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Changing Role of Librarian in Knowledge Management: A Survey of Public Sector Universities

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Changing Role of Librarian in Knowledge Management: A Survey of Public Sector Universities

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Abstract

In the current era, libraries have been more advanced and known as a place where wider access to information is available in many formats and from different sources. Thus, it also changed the role of the librarian in the premises of the library. Now the librarian has become more resourceful by using a modern tool in the library to provide quicker, complete, and more refined information to students. Researchers identified the roles of a librarian in knowledge management is to identify the categories of knowledge needed by the student and to use information technology to help organize, store, and retrieve information. Therefore, the present study aims to investigate the current role of the librarian in the Public Sector Universities in Karachi. For this purpose, the survey design has adapted to carry out the research. Since the population was not large enough, the whole population was considered as sample. The researchers collected data from librarians of public sector universities of Karachi using closed- ended questionnaire comprised of four parts. Collected data were analyzed by using t-test on SPSS-21. The results of this study showed that the library is not only just a building or a physical repository that keeps the information, but it is a hub of knowledge provider. Hence, librarians have accepted the challenge of digital age and revolutionized their role from guardian of knowledge to knowledge managers for their survival.

Keywords: Librarian, Changing Role, Knowledge Management

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Table of Contents

INTRODUCTION

History shows the concept of the library is ancient, initially people considered the library as a gathering and assembling of information and services. The library has played an essential role in enabling and engaging people with different information and knowledge (Curran et al., 2006). But In the current era, libraries have been more advanced and known as a place where more extensive access to information is available in many formats and from different sources. The information technology (IT) has contributed a lot in the library as information space and practice (Holmberg et al., 2009).

The university seminar or academic libraries play a vital role in acquiring higher education to fulfill the objectives of its institution. Students at university level required library facilities for mastering the subject-matter, techniques, and skills, etc. which cannot be provided inside the classroom. Therefore the university library is a collection of multiple sources and services to support teaching, learning, and research activities. In an academic institution, library resources depended on educational and research supplies facilities. Krolak (2006) stated that library helps in finding, using and interpretation of information that unlocks the door for future opportunities and enduring learning, literacy enrichment, knowledgeable citizenship, recreation, creative imagination, conducting research, critical thinking, and empowerment in a progressively complex world.

The university seminar library supports the curriculum and assists the researcher to conduct research and their information and create new knowledge. Researchers stated that the university library is a system that is established to support, fulfill the desire of student for needed information and to assist in research (Khan, Bhatti, & Ismail, 2014).

It is said the library is incomplete without a librarian since the role of librarian holds the center position in the library. Anciently, librarian role was limited to selecting books for the collection and systemically distributed the required text to the public. For this account librarian possessed two most essential traits are general knowledge and public need (Arant & Benefiel, 2003, p. 10). The role of librarians is to provide information for centuries. But now a profession of librarian become more opportunistic by using the modern tool in the library to offer quicker, complete, and more refined information to students. Today the environment of the library has changed, and librarians work is also changing which demands excellent access to range of information, high speed in acquiring knowledge, greater difficulty in finding, analyzing and connecting data, persistently changing technology and adaptation, lack of standardization of both hardware and software, endless learning for students and staff,

management of financial investment for technology (Rao & Babu, 2001). Since the duties and the burden of work of librarian has increased, the demand of librarian for knowledge management has also increased. Many authors have researched the question of changing the role of the librarian in the new era of the internet. And it has been discovered that librarians would play a more influential role than past; as lead to the student in a universe of information.

Objectives of the Study

The objectives of this study were:
1. To study the current role seminar librarians in the Public Sector Universities in Karachi.
2. To analyze the seminar librarian's skills in facilitating students in library.
3. To examine the seminar librarian's knowledge in facilitating students in library.
4. To explore the seminar librarian's skills in knowledge management at seminar libraries.
5. To investigate the role of seminar librarian in conducting research and facilitating research students.

Research Questions

The research questions of this study were:
1. What is the current role of the librarian in seminar libraries in the public sector universities?
2. How are seminar librarians facilitating students in library based on their skills and knowledge?
3. What skills and competencies librarians required for Knowledge Management to satisfy students' needs in the seminar library?

LITERATURE REVIEW

History of Library

The word 'library' derived from the Latin word 'libraria' which means 'place storing book.' Which shows the concept of ancient libraries is different from today. Researches show the first library of the world was established in the 10th century of BC in the Kingdom of Babylon followed by great Alexandria Library (Zhang, 2011; Casson, 2002).

In early ages in Egypt around 2600 BC, people archived information by writing it on clay in cuneiform script on walls of temples for record keeping (Casson, 2002; Harris, 1999). Later on, the ancient Library of Alexandria had been founded by Alexandria the Great in 332 BC, where the main purpose of the Library of Alexandria is to teach and conduct scientific

research inside the premises. At that, Egypt was considered the hub of libraries (James G. G., 1954)While in Rome, the earliest library was developed in 200 BC by following footprints of

Source: Changing Role of Library Professional in Digital Environment: A Study (Verma, 2015, p. 99)

Greece. On the period of rising Roman empires, they collected remarkable treasures which include works of philosophy, literature, and history by war from Greece and Asia (Harris, 1999). The main change in libraries was invented between 5500 and 6000 years ago when writing was invented in Mesopotamia and Egypt, 5000 years ago in Turkey and 3500 years ago in China. But the library gained the popularity and access to the common man in 1600s to 1700s when national libraries and university libraries started to develop (Barbara, 2012).

Traditional Role of Librarian

The information that the student required maybe approached by various methods but the skills of librarian need to manage this information can be improved from established practices. In the era of technology, no one can deny that the library environment has changed and librarians are still discovery their ways to overcome the current demand of the user. The fundamental skills traditionally associated with librarians are (i) handling information; (ii) training and facilitating; (iii) evaluation; and last but not least (iv) concern for the student. However, these skills cover cataloging, classification, indexing, inquiry work, and satisfying students need for information (Verma, 2015).

Above figure shows the primary role of the librarian in a library. The traditional librarian based on a cyclic process i.e., to collect the knowledge from various sources, collaborate knowledge with previous knowledge, dissemination of the knowledge to the staff members of an institution and students, bring innovation in knowledge and to organize the knowledge.

Definition of Knowledge Management

The term knowledge management was first used in 1987 for core study in information handling and utilization of information (McInerney & Koenig, 2011) later the term went common for the public in 1993 (Prusak, 1999). The term Knowledge Management has been evolved in recent time. Now, knowledge management is defined as the "tool, techniques and strategies to retain, analyze, organize, improve and share business expertise" (Groff & Jones, 2003). Munn (2011) stated that knowledge management is an idea in an organization which pursues to identify, capture, circulate, and utilize the knowledge and information for the benefit of both staffs; employers and users. Bhatt (2011) said KM is a process of knowledge creation and its validation, presentation, circulation, and the use of knowledge in an organization. Thus it can be said KM process involves the identification, production, and presentation of knowledge which can be use and reuse of knowledge (Onwura & Chiaha, 2008) again and again.

Librarian and Knowledge Management

With the evolution of technology and changing time in the 21st century. The libraries are human organization, where they have subjects, and there has the same kind of influence that many organization deals with (Budd, 1998). Now the changing environment of libraries required new skills and competencies in librarians. To meet the current need and demand the knowledge and expertise of a librarian needs to enhance and consider as an asset of the library. Therefore, knowledge management has been introduced into seminar libraries, which can lead to a more significant, out-of-box role of seminar libraries.

Now libraries have strategic goals, which involve users (students), their work organization, be familiar with technology as a useful tool and are structured in cross-functional teams. Knowledge management organization in libraries inclined to be more individual-based, reflecting the prevailing trend toward organizational independence. And to work efficiently and collaborative, librarians needed to be more knowledge updated within library knowledge (Townley, 2001).

Knowledge management is a wide-ranging multi-functional zone that comprises various aspects of the work that librarians perform day-to-day activities of an institution or organization. Milian (2009) stated that if a librarian possesses well-managed knowledge, can increase the performance of intuition security and give strength to competitive advantage and viability.

Chigbu & Anthonia (2013) identified the roles of a librarian in knowledge management include (but not limited) to the following:

a) To determine the categories of knowledge needed by the student;

b) To gain the understanding that staff, students and other student need at a central repository/library;

c) To collect, process and circulate information throughout the institution;

d) To measure the present knowledge base of the institution, recognizing and filling knowledge holes;

To use information technology to help organize, store and retrieve information;

e) To provide information access tools;

f) To create an awareness of the knowledge available in the depository through workshops, seminars, and exhibitions; and

g) To train library staff on how to manage knowledge and information through the use of information technology

Changing Role of Library

In ancient times, there was no concept of the library as we have today. At that time the records were scattered, and most of them destroyed in wars or consumed by fires. According to Obadare (2014) records that designed in old libraries categorize into four types: (i) temple collection; (ii) government and royal collections/archives; (iii) organized business records and; (iv) family history papers. When libraries were started to develop, the role of librarians to acquire and hold the record in the premises of the library. Therefore, traditionally librarian was acknowledged as a person who found in the library building and doing tasks like obtaining, organizing, preserving the hard copy of documents besides helping the students in finding out the information they needed.

In the past eras of the twentieth century. The role of the librarian has wholly changed by the advancement of computer and internet. The responsibility of the librarians has increased from past in term of packaging and re-packaging of information, e-published journals, and books, instructing and recommending the student to identify relevant information they needed

from electronic sources, etc. For this purpose, the librarian needs to be more updated and skilled full from a traditional role to deal with users or students (Sherpa, 2017). The library role has emerged into two given below main areas.

- **Several formats of information.**

The expansion of the internet has brought change in all area of human life, including libraries. Today the knowledge in the library are not limited. Today the library's collection is not only comprised of printed documents, but it has also included materials in several formats (Budd, 1998). It has been reported that from the past few years, the emergence of the internet has had a meaningful effect on the growth of information and the speed of broadcast of information. New means to provide information by using the internet giving a challenge to librarians, in terms of helping a student in finding the information they desired from websites on the internet.

As knowledge and research resources have modified and found in varied sources, and this challenge to seminar libraries and librarians. The researcher claimed that the changing nature of information, research strategies in higher education are affecting seminar libraries. These changes state the most of the shifting context present in libraries must operate. Electronic media bring this change and transform demand librarians to update their knowledge about jobs and the users/students (Budd 1998). Seminar librarians need attempt to remain skilled navigators of every medium to help the library students.

- **Changing user needs.**

As universities' demands are changing in terms of improving students learning outcomes, this has a direct impact on seminar libraries of the university and their delivery of services. With society and technology development, traditional teaching changes progressively in forming learning environments. In which student involve in flexible teaching-learning process via indirect contacts with teachers.

In university, a seminar library provides information services for the student regarding changing in their academic environment. Now seminar librarians have become liaison in between students, faculty members to support the effective teaching-learning and researches in universities. Maponya (2005) argued that the connection in between faculty and the student is important in a world of resource-based learning, where students are motivated to conduct more independent work and make wider use of a range of learning resources (including electronic information resources). These challenges required seminar libraries to offer ICT oriented

facilities (like remote access to information and services), according to the changing user needs, and give support to student in new academic environments.

- **Changing role of librarians**

In the era of technology, new models and technologies emerge a new role for the librarian. Bender & Fish, (2000) stated that knowledge worker i.e., librarians is the most critical profession in the existing century. And one of the most prominent and important roles of librarians in the knowledge economy is knowledge management. The advancement in the collection of information tools, techniques, and approaches has become global. As a result of this, seminar librarians are mainly required to change the way of their functioning in facilitating their student/users. This changing role demand different traits of personality and different skills and knowledge. For this purpose, the librarian attention is on diverse types of communication to integrating them in the digital environment and providing student access to the stored information i.e., course materials, online conferences, e-book and journal hubs, and many other facilities by using internet tools and services. The librarians in seminar libraries have become agents of accessibility and assimilation, linking users in digital information available licensed portals or hubs, etc. The worldwide use of information communication and technology (ICT) has constituted various challenges in the knowledge management and the drastic change in expectation and needs of students. The change in role and challenges faced by the librarian has completely changed their role, Vemra (2015) stated analyzed and comprised the following role of librarian in present digital environment in knowledge management as: "*subject expert, global information provider, resource manager, creator, preserver, navigational guide, communicator, financial manager, time managers, legal advisor, personnel manager, tech-savvy, mentor, and leader.*"

Seminar libraries cannot meet any further information needs of the university faculty and students by following traditional path librarian. Therefore, seminar librarians need to enhance their skills from collecting information to knowledge management, to understand the information and knowledge needs of the student. Librarian required to be in a position to understand external and internal knowledge to increase their skills and work efficiency. In other words, seminar librarians need to stretch out their information management roles and boost their knowledge management competencies. Foo, et al. (2002) stated that seminar librarians as knowledge workers, need to play active roles in hunting for advanced solutions to the problems involved in adapting to new settings.

METHODOLOGY

The study is descriptive in nature, and survey design was adopted to conduct the study. The population was comprised of public sector general universities of Karachi. There are only two university i.e., University of Karachi and Federal Urdu University of Arts, Science and Technology and both are included in accessible population. Since the population is not so large, the researcher has included all the librarian of seminar libraries into the sample of the present study.

The sample 46 librarians in which 42 librarians from University of Karachi and 4 librarians from Federal Urdu University of Arts, Science and Technology selected universities. The instrument for data collection was a close-ended questionnaire, comprised on four parts, the last three parts made by researchers while the first part was adapted by James, Shamchuk, & Koch (2015). The first part was respondent demographic information and their work experience and role in the previous institution where they worked. The second part was based on currently possessed librarians' skills and knowledge. The items of the second part were based on 4-degree Likert scale with options considerable skill/knowledge, considerable but a refresher would be helpful, sufficient and limited skills/knowledge. The third part asked librarian roles in knowledge management in seminar libraries. The items of the third part were based on 5-degree Likert scale i.e., strongly agree (SA), agree (A), neutral (N), disagree (D) and strongly disagree (SD). The fourth part included librarian role in facilitating research students and their research expertise and knowledge. The fourth part was based on the 3-degree Likert scale with option Yes, No, and to some extent. The data was collected by the personal distribution of a questionnaire to librarians. Pilot testing was done on 10 respondents to check reliability of data. The reliability of the questionnaire was done by Cronbach Alpha which showed .75. The validity of tool was checked by 3 expert. The collected data was analyzed by using one sample t-test.

Data Analysis and Interpretation

Demographic Information

The first part of the survey comprised on demographic information, which was analyzed by using frequency tabulation.

Table 1: *Qualification of Respondents*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MLIS	39	84.8	88.6	88.6
	MPHIL	2	4.3	4.5	93.2
	Others	3	6.5	6.8	100.0
	Total	44	95.7	100.0	
Missing value		2	4.3		
Total		46	100.0		

In this study 46 librarians participated to investigate changing role of librarian in developing knowledge management framework. Table 1 showed 39 (88.64%) respondents were MLIS, 2 (4.3%) were MPhil and 3 (6.5%) were others with 2 (4.3%) missing value.

Table 2: *Current Profession of Respondents*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Librarian	34	73.9	75.6	75.6
	Library Assistant	7	15.2	15.6	91.1
	Trainee	2	4.3	4.4	95.6
	Library Technologist	1	2.2	2.2	97.8
	Lecturer	1	2.2	2.2	100.0
	Total	45	97.8	100.0	
Missing value		1	2.2		
Total		46	100.0		

While table 2 shows majority of respondents i.e. (73.9%) were librarian and 1 (2.2%) respondent were library technicians and 1 (2.2%) respondent lecturers but acting as librarian as well.

Table 3: *How long have you worked as a librarian?*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 1 year	6	13.0	13.0	13.0
	1-3 years	9	19.6	19.6	32.6
	4-6 years	8	17.4	17.4	50.0
	7-9 years	9	19.6	19.6	69.6
	10 years or above	14	30.4	30.4	100.0
	Total	46	100.0	100.0	

Table 3 indicated that 14 (30.4%) respondents had 10 years or above experience as librarian while 6 (13%) respondents had less than 1 year experience as librarian

Table 4: *Knowledge sources available in your library*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Book	9	19.6	20.9	20.9
	Audio/Video recording	1	2.2	2.3	23.3
	Books, Journal, Conference Proceedings, Reports, AV recording & Annual Reports	1	2.2	2.3	25.6
	Conference proceeding and reports	1	2.2	2.3	27.9
	Books and journals	11	23.9	25.6	53.5
	Books, Reports & Journals	2	4.3	4.7	58.1
	Books, Annual Reports & Journals	2	4.3	4.7	62.8
	Books, Journals & AV recording	1	2.2	2.3	65.1
	Books, Journal, Conference Proceedings, Reports & Annual Reports	7	15.2	16.3	81.4
	Books, Journal, Conference Proceedings & Reports	5	10.9	11.6	93.0
	Books & Conference Proceedings	1	2.2	2.3	95.3
	Books, Journal, Report, & Annual Reports	1	2.2	2.3	97.7
	Books, Journal, Conference Proceedings	1	2.2	2.3	100.0
	Total	43	93.5	100.0	
	Missing value	3	6.5		
Total		46	100.0		

Table 4 showed librarians stated that, 11 (23.9%) seminar libraries had books and journals resources, 9 (19.6%) seminar libraries had books only, 7 (15.2%) seminar libraries had books, journal, conference proceedings, reports & annual reports, 5 (10.9%) seminar libraries had Books, Journal, Conference Proceedings & Reports, 2 (4.3%) seminar libraries had Books, Reports & Journals and Books, Annual Reports & Journals, while only 1 (2.2%) seminar libraries had Books, Journal, Conference Proceedings, Reports, AV recording & Annual Report

Table 5: *Is your job description an accurate reflection of your current responsibilities?*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	38	82.6	84.4	84.4
	No	7	15.2	15.6	100.0
	Total	45	97.8	100.0	
Missing	99	1	2.2		
Total		46	100.0		

Table 5 indicated 38 (82.6%) librarians were satisfied with their job as their current job was perfectly reflecting their job responsibilities while 7 (15.2%) librarians stated their current job was not accurate reflection of their job responsibilities.

Table 6: *Do you have a clear understanding of your responsibilities as a Librarian in your organization*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	All of the time	37	80.4	80.4	80.4
	Most of the time	9	19.6	19.6	100.0
	Total	46	100.0	100.0	

Table 6 showed 37 (80.4%) librarians had all the time clear understanding of their job description as librarian while 9 (19.6%) librarians had most of the time clear understanding of their job description as librarian.

Table 7: *What are your major work responsibilities?*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Collections	9	19.6	20.5	20.5
	Public Service and Outreach	3	6.5	6.8	27.3
	Technical and Bibliographic Service	4	8.7	9.1	36.4
	IT	2	4.3	4.5	40.9
	Administration and Management	3	6.5	6.8	47.7
	Technical and Bibliographic Service, IT & Administration and Management	1	2.2	2.3	50.0
	Collections, IT & Administration and Management	1	2.2	2.3	52.3
	Collections, Public Service and Outreach, Technical and Bibliographic Service & Administration and Management	6	13.0	13.6	65.9
	Collections & Public Service and Outreach	3	6.5	6.8	72.7
	Public Service and Outreach, Technical and Bibliographic Service & IT	1	2.2	2.3	75.0
	Public Service and Outreach, IT & Administration and Management	2	4.3	4.5	79.5
	Collections, Public Service and Outreach & Technical and Bibliographic Service	3	6.5	6.8	86.4
	Public Service and Outreach & IT	1	2.2	2.3	88.6
	Collections, Public Service and Outreach, Technical and Bibliographic Service, IT, Administration and Management	2	4.3	4.5	93.2
	Collections & Administration and Management	1	2.2	2.3	95.5
	Collections & Technical and Bibliographic Service	2	4.3	4.5	100.0
	Total	44	95.7	100.0	
	Missing	2	4.3		
Total		46	100.0		

Table 7 showed the major work responsibilities of librarians in which 9 (19.6%) respondents stated their major role in library is to just collection, while 6 (13%) respondents stated their major work responsibility is collection of books, copyright clearance & electronic licensing, Public Service and Outreach & Technical and Bibliographic Service. Whereas only 1 (2.2%) respondents stated their work responsibilities were Technical and Bibliographic Service, IT & Administration and Management; Collections (e.g. collection development, copyright clearance, electronic licensing), IT & Administration and Management; Public Service and Outreach, Technical and Bibliographic Service & IT; Public Service and Outreach & IT; and Collections & Administration and Management.

Hypotheses Testing

For hypotheses testing, researchers used one sample t-test for analysis of data. The test values of hypotheses was taken 0, due to non-directional structure of hypotheses.

- **Hypothesis 1**

Null Hypothesis 1: There is no significant relationship between librarian and their skills to facilitate student in library.

Alternate Hypothesis 1: There is significant relationship between librarian and their skills to facilitate student in library.

Table 8*: One-Sample Test on librarian and their skill to facilitate student*

	Test Value = 0						
	N	M	SD	t	df	p	MD
Brilliant skills in discovering information and literature searching etc.	44	1.93	.950	13.491	43	.000	1.932
Skill in helping to cite and referencing to students	44	1.98	1.045	12.548	43	.000	1.977
Skills to build strong relationship with researchers (students and faculty members) to collaborate them in research	44	1.52	.849	11.900	43	.000	1.523

Librarian skills was investigated by using one sample t-test on variable brilliant skills in discovering information and literature, skill in helping to cite and referencing and skills to build strong relationship with researchers. Since the standard test value is 0. For variable, brilliant skills in discovering information and literature N = 44, SD = .950, MD = 1.932 which is statistically significant with $t(43) = 13.491$, p = .000 < .05. For variable, skill in helping to cite and referencing N = 44, SD = 1.045, MD = 1.977 which is statistically significant with $t(43) =$ 12.548, p = .000 < .05. For variable, skills to build strong relationship with researchers N = 44,

SD = .849, MD = 1.523 which is statistically significant with $t(43) = 11.900$, p = .000 < .05. Since the alternative hypothesis is accepted and it has been proved that there is significant relationship between librarian and their skill to facilitate student inside library.

- **Hypothesis 2**

Null Hypothesis 2: There is no significant relationship between librarian and their knowledge to facilitate student in library.

Alternate Hypothesis 2: There is significant relationship between librarian and their knowledge to facilitate student in library.

Table 9*: One-Sample Test on librarian and their knowledge to facilitate student*

	Test Value = 0						
	N	M	SD	t	df	p	MD
Excellent knowledge of bibliographic and other finding tools in the discipline/subject	44	1.98	1.023	12.824	43	.000	1.977
Good knowledge of resources available in subject/discipline	43	1.95	.899	14.257	42	.000	1.953
Excellent knowledge of all content available on all sources	41	2.10	1.136	11.824	40	.000	2.098
Excellent knowledge of all information available on multiple format	42	2.15	1.087	13.055	41	.000	2.190

To measure librarian knowledge in facilitating students' one sample test was used on variable knowledge of bibliography, knowledge of resources available in subject, knowledge of all content available on all sources and knowledge of all information available on multiple format. The standard test value is 0. For variable, knowledge of bibliography N = 44, SD = 1.023, MD = 1.977 which is statistically significant with $t(43) = 12.842$, p = .000 < .05. For variable, knowledge of resources available in subject, N = 43, SD = .899, MD = 1.953 which is statistically significant with $t(42) = 14.257$, p = .000 < .05. For variable, knowledge of all content available on all sources N = 41, SD = 1.136, MD = 2.098 which is statistically significant with $t(40) = 11.824$, p = .000 < .05. For variable, knowledge of all information available on multiple format N = 42, SD = 1.087, MD = 2.190 which is statistically significant with $t(41) = 13.055$, p = .000 < .05. Since the alternative hypothesis is accepted and it has been proved that there is significant relationship in between librarian and their skill to facilitate student inside library.

- **Hypothesis 3**

Null Hypothesis 3: There is no significant relationship between librarian and knowledge management

Alternate Hypothesis 3: There is significant relationship between librarian and knowledge management.

Table 10: One-Sample Test librarian and knowledge management

	Test Value = 0						
	N	M	SD	t	df	p	MD
Knowledge to Identify categories of knowledge needed by users	44	1.48	.664	14.750	43	.000	1.477
Skills to capture the knowledge that staff and students need	45	1.47	.548	17.963	44	.000	1.467
Skills to process information resources for easy retrieval by users	41	1.66	.656	16.186	40	.000	1.659
Excellent knowledge to broadcast information to users on knowledge stock available for use	42	1.76	.656	17.418	41	.000	1.762
Great skills to assess the current knowledge base for the identification of gaps for filling	43	2.09	.811	16.922	42	.000	2.093
Skills to create awareness of knowledge assets available even outside the four walls	43	1.79	.914	12.842	42	.000	1.791
Skills to train your co-workers on the modern methods of information capture and service to clientele	41	1.93	.755	16.349	40	.000	1.927
Can expand your knowledge base through the application of ICT	40	1.78	.768	14.626	39	.000	1.775
Can put majority of information resources in electronic searchable formats	43	1.70	.773	14.409	42	.000	1.698

To measure librarian knowledge in knowledge management one sample test was used on variables: identify categories of knowledge needed by users, skills to capture the knowledge, skills to process information resources, knowledge to broadcast information to users on knowledge stock available for use, skills to assess the current knowledge, skills to create awareness of knowledge, skills to train your co-workers on the modern methods of information capture, application of ICT, and to put majority of information resources in electronic searchable formats. The standard test value is 0. For variable, identify categories of knowledge needed by users N = 44, SD = .664, MD = 1.477 which is statistically significant with $t(43) = 14.750$, p = .000 < .05. For variable, skills to capture the knowledge N = 45, SD = .548, MD = 1.467 which is statistically significant with $t(44) = 17.963$, p = .000 < .05. For variable, skills to process information resources N = 41, SD = .656, MD = 1.659 which is statistically significant with $t(40) = 16.186$, p = .000 < .05. For variable, knowledge to broadcast

information to users on knowledge stock available for use N = 45, SD = .656, MD = 1.762 which is statistically significant with $t(44) = 17.418$, p = .000 < .05. For variable, skills to assess the current knowledge N = 43, SD = .811, MD = 2.093 which is statistically significant with $t(42) = 16.922$, p = .000 < .05. For variable, skills to create awareness of knowledge N = 43, SD = .914, MD = 1.791 which is statistically significant with $t(42) = 12.842$, p = .000 < .05. For variable, skills to train your co-workers on the modern methods of information capture N = 41, SD = .755, MD = 1.927 which is statistically significant with $t(40) = 16.349$, p = .000 < .05. For variable, application of ICT N = 40, SD = .768, MD = 1.775 which is statistically significant with $t(39) = 14.626$, p = .000 < .05. For variable, to put majority of information resources in electronic searchable formats N = 43, SD = .773, MD = 1.698 which is statistically significant with $t(42) = 14.409$, p = .000 < .05. Since the alternative hypothesis is accepted and it has been proved that there is significant relationship in between librarian and knowledge management.

- **Hypothesis 4**

Null Hypothesis 4: There is no significant relation between seminar librarian roles in conducting research.

Alternate Hypothesis 4: There is significant relation between seminar librarian roles in conducting research.

Table 11: *One-Sample Test on Librarian role in conducting Research*

	Test Value = 0						
	N	M	SD	t	df	p	MD
Knowledge to assist researchers in conducting research	40	1.15	.483	15.057	39	.000	1.150
Knowledge of sources of research funding to assist researchers	40	1.48	.716	13.035	39	.000	1.475
Knowledge to support researchers in complying desired information	39	1.28	.560	14.309	38	.000	1.282
Skills in information discovery, literature searching etc.	41	1.20	.558	13.723	40	.000	1.195
Skills to design information literacy training (face to face and online) to meet the identified needs of different types of researchers	40	1.43	.712	12.657	39	.000	1.425
Knowledge of content (in all relevant media) available to your discipline/subject	38	1.71	1.784	5.909	37	.000	1.711
Knowledge to advise on data management and discovery, access, spreading, preservation	41	1.54	.674	14.588	40	.000	1.537
Skills to participate effectively in research projects	40	1.35	.700	12.201	39	.000	1.350

Ability to synthesize, analyze and provide discovered information	41	1.37	.698	12.522	40	.000	1.366
Awareness of current and changing local research interests	41	1.46	.745	12.579	40	.000	1.463
Ability to advise on the value and use of mobile technologies	41	1.49	.746	12.775	40	.000	1.488

To measure librarian role in conducting research one sample test was used on variables: knowledge to assist researchers in conducting research; knowledge of sources of research funding; knowledge to support researchers in complying desired information; skills in information discovery, skills to design information literacy training; knowledge of content; knowledge to advise on data management and discovery; skills to participate effectively in research projects; ability to synthesize, analyze and provide discovered information; awareness of current and changing local research interests; and ability to advise on the value and use of mobile technologies. Table 11 showed for variable, knowledge to assist researchers in conducting research N = 40, SD = .483, MD = 1.150, which is statistically significant with $t(39) = 15.057$, p = .000 < .05. For variable, Knowledge of sources of research funding, N = 40, SD = .716, MD = 1.475, which is statistically significant with $t(39) = 13.035$, p = .000 < .05. For variable, knowledge to support researchers in complying desired information, N = 39, SD = .560, MD = 1.282, which is statistically significant with $t(38) = 14.309$, p = .000 < .05. For variable, skills in information discovery, N = 41, SD = .558, MD = 1.195, which is statistically significant with $t(40) = 13.723$, p = .000 < .05. For variable, skills to design information literacy training, N = 40, SD = .712, MD = 1.425, which is statistically significant with $t(39) = 12.657$, p = .000 < .05. For variable, knowledge of content, N = 38, SD = 1.784, MD = 1.711, which is statistically significant with $t(37) = 5.909$, p = .000 < .05. For variable, knowledge to advise on data management and discovery, N = 41, SD = .674, MD = 1.537, which is statistically significant with $t(40) = 14.588$, p = .000 < .05. For variable, skills to participate effectively in research projects, Ability to synthesize, N = 40, SD = .700, MD = 1.350, which is statistically significant with $t(39) = 12.201$, p = .000 < .05. For variable, ability to synthesize, analyze and provide discovered information, N = 41, SD = .698, MD = 1.366, which is statistically significant with $t(40) = 12.522$, p = .000 < .05. For variable, awareness of current and changing local research interests N = 41, SD = .745, MD = 1.463, which is statistically significant with $t(40) = 12.579$, p = .000 < .05. For variable, ability to advise on the value and use of mobile technologies, N = 41, SD = .746, MD = 1.488, which is statistically significant with $t(40) = 12.775$, p = .000 < .05. Since the alternative hypothesis is accepted and

it has been proved that there is significant relationship between seminar librarian roles in conducting research.

Table 12: *Do you still conduct research while being on job?*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	28.3	34.2	34.2
	No	25	54.3	65.8	100.0
	Total	38	82.6	100.0	
	Missing	8	17.4		
Total		46	100.0		

To examine how frequently librarians conduct research table 12 indicated that 13 (28.3%) respondents still conduct research while working as librarian. Whereas, the majority of respondents 25 (54.3%) respondent do not conduct research.

DISCUSSION

The findings of the present study has shown librarians plays vital role in developing management framework in library and expand it to outside the four walls of library by using information technology (Ogunsola, 2011). The role of librarian in knowledge management is not only limited to determine students' need, collect information throughout the institution but also to provide students access to informative tool and help them in searching, gathering information and compiling it. Akintunde (2004) mentioned the evolvement of vocabulary of librarianship is changing from dissemination to communication, repository to data, literature to knowledge, and search to navigation. On the basis of this vocabulary enhancement librarian role has completely shifted into new dynamic role of knowledge management.

It is revealed that majority of our respondents are working as librarian in public sectors seminar libraries. In which a large portion of our sample 82.6% librarians are satisfied with their job responsibilities, and 80.4% have clear understanding of their work (James, Shamchuk, & Koch, 2015). However, the major work responsibilities of librarians were limited to only collection of books, copyright clearance and electronic licensing. Whereas only few librarians i.e. 2.2% stated that there is large expansion of role as librarian due to advancement of technology (Bender & Fish, 2000), and it is not only limited to collection and organization of books, in fact it is upgraded to referencing, instruction, programming, liaison activities with community or faculty, cataloguing, database management, interlibrary loans, acquisition, managing library systems support, network management, web development, conducting training , supervision, budgeting, marketing, facility management and organizational planning. While collecting data

it is also seen that one public sector university has only 4 opened seminar libraries. While other were temporarily closed due to renovation, absences of librarians in library, and other are permanently closed due to not having proper infrastructure and librarians in library. It was also noticed that there is a trend of using main central library by students than opened seminar libraries. Due to which it can be stated that due to central library trend, the role of librarian is only limited to collection and organization of book in seminar libraries.

The analysis also found evidence for librarian and their skills played significant role in facilitating students at library. Results revealed that most of librarians are considerable skilled-full in discovering new knowledge, searching literature, and can help to cite and referencing to students however some librarians lack these skills as their role in library is not multipurpose or dynamic due to not involvement of information technology in library.

A further novel finding of our study that 54.3% librarian does not conduct research while the 28.3% librarians only conduct research rarely. It can be said the reason for not conducting research by librarians is due to lack of research facility, lack of resources, and the nonexistence of up-dated knowledge in the library.

LIMITATIONS AND FUTURE RESEARCH

There are some limitations to this study as the present research is only constituted of seminar librarians of two public sector general universities in Karachi; it provides some inside glimpse of seminar libraries and highlights some areas for future researchers. Hence, the findings of this study are only applicable to the population of Karachi. Therefore, future researchers are recommended to explore central librarian roles of public sector universities in developing knowledge management framework and can also investigate the role of librarian in private sector universities as well in developing knowledge management framework.

CONCLUSION

The analysis leads to the subsequent conclusion that the role of librarian has developed with time. Currently, the librarian role is not only focused on collection and organization of books, but it has been much more. Today librarians are skilled full and have potential to develop a knowledge management framework inside the educational premises and can expand it outside the four walls of libraries with the help of information technology. However, it has been found majority of librarians can facilitate students in research but the large number of librarians are not actively conducting research due to scarcity of resources.

It is also observed in one public sector university the use of seminar libraries is very little than the central library. Students more actively use central library due to availability of desired knowledge and presences of librarians for guiding and facilitating them.

RECOMMENDATIONS

Based on our research study, the following recommendations are invented that

1. There is a need to develop the trend of using seminar libraries by providing it proper infrastructure for data storage and management and hiring skilled and trained librarians who can manage all sources of knowledge and facilitate students as well as department staff.
2. There is need to update multiple formats of knowledge resources in libraries.
3. The refresher and short courses in IT should be arranged for librarians to develop and magnify their knowledge management skills.
4. The government should facilitate librarians financially for conducting research while working as a librarian.
5. Research workshops and seminars should be arranged for librarians so they can also help students in research.

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