proceedings as the basic source of information. The respondents prefer all the formats including printed and digital methods to seek information. Also, it was noted that the gender sensitiveness and age groups do not act as a barrier for any language preference or specific formats for preparing the course material. Since this study was confined to the commerce and management academics of Saurashtra University, future studies could cover more departments in more universities. Libraries and information centres play a major role in the information transfer cycle. This study helps library professionals to understand the needs of the academicians and overcome the challenges faced by them.

Keywords: information needs, information-seeking behaviour, information needs behaviour, commerce and management academicians

INTRODUCTION

The study aims to understand the information needs and information-seeking behaviour of commerce and management academicians. The information needs of academicians vary according to gender, educational qualifications, designation and work experience. These academicians may include students, research scholars, assistant professors, associate professors and professors. According to these differences, their information-seeking behaviour differs. To fulfil these information needs, the academicians can use appropriate resources to seek information. For instance, an assistant professor who has to complete his/her PhD thesis/dissertation needs to seek information from various sources for his/her research. On the other hand, a professor might need to seek information for his/her related subject, so he/she will opt for reference materials. Thus, it is evident that irrespective of their ages, designations or years of experience, the academicians need to have access to the information they require.

The information needs may vary in respect of the interest of the study and research work. Various sources which fulfil these information needs and contributing to information-seeking behaviour include:

- correspondence through mail or a visit to a library (e-mail alerts, current awareness services of libraries, conversations with library staff, publisher catalogues and flyers, visiting bookstores)

- information through attending conferences or as research supervisor (browsing the collections in libraries, electronic databases, review articles, research articles, bibliographies, attending conferences, seminars and workshops)

- information through journals (indexing journals, abstracting journals)

- library work (book reviews, library catalogues)

- electronic and print media (consultation with experts in the field, media: TV, radio and newspapers)

- information through search engines (Internet search engines, by chance searching on a specific topic, one may find valuable information on an entirely different topic).

In this study, a questionnaire was prepared to understand the purpose, methods and sources of seeking information among the academicians of commerce and management departments in Saurashtra University.

Information needs

The term 'information needs' refers to the necessities, wants or demands of getting information. These needs can be the result of different purposes for which different users require the information. There are various methods of attaining information, which may include research work, references for some topics, awareness and much more. It is important for the user to understand what type of information need he/she requires to ensure access to the right source for seeking that information. Often, the information need is used interchangeably with simple awareness (Ishimura & Bartlett, 2014).

Information-seeking behaviour

Igwe (2012) defines the information-seeking behaviour of the user as a way of collecting and gathering information for various purposes, be it personal use or updating of knowledge. When the user understands the information needs, the next step is to seek information. Previously, the information-seeking sources were confined to books, newspapers, journals, magazines and other print media sources. However, with the advancement of time and emergence of the digital era, various Information Technology (IT) services as well as Internet services have come up as the crucial sources of information seeking. The information-seeking behaviour involves the methods and sources adopted by the users as well as challenges they face in this process of seeking information. Abdul (2012) reported information-seeking behaviour to be mainly concerned with the type of needs one has, and the various sources from which information has to be collected.

REVIEW OF LITERATURE

Thanuskodi (2012) identified various information channels adopted by the faculty members, their preferred information sources, various methods of getting the information needed and the pattern in which they used the library. The findings showed that books were the most preferable source for academicians to seek information, though among the IT resources, the Open Public Access Catalogue was most preferred. Additionally, among the Internet services, E-mail was rated the highest source for getting the information needed.

Narayanamma and Narasimham (2012) in their study investigated the information needs and information-seeking behaviour of academicians to understand the awareness level of information services available in

the library. It was found that a majority of the academicians visited the library for borrowing books while the rate of using periodicals was relatively low. It was also revealed that the awareness level of information services was more among science students as compared to arts and commerce students. Natarajan (2012) found that a majority of students visits the library on a daily basis and used the sources available effectively. In addition, the students were satisfied with the library collections.

Catalano (2013) suggested ways to draw different patterns for information-seeking behaviour, specifically of graduate students. In his study, he analysed the impact of the Internet as a resource for seeking information for graduate students. It was found that the graduates like to seek information from faculty members and from library resources. The study further suggested the pattern in which librarians help the students to seek information for their needs, thereby explaining the difference in information needs among graduate students, post-graduate students and research scholars.

Kumari et al. (2013) found that a majority of teachers went to the library in order to borrow books, for using periodicals, various journals and different reference materials according to their information needs but the frequency of going to the library varied. At the same time, a majority of teachers did not rely on audio-visual material to get the information they needed. The study also revealed that a large number of respondents (teachers) were not concerned with the government documents, the dissertation/thesis or proceedings of conferences when it came to seeking the information they needed. Around 97.4% of the teachers were aware of the back volumes of the referred journals. Lastly, it was seen that almost all the teachers were satisfied with the different sources of information that the library provided. Among the services, a majority of teachers used a circulation service, a computerised service, a reference service, as well as a photocopying service.

Oak, Meenal and Patil (2014) explored the information-seeking behaviour of the faculty members in the higher education institutions of MES. The study established that the respondents had different needs of information ranging from the completion of research projects to references for teaching purposes. Additionally, it was found that only 8% of the respondents visited the library for seeking information on a daily basis, while most of the respondents (faculty members) preferred remote access to the electronic information resources.

Ngozi et al. (2015) studied the information-seeking behaviour of the faculty members of the Federal University of Petroleum Resources (FUPR). By way of a questionnaire it was found that books were the preferred source of information for the respondents (faculty members). However, some of the faculty members were not satisfied with the library collections and preferred Google as the source of the information they needed; but the poor internet facilities, lack of proper power supply and lack of appropriate time were major challenges.

Singh et al. (2015) examined the information needs as well as the information-seeking behaviour of foreign students. The findings of the study were that, on one hand where the post-graduate students needed information related to their academic programme, the research scholars needed information, which could help them in completing their research work. It was found that most of the respondents preferred the Internet as the source for seeking information. Out of the total respondents, 88.6% additionally preferred books for seeking related information. In addition, the respondents (students) were satisfied with the library collections but complained about the issues related to infrastructure of computer labs. Thilagavathi and Thirunavukkarasu (2015) studied the information needs and seeking behaviour of faculty members with the help of a structured questionnaire. From among 334 faculty members of the university, it was found that the primary resources that the respondents used for seeking information included books, journals and the Internet. The study also showed that major problems which their faculty members faced while seeking information were overflowing of information, low Internet speed and lack of support from library staff.

Though the sources were revealed through the study, the study failed to detect the pattern in which the resources were used.

Ibrahim et al. (2018) studied the information needs and information-seeking behaviour of the foreign students studying in the University of Madras. The study established that the foreign students preferred printed material as a great source of information. They were satisfied with the library collection but raised the importance of better literacy programmes.

RESEARCH METHODOLOGY

Problem statement

Through the literature review conducted, it is evident that there are limited studies which have discussed the pattern in which information needs and information-seeking behaviour is affected by the resources available. The previous studies generalised the resources from which the academicians can seek the information, irrespective of gender and qualification differences. To bridge these research gaps, the present study was conducted.

Aim and objectives of the study

According to the research gaps that were witnessed in the previous studies, the present study was undertaken to study the information needs and information-seeking behaviour of academicians according to the gender, experience as well as qualification of the academician. Also, it analysed how the information in different languages can turn as obstacle or opportunity for the academician to seek the required information. The aims are:

- To investigate the methods and sources used by academicians to acquire information related to their research work

- To study the purpose of seeking information by academicians

- To analyse problems faced by academicians in gathering information related to research work

- To study the association between gender in relation with age group and preferred language of information material

- To investigate the association between gender in relation with age group and preferred format of information resources.

Hypothesis testing

Inferences on population characteristics (or parameters) are often made based on sample observations, especially when the population is large, and it may not be possible to enumerate all the sampling units belonging to the population. In doing so, one has to have the help of certain assumptions (or hypothetical values) about the characteristics of the population if such information is available. The following hypotheses were formulated:

H1: With reference to different age groups, gender sensitiveness is not a barrier for any language preferences for preparing course materials.

H2: With reference to different age groups, gender sensitiveness is not a barrier for any specific format for seeking information while preparing course materials.

Data collection instruments and procedures

Data collection was administered through a structured questionnaire, having two distinct sections. The first section collected general information, including demographic profiles, working with the university,

preferred language of information material and preferred format of information resources. The second section comprised academic information-seeking behaviour, which included methods and sources of required information, purposes of information seeking, and problems faced by respondents in information seeking. The questionnaire was administered personally as well as through an electronic medium (i.e. web-based survey).

In order to keep the survey instrument manageable, 24 items include methods and sources of required information, 12 items represent purposes of information seeking and 15 items represent problems faced by respondents in information seeking.

Respondents were requested to rate the frequency of use of each dimension on a five-point Likert scale to rate the statement on their level of agreement ranging from (1) strongly agree to (5) strongly disagree.

Limitations of the study

The present study is limited to the academicians of commerce and management of Saurashtra University, Rajkot. The sample of the data is very small as compared to the number of institutions across India. Further, the factors affecting information needs and information-seeking behaviour of the academicians are limited.

The present study has undertaken many sources from which one can seek the desired information. But in the fast-changing world and growing technology, there are a vast number of sources which can fulfil the information needs. Thus, the study can be short of the different sources which are used. At the same time, a great number of methods are evolving to extract the information from these sources but only a limited number of methods have been undertaken for the study. Further, there may be more challenges that academicians might be facing while seeking information. But as far as the present study is concerned, only a limited number of challenges have been considered. Thus, the factors that have been considered in the study are limited because of the lack of great knowledge and exposure to the data collected.

Demographic profile of respondents

The study, predominantly descriptive and cross-sectional in nature, focused on the teaching faculty across designations from commerce and management departments of Saurashtra University in Rajkot region, India (see Table 1).

Table 1:
Profile of respondents

	Characteristics	Frequency	Percentage (%)
Gender	Male	50	58.8
	Female	35	41.2
Age group	25-35	47	55.3
	36-45	25	29.4
	46-55	11	12.9
	Above 55	2	2.4

	Characteristics	Frequency	Percentage (%)
Designation	Professor	9	10.6
	Associate Professor	8	9.4
	Assistant Professor	43	50.6
	Lecturer	14	16.5
	Placement Officer	8	9.4
	Doctoral Fellow	3	3.5
Working in Saurashtra University	1-5 years	36	42.4
	6-10 years	10	11.8
	11-15 years	5	5.9
	More than 15 years	34	40.0

Among the 85 respondents who participated, 59% were male and 41% were female. The majority of faculty have the designation of assistant professor, followed by lecturer, professor and doctoral fellow. Fifty-five percent of the faculty are in the age group of 25-35 years followed by 25% in the age group of 36-45 years and only 2% in age group of above 55 years. Forty percent of faculty members have working experience of more than 15 years, and 42% have working experience between one to five years.

As shown in Table 2, from the age group of 25-35 years, 90.9% males and 92.9% females have been working for one to five years, while 57.9% of males have worked for more than 15 years in the age group of 46-55 years.

Table 2:
Demographic profiling of respondents

Working in Saurashtra University				Age group				Total
				25-35	36-45	46-55	Above 55	
1-5 years	Gender	Male	Frequency	20	2	0	0	22
			Percentage	90.9%	9.1%	0.0%	0.0%	100.0%
		Female	Frequency	13	1	0	0	14
			Percentage	92.9%	7.1%	0.0%	0.0%	100.0%
6-10 years	Gender	Male	Frequency	2	2	0	0	4
			Percentage	50.0%	50.0%	0.0%	0.0%	100.0%
		Female	Frequency	4	2	0	0	6
			Percentage	66.7%	33.3%	0.0%	0.0%	100.0%
11-15 years	Gender	Male	Frequency	0	5	0	0	5
			Percentage	0.0%	100.0%	0.0%	0.0%	100.0%

Working in Saurashtra University				Age group				Total
				25-35	36-45	46-55	Above 55	
More than 15 years	Gender	Male	Frequency	0	6	11	2	19
			Percentage	0.0%	31.6%	57.9%	10.5%	100.0%
		Female	Frequency	8	7	0	0	15
			Percentage	53.3%	46.7%	0.0%	0.0%	100.0%

Table 3 shows that 80% of males in the age group of 36-45 years preferred English as a language of information material, 72% of females in the age group of 25-35 years preferred English. In the age group 46-55, 54.5% of males preferred Gujarati as a language of information material.

Table 3:
Profiling of preferred languages of information material

Age group				Preferred languages of information material				Total
				English	Hindi	Gujarati	All the above	
25-35	Gender	Male	Frequency	7	2	%5	8	22
			Percentage	31.8%	9.1%	22.7%	36.4%	100.0%
		Female	Frequency	18	1	2	4	25
			Percentage	72.0%	4.0%	8.0%	16.0%	100.0%
36-45	Gender	Male	Frequency	12	0	2	1	15
			Percentage	80.0%	0.0%	13.3%	6.7%	100.0%
		Female	Frequency	6	0	1	3	10
			Percentage	60.0%	0.0%	10.0%	30.0%	100.0%
46-55	Gender	Male	Frequency	3	0	6	2	11
			Percentage	27.3%	0.0%	54.5%	18.2%	100.0%
Above 55	Gender	Male	Frequency	1	0	1	0	2
			Percentage	50.0%	0.0%	50.0%	0.0%	100.0%

From Table 4, 70% of females in the age group 36-45 years preferred all formats of information resources; whereas, 20% of females in the same age group preferred print media as a format of information resources. In the age group 25-35 years, 68.2% of males preferred all formats of information resources while 36% of females in the same age group preferred electronic media, and 26.7% of males in the age 36-45 years preferred print media, Lastly, 54.5% of males in the age group 46-55 years preferred all formats of information resources.

Table 4:
Profiling of preferred format of information resources

Age group				Preferred languages of information material				Total
				Print	Electronic	Audio Visual	All the above	
25-35	Gender	Male	Frequency	3	2	2	15	22
			Percentage	13.6%	9.1%	9.1%	68.2%	100.0%
		Female	Frequency	5	9	3	8	25
			Percentage	20.0%	36.0%	12.0%	32.0%	100.0%
36-45	Gender	Male	Frequency	4	2	1	8	15
			Percentage	26.7%	13.3%	6.7%	53.3%	100.0%
		Female	Frequency	2	0	1	7	10
			Percentage	20.0%	0.0%	10.0%	70.0%	100.0%
46-55	Gender	Male	Frequency	2	3	0	6	11
			Percentage	18.2%	27.3%	0.0%	54.5%	100.0%
Above 55	Gender	Male	Frequency	0	1	1	0	2
			Percentage	0.0%	50.0%	50.0%	0.0%	100.0%

Reliability test

Cronbach's alpha is conducted on the data in the abovementioned study as a measure of the internal consistency of a test or scale; it is expressed as a number between zero and one. Table 5 indicates that the value of alpha is 0.895; therefore, the reliability of the data for the study is 89%.

Table 5:
Reliability test

Cronbach's alpha	Cronbach's alpha based on standardised items	N of items
0.895	0.901	51

The Shapiro-Wilks test for normality is one of three general normality tests designed to detect all departures from normality. It is comparable in power to the reliability test. The test rejects the hypothesis of normality when the p-value is less than or equal to 0.05. Failing the normality test allows you to state with 95% confidence the data does not fit the normal distribution.

The Kolmogorov-Smirnov goodness of fit test (K-S test) compares the given data with a known distribution. Although the test is nonparametric, it does not assume any particular underlying distribution; it is commonly used as a test for normality to see if data are distributed. It is also used to check the assumption of normality in analysis of variance. If the p- value is small, it can be concluded that the two groups were sampled from populations with different distributions. The populations may differ in their median, variability or the shape of the distribution as shown in Table 6.

Table 6:
Test of normality

	Kolmogorov-Smirnov		Shapiro-Wilk	
	df	Sig	df	Sig
Methods and sources of required information	78	0.000	78	0.000
Purposes of information seeking	83	0.000	83	0.000
Problems faced by respondents in information seeking	81	0.000	81	0.000

In this study, the hypothesis of normality is rejected as the p-value is less than or equal to 0.05. As a result, only non-parametric statistical tests have been conducted for testing of hypotheses.

A chi-squared test is a statistical hypothesis test in which the sampling distribution of the test statistic is a chi-squared distribution when the null hypothesis is true.

Table 7(a):
Chi-square test

	Value	df	Asymp. sig. (2-sided)
Pearson chi-square	5.898	3	.117
Likelihood ratio	6.319	3	.097
Linear-by-linear association	2.699	1	.100
N of valid cases	85		

For testing the hypothesis, the test result indicates that p > 0.05 (Table 7a) and the study fails to reject the null hypothesis; hence, the author believes that for any age group, gender sensitiveness is not a barrier for any language preferences for preparing course material.

Table 7(b):
Chi-square test

		Value	df	Asymp. sig. (2-sided)
Total	Pearson chi-square	2.184	3	.535
	Likelihood ratio	2.181	3	.536
	Linear-by-linear association	1.155	1	.283
	N of valid cases	85		

Further, from Table 7(b) the study fails to reject the null hypothesis; hence, the author believes that for any age group, gender sensitiveness is not a barrier for any specific format for seeking information while preparing course materials.

In this study, factor analysis was used as a data reduction statistical technique that allows simplifying the correlational relationships between numbers of continuous variables. Exploratory factor analysis is a general name denoting a class of procedures used for data reduction and summarisation. Exploratory factor analysis allows researchers to condense a large set of variables or scale items into a smaller, more manageable number of factors or components.

In Table 8, Kaiser-Meyer-Olkin (KMO) is the measure of sampling adequacy, which varies between zero and one. The values closer to one are better and the value of 0.6 is the suggested minimum. If KMO is > 0.5, the sample is adequate.

Table 8:
KMO and Bartlett's test

KMO and Bartlett's Test				
Kaiser-Meyer-Olkin measure of sampling adequacy		**0.640**	**0.713**	**0.786**
Bartlett's test of sphericity	Approx. chi-square	1431.948	548.947	947.741
	Df	276	78	105
	Sig.	0.000*	0.000**	0.000***

*Methods and sources of required information
** Purposes of information seeking
*** Problems faced by respondents in information seeking

Bartlett's test of sphericity is the test for null hypothesis that the correlation matrix has an identity matrix. Taking this into consideration, these tests provide the minimum standard to proceed for factor analysis. If p-value (sig.) < 0.05, then the factor analysis is valid.

Factors that accounted for eigenvalue ≥1 were retained. In the first category, six factors met the threshold criteria of eigenvalue with 73.01% variance explained, followed by three factors each for the remaining two categories met the threshold criteria of Eigen values with 64.74% and 69.39% variance explained. The factors extracted along with factor loadings for all three categories are shown in Table 9.

Table 9:
Exploratory factor analysis

Factor	Variables included	Loadings	Category
1. Correspondence through mail or a visit to a library	Listservs / e-mail alerts	0.780	1
	Current awareness services of libraries	0.775	
	Conversations with library staff	0.765	
	Publisher catalogues and flyers	0.719	
	Visiting bookstores	0.643	
2. Information gathered through attending conferences or as research supervisor	Browsing the collections in libraries	0.801	
	Electronic databases	0.792	
	Review articles	0.687	
	Research article and research supervisor	0.683	
	Bibliographies	0.630	
	Attending conferences, seminars and workshops	0.613	
3. Information through Journals	Indexing journals	0.859	
	Abstracting journals	0.811	
4. Library work	Book reviews	0.683	
	Library catalogues	0.564	
5. Electronic and print media	Consultation with experts in the field	0.833	
	Media: TV, radio and newspapers	0.607	
6. Information through search engines	Internet search engines	0.829	
	By chance (e.g., while searching on a specific topic, you find valuable information on an entirely different topic)	0.694	
1. As a researcher	Keep up with current developments	0.782	2
	Support own research	0.775	
	Workshop and seminar presentations	0.757	
	Develop competence	0.754	
2. As a programme host	For programme co-ordinator	0.859	
	Preparation for TV and radio	0.832	
3. As a reader	Reading purposes only	0.865	
	Service or job requirement	0.766	
	Carry out administrative work	0.612	

1. Lack of time	Language barrier (most of the material is in foreign languages)	0.807	3
	Non-availability of electronic resource (e-journals and databases)	0.784	
	Lack of information about available sources	0.737	
	Too many classes or administrative work	0.703	
2. Incompetent staff	Library staff is incompetent or not well-trained	0.874	
	Lack of technical support	0.869	
	Lack of computer hardware or software	0.862	
3. Information explosion	Information is scattered in too many sources	0.837	
	Information explosion or too much information	0.829	

Category 1: Methods and sources of required information
Category 2: Purposes of information seeking
Category 3: Problems faced by respondents in information seeking

The factor loadings range from 0.564 to 0.874. In the first category, 'Methods and sources of required information', out of 24 items, six factors were labelled that had 19 items with factor loadings ranging from 0.564 to 0.859. In the second category, purposes of information seeking, out of 12 items, three factors were labelled that had nine items with factor loadings ranging from 0.612 to 0.865. In the third category, problems faced by respondents in information seeking, out of 15 items, three factors were labelled that had nine items with factor loadings ranging from 0.703 to 0.874.

CONCLUSION

The study reveals, firstly, that there are six factors that act as the best methods among academicians to seek information. These include: correspondence through mail or a visit to the library, information gathered through attending conferences or as research supervisor, information through journals, library work, electronic and printed media, and information through search engines. Out of these six factors, the best method is to get information through attending conferences or as research supervisors.

Secondly, the study focuses on three factors as purposes for seeking information. These factors include seeking information as a researcher, seeking information as a programme host and seeking information as a reader. Among these factors, the main purpose for seeking information is seeking information as a researcher for completing research work.

Thirdly, the study focuses on three main factors that act as challenges and obstacles. These factors include lack of time, incompetent staff and information explosion. Among these factors, the most alarming challenge is lack of time. According to the rejection of the hypothesis H2, it can be understood that gender sensitiveness is not a barrier for any language preference for preparing course materials for any age group, since the majority of the respondents prefer English as the language of information material.

Finally, according to the rejection of the hypothesis H1, it can be understood that gender sensitiveness is not a barrier for the specific format for preparing course materials for any age group, since the majority of males and females prefer all the formats.

It can be concluded from the study that all its objectives have been successfully met. The information needs and information-seeking behaviour of commerce and management academicians can be met if more exposure is given to conferences and their proceedings. The university needs to work on making its staff more competent and make the library collection efficient.

RECOMMENDATIONS

The findings of this study indicate that information seeking may be motivated by a wide variety of needs, including those that are personal, professional, entertainment, etc. The academics need to be enlightened about search strategies and techniques through information literacy programmes either in manual or electronic form. The main role of the librarian is to be familiar with the information requirements of the users. Libraries need to understand information-seeking behaviour of users. The university administration should provide more books (electronic and print) and journals (electronic and print) to meet faculty members' academic and research needs.

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