Identification, Extraction, Organization and Sharing of Personal Knowledge: Using Grounded Theory

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Abstract

This study aimed at evaluating the feasibility of identification, extraction, organization and sharing of personal knowledge of Kerman public librarians. This study was a qualitative one based on grounded theory. The research population consisted of all knowledge and information science experts in public libraries in Kerman and snowball sampling was used to select participants. In-depth interview was the data collection tool in this study. In order to ensure the validity and reliability of this research, Lincoln and Guba's evaluative criteria was adopted and data collected from the interview, were coded and analyzed. Personal knowledge is shared through group discussions, question and answer meetings with experts and elites or even sending an email to co-workers. Knowledge and information science experts in public libraries in Kerman have no definite tool to be always used by all for identifying of personal knowledge. The method of extraction of personal knowledge mostly depends upon the manner of organization of personal knowledge. Knowledge and information science experts' success in personal knowledge management depends on letting out the knowledge available in their minds. In this regard, knowledge sharing which includes the dissemination or transfer of knowledge from one individual to a group or an organization is the fundamental factor for achieving goals and filling knowledge gaps in organizations. Therefore, it is the task of public libraries to promote the culture of personal knowledge sharing, create an encouraging and rewarding environment and establish trust among knowledge and information science experts at work.

Keywords: Extraction of Personal Knowledge, Sharing of Personal Knowledge, Organization of Personal Knowledge, Identification of Personal Knowledge, Public Libraries, Kerman, Personal Knowledge Management.

Introduction

In recent years, good discussions have been devoted to the importance of knowledge management in various societies. Knowledge management and its relevant systematic concepts are regarded as the important components of organizational survival leading to maintaining the competitive position. The employees who have gained knowledge and skills

over time are considered as a valuable organizational capital, however, if such knowledge is not well circulated, this capital will be of no great value (Poursarrajian, Owlia & Soltani Aliabadi, 2013). The previous Just research or studies have shown that knowledge is of strategic value only if it is shared, combined and applied in a distinctively unique way (Nemati-Anaraki & Nooshinfard, 2014). Therefore, knowledge transfer and dissemination provide opportunities to maximize the power of organization to fulfill the requirements, enable efficient problem-solving and gain competitive advantage (Poursarrajian, Owlia & Soltani Aliabadi, 2013). In this regard, knowledge management is a modern approach to management, which is the secret of success in organizations in the 21st century and is divided by experts into two categories of organizational knowledge management and personal knowledge management.

Personal knowledge management is supposed to help combine information resources, improve the efficiency and enhance personal competitiveness. By virtue of personal knowledge management, all sorts of information can be exchanged and an easy access is provided to valuable information (Zhou & Fink, 2003). Personal information management, which is a very close concept to personal knowledge management, is introduced for tools whose function is to focus on organizing, searching and retrieving personal information. In this way, personal information management and defined personal knowledge management as an effort to let computers be extensively used to help information explosion management (Jackson, 2005). Knowledge management should be integrated with daily tasks and activities of the organization's employees so implicitly and explicitly that they don't feel like they are involved in a particular and new activity like knowledge management (Jones, 2009); as a result, the cooperation among employees to share knowledge is enhanced and knowledge management is integrated with other business activities. This is not possible without the application of personal knowledge management (Bishop et al., 2008). Organizations focus and invest more on the true potential of their employees rather than on technological solutions and processes, they will understand the real value of knowledge management and will be able to utilize it (Pauleen, 2009).

Since libraries are considered as the centers of knowledge production and dissemination, they are, more than any other organization, in need of creating and implementing knowledge (Sadatmoosavi, Tajedini, & Moghadam, 2010). This will locate libraries in a competitive environment and will promote their scientific status. Public libraries are not an exception to this rule since they must also make an attempt to preserve their position in today's knowledge based competitive world. Moreover, the personal knowledge of individuals has entered a scientific cycle nowadays. The sharing, dissemination and utilization of personal knowledge, which are usually neglected, can be effective in the process of becoming more knowledge-based.

However, public libraries encounter a number of challenges in knowledge management and administration; thus, the present study is aimed to evaluate the feasibility of Identifying, extracting, organizing and sharing of personal knowledge among knowledge and information science experts in public libraries in Kerman via a qualitative approach and based on grounded theory. Therefore, a step is taken to enhance their personal knowledge in such way

that useful and proper solutions are provided to improve knowledge management and the performance of experts as well as public libraries in Kerman.

It is worth mentioning that the selection of four categories in research questions was based on the theory by Jashapara (2004) in explaining knowledge management process, which was the theoretical framework of this study. In this theory, the mentioned categories were deemed necessary to complete the process of personal/organizational knowledge. Evidently, if these categories are derived from research results, it can be concluded that this process can be extended to personal knowledge of the research population.

Literature Review

In a study Noorrahmani, Mohamadi, Naseri Jahromi, and Rahmani (2014) indicated that faculty members' average perception of organizational support was lower than desirable level but higher than minimum level. Faculty members' average personal knowledge management skill in all dimensions was lower than desirable level but higher than minimum level and just creative and perception skills were higher than desirable level. There was a significantly positive relationship between faculty member's perception of organizational support and all dimension of personal knowledge management and faculty member's perception of organizational support was a significant and positive predictor of personal knowledge management

Akhavan, Jafari, Atashgah and Abasaltian (2013) carried out a study for Survey relationship between Psychological Traits of Individuals with Aspects of Personal Knowledge Management. All personality traits had a significantly positive relationship with personal knowledge management except nervousness. Nervousness had a significantly negative relationship with personal knowledge management. Moreover, the findings revealed that there was a significant relationship between five dimensions of personality and four dimensions of personal knowledge management.

Mittal (2008) showed that in a study modern organization, for being characterized by diverse local practices and for the increasing salience of professional work, is a complex mosaic of situated knowledge, grounded in process. Enabling organizations to capture, share and apply the situated knowledge is regarded as fundamental to competing in the knowledge economy. This study concentrated on various knowledge activities of faculty members to understand the extent of the influence of information systems on these activities and the way such activities contribute to value creation and knowledge management. The results of this study proved the presence of certain type of knowledge behaviors facilitating in knowledge management.

Based on the investigations, there has been few studies dedicated to personal knowledge particularly with regard to libraries and most studies have investigated organizational knowledge and knowledge management. Nevertheless, the studies on personal knowledge were merely some investigations to state the viewpoint of research samples on personal knowledge and their abilities in personal knowledge. The main difference between the present study and previous studies is that this study is an evaluation of the feasibility of identification, extraction, organization and sharing of personal knowledge in knowledge and information

science experts in public libraries in Kerman which has not been taken into account in any other study.

Research questions

This research is also intended to provide the answer to the following questions:

1. Is it feasible to identify personal knowledge of knowledge and information science experts in public libraries in Kerman?

2. Is it feasible to extract personal knowledge of knowledge and information science experts in public libraries in Kerman?

3. Is it feasible to organize personal knowledge of knowledge and information science experts in public libraries in Kerman?

4. Is it feasible to share personal knowledge of knowledge and information science experts in public libraries in Kerman?

Methodology

This study was a qualitative one based on grounded theory because qualitative research is an approach in which the findings are not obtained through statistical methods or quantitative tools. Grounded theory is a qualitative research approach not committed to any specific data, research strategy or particular interests; in fact, it is derived from the collected data (Zakai, 2002). Grounded theory which is a strategy of qualitative research doesn't infer theories, hypotheses and premises based on previous assumptions, researches or theoretical frame works, rather, these are achieved directly from data (Corbin & Strauss, 2008).

The research population consisted of professional librarian in public libraries in Kerman. Given the great size of research population and the nature of research method, sampling was inevitably required. In sampling for qualitative research, the number of interviewees depends upon theoretical saturation; in this regard, whenever the researcher comes to the conclusion that the provided answers or the interviews with informed people are so similar that the answers or the interviews are repeated and no new data can be derived, the number of interviews is deemed sufficient and interviews are ended (Mohammadpour, Sadeghi, & Rezaei, 2010). Selection of participants in qualitative researches depends on the research objective (Ranjbar et al., 2012). In this research, after analyzing different sampling methods in qualitative researches, sequential snowball sampling was used to select participants from among knowledge and information science experts in public libraries in Kerman and the interview procedure started from the head of Kerman central library. After interviewing 15 experts of knowledge and information science in public libraries in Kerman, the researcher reached theoretical saturation and then the interviews ended up.

Table 1

The details of the research participants

Number	Participant	Gender	Work experience
1	Knowledge and information science expert number one	Female	12
2	Knowledge and information science expert number two	Male	7
3	Knowledge and information science expert number three	Female	5
4	Knowledge and information science expert number four	Male	6
5	Knowledge and information science expert number five	Male	5
6	Knowledge and information science expert number six	Male	4
7	Knowledge and information science expert number seven	Female	8
8	Knowledge and information science expert number eight	Male	13
9	Knowledge and information science expert number nine	Female	15
10	Knowledge and information science expert number ten	Female	7
11	Knowledge and information science expert number eleven	Male	7
12	Knowledge and information science expert number twelve	Female	8
13	Knowledge and information science expert number thirteen	Male	5
14	Knowledge and information science expert number fourteen	Female	7
15	Knowledge and information science expert number fifteen	Female	3

In this study, in-depth interview was the data collection tool, which is one of the most common data collection methods in qualitative research. In-depth interview is based on the belief that people are the best sources of information about events and phenomena through sharing their experiences. If different people are interviewed on a certain event or phenomenon, diverse viewpoints can be collected about that topic.

In order to ensure the validity and reliability of this research, Lincoln and Guba's evaluative criteria (1985) were applied which is an equivalent to validity and reliability in quantitative researches. In this regard, three criteria of credibility, transferability and dependability were taken into account. In order to fulfill each criterion, the following tasks were performed:

✓ Credibility: enough time was spent on research, interview data were confirmed by interviewees after implementation, research process was verified by several experts, uniform coding was ensured by using two other encoders for coding a sample of interviews, scope notes and reminders were included during the interview.

✓ Transferability: some key researchers who did not participate in the study were asked for their opinions on research findings and confirmed them.

✓ Dependability: all details in all steps of doing research and taking notes were recorded.

Data collected from the interview, were coded and analyzed. In qualitative research, there is no fixed method for data analysis and qualitative researches are based on mental and interpretive approaches. Qualitative researchers are right in the middle of data analysis process and are entirely involved in research process. The methods of analyzing qualitative

data are probably as varied as the number of qualitative researchers (Mohammadpour et al., 2010).

In order to analyze the collected data and develop a theory, Theoretical Coding was applied. This method was considered appropriate for being inductive and exploratory. Furthermore, through analyzing the text to precise components and concepts, this method would make it possible to define a theory or model (Corbin & Strauss, 2008; Locke, 2002). In this method, with a constant check via Strauss and Corbin's grounded theory approach (2008), coding was done in three stages of open, axial and selective coding. First, after copying and saving the data, the appropriate codes were assigned to various parts of data and then classified as apparent categories via open coding. Then, axial coding was performed and finally, in selective coding, main categories were selected and linked to other categories.

Results

Since this study was a qualitative one, the theoretical framework included the components required for a grounded theory compatible with Strauss and Corbin's (1998) theory. In the first stage of analyzing the findings, the open coding, interview texts were classified and investigated to fractionate the information into information categories; data were divided into separate fractions, scrutinized and compared and contrasted based on their differences and similarities. Based on the data collected from interviews with knowledge and information science experts in public libraries in Kerman, 74 conceptual statements were extracted. In the second stage i.e. axial coding, the data which were fractionated during the coding process were again put together and more relevant categories were selected from the relevant codes and notes. In this stage, from among conceptual statements of the first stage, 19 conceptual statements relevant to the interviews with knowledge and information science experts in public libraries in Kerman were detected. In selective coding, the core category was determined and linked to other categories. Furthermore, the derived information categories were classified into four groups, which will be explained in theoretical framework. In this stage, four categories of interview analysis were identification of personal knowledge, organization of personal knowledge, extraction of personal knowledge and sharing of personal knowledge. The details of coding stages on interviews with knowledge and information science experts in public libraries in Kerman are depicted in figure 1.

Open coding stage: 74 conceptual statements

Knowledge acquisition (A_2), knowledge discovery (A_4), problem encounter (A_6), memories (A_7), need (A_9), knowledge utilization (A_{11}), daily teachings (A_{12}), information access (A_{13}), need fulfillment (A_{15}), opinion statement (A_{18}), efficient use of time (A_{21}), personal creativity (A_{23}), occupational development (A_{24}), income acquisition (A_{26}), job creation (A_{28}), information resource access (A_{29}), useful reading (A_{31}), in-service training (A_{32}), nurturing known information (A_{33}), personal interests (A_{35}), colloquial communication (A_{36}), note taking (B_1), timing (B_3), providing secondary memory (B_4), recording personal skills (B_6), information personal equipment (B_7), establishing priorities (B_9), information integration (b_{11}), proper analysis (B_{13}), relationship discovery (B_{15}), division of knowledge (B_{16}), systematic information (B_{17}), notebook (B_{18}), knowledge classification (B_{20}), checklist (B_{23}), organized signs (B_{25}), use of personal abilities (B_{27}), information utilization (B_{29}), purposeful knowledge representation (C_5), information analysis (C_8), use of previous experience (C_9), responding needs (C_{11}) , quick access (C_{13}), random retrieval (C_{15}), information search (C_{17}), information assessment (C_{19}), finding information (C_{21}), reviewing known information (C_{22}), information acquisition (C_{24}), remembering known information (C_{26}), personal known information (C_{27}), social knowledge (C_{29}), discussion and idea exchange (D_1), fulfilling others' needs (D_3), social networks (D_4), communication facilitation (D_6), consulting with others (D_{10}), information promotion (D_{12}), current awareness (D_{15}), interaction enhancement (D_{16}), conversation (D_{17}), cooperation improvement (D_{18}), idea exchange (D_{19}), research objective realization (D_{20}), sharing known information (D_{23}), satisfaction (D_{25}), exploiting (D_{27}), cyberspace (D_{29}), experience transfer (D_{30}), practical training (D_{32}), cheerfulness (D_{34}), self-confidence enhancement (D_{38}), unique experiences (D_{39}), personal communication (D_{40}).

Axial coding stage: 19 conceptual statements

Knowledge application (3 categories), knowledge discovery(3 categories), perceiving information resources and their application(5 categories), use of educational facilities(4 categories), information preservation (4 categories), knowledge coherence (6 categories), information ranking (4 categories), knowledge coding (4 categories), indexing (5 categories), information access (4 categories), information provision (5 categories), information evaluation (6 categories), knowledge retrieval (2 categories), extracting known information (3 categories), sharing specialized information (4 categories), communication media (4 categories), personal interactions (3 categories), information communication (2 categories), emotional engagement (3 categories).

Selective coding stage: 4 categories

personal knowledge identification, personal knowledge organization, personal knowledge extraction, personal knowledge sharing

Core category: personal knowledge management

Figure 1. flow of data management concerning knowledge and information science experts in three coding stages

In this section, the statements derived from analysis of interviews with knowledge and information science experts in public libraries in Kerman with accordance to 4 categories resulted from data analysis are explained in detail.

Identification of personal knowledge in knowledge and information experts in public libraries in Kerman

The analysis of interviews suggested that there are a number of diverse and flexible procedures to identify personal knowledge and acquire it. Each of the experts in knowledge and information science can detect and acquire personal knowledge in skills, experiences and knowledge documents after fulfilling daily tasks and routines. Moreover, personal knowledge identification is a vital and fundamental factor in implementation of knowledge management in organizations since identification of personal knowledge is not merely a personal issue but an organizational one. Identification of personal knowledge in knowledge and information science experts leads to optimal and efficient knowledge application in the minds of experts and results in considering such knowledge services and competences to respond the needs of various users in public libraries. The results of analysis of interviews indicated that the experts Nevertheless, they have no particular tool to identify their knowledge and when encountered with problems in different occupational contexts as well as in their daily life or when faced with new different conditions, they get aware of their personal knowledge and make use of it. According to the viewpoint of knowledge and information science experts in public libraries in Kerman, no definite way can be adopted to constantly identify personal knowledge since the phenomena of the world are considerably diverse and undergo continuous change. In fact, individuals discover their personal knowledge and identify it whenever they come to a new and unknown problem or condition not previously experienced. In each condition, to identify personal knowledge, they resort to a different method or tool which is only specific to that condition. Furthermore, knowledge identification would lead to the identification of experiences and skills of individuals in performing tasks and these skills and experiences are applicable to a person and make him/her improve only when accompanied with awareness. As a matter of fact, this awareness makes people aware of changes in their way which helps them find solutions and reminds them that the recognition and identification of knowledge is efficient only if this knowledge turns into awareness; awareness is the operational and efficient strategies. Participant number 3 said, "It can simply be concluded that lack of awareness in individuals makes them perform not so well in their interactions and communication. These are the same people who perform poorly as managers and never help organizations improve. On the contrary, awareness makes people establish strong relationships with mutual benefits and sympathy. Relationships with such characteristics resulted from correct interactional techniques encourage altruism in organizations and benefit all beneficiaries".

The interpretation of interviews suggested that personal knowledge is a type of person's expertise necessary in lots of situations, which depends upon the nature of tasks and interactions among people. If fulfilling a task requires specialized expertise, the expert will be able to utilize his/her knowledge in solving it. Personal knowledge means that people be able to accept more responsibilities and solve personal and organizational problems through learning skills and new careers. Personal knowledge refers to various talents of a person to access new markets and modern technologies in need of expertise and skill. Personal knowledge refers to the reasonable and legitimate beliefs of an individual used to justify personal interests. Personal knowledge refers to proposing solutions to respond the needs of

users rapidly instead of making use of predetermined rules and regulations to solve problems in a guided hierarchical manner. They have also compared personal knowledge with organizational knowledge in their opinions. Personal and organizational knowledge are two distinct yet mutually interdependent concepts. Personal knowledge is usually expressed through creativity and self-expression. Organizational knowledge is reflected in productions and services provided by the organization to the customers. Personal knowledge is a property and capital leading to enhancing the knowledge of the employees and creating organizational knowledge. Since knowledge is partly internalized by the organization and partly by the individuals, the control of knowledge activities is difficult on the contrary to productive activities. This discrepancy between personal knowledge and organizational knowledge emphasizes the need for different management strategies. Identification of personal knowledge is the process of creating new knowledge or replacing and improving the existing personal knowledge by means of personal and social relationships as well as organizational cooperation. This process can take place in individual and organizational levels consisting of different parts and stages through which and based on sociability, internalization, externalization and integration processes, the new knowledge is created explicitly and tacitly. People's reserves facilitate the process of identifying and creating personal knowledge. Concerning this, the expert number 10 stated, "When I understand I can boost job creation and income generation and improve in my career, I recognize to have talent and knowledge in this field and I will accordingly identify my personal knowledge". Knowledge and information science expert number 6 also believed, "Each person moves based on his/her interests and knowledge is gradually created based on the activities and tasks, thereafter, a person perceives such knowledge in him/herself".

Organization of personal knowledge in knowledge and information experts in public libraries in Kerman

The investigation of the resulted categories and analysis of interviews with participants demonstrated that knowledge and the experts organized their personal knowledge in various ways. What is of paramount importance regarding the organization of personal knowledge is that the manner and method of organization and its objectives are diverse for different for different experts. From the viewpoint of knowledge and information science experts, organization is in fact facilitation of access to controlled set of information. Knowledge organization makes it possible to process knowledge easily. Organization is the process of regular updating and storage of knowledge, which is of potential value for the future. The prerequisite of knowledge organization is being aware of scientific growth and development. Knowledge organization includes the description and organization of contents, characteristics and objectives of documents in such a way that they become accessible to those who are searching for these documents or their hidden messages. Knowledge organization includes all sorts and methods of indexing, abstracting, ranking, document management, bibliographies and creating bibliographic and textual information databases to retrieve information. Knowledge organization is aimed at facilitating the retrieval of and access to information, which is the fundamental function of knowledge, and information science to the society and its history goes as far as the history of writing and emergence of the first documents. Just as

tools and machines are regarded as the developed form of human muscles enabling individuals to perform tasks with more power, knowledge organization is also the developed form of human mind particularly the memory and mental techniques to retrieve information. Moreover, knowledge and information science experts do their knowledge organization by means of two types of activities: first, by selecting the resources, from among all knowledge and knowledge resources available, which are worth being preserved i.e. selecting knowledge, which is more updated and usable. Second, by selecting from among such selective knowledge the one, which can be classified and adjusted easier. In addition, knowledge organization is a very important issue and has received more attention with recent digital developments. It is due to the point that previously stored knowledge might become outdated every day and lose its usability and be rapidly replaced by new knowledge organization. From the point of view of a number of knowledge and information science experts, subject is of great significance in organization of knowledge and information as well as in providing access to them. In fact, subject searching has been considerably increased. Other experts believe that several descriptive statements can be made for organization of personal knowledge, potentially, a characteristic or a set of characteristics can be utilized as a description to create various sets. Usually, those information elements being adopted to organize personal knowledge must be sufficient to achieve predetermined objectives and must exclude all unnecessary elements. However, every knowledge and information science expert has his/her own personal criteria to organize knowledge, which are different from those of other experts. The elements deeming unnecessary for one knowledge and information science expert might be considered as the main elements of knowledge organization for another knowledge and information science expert. Some knowledge and information science experts also use their occupational experiences to organize knowledge. For example, a number of knowledge and information science experts make a list of topics in which they are interested or are skillful and organize personal knowledge by card catalogs with each entry representing a topic. Some other knowledge and information science experts in public libraries of Kerman store and reserve knowledge in their mind and memory randomly. In other words, these experts have no particular method to organize knowledge and have no purpose in mind. Just when encountered with problems or when faced with new conditions, they randomly and based on their experience, gain access to the required knowledge. Participant number 7, for instance, said, "I store and organize my personal knowledge in my mind and memory. In fact, I have no particular plan to organize it".

Some librarians also make use of a notebook to record important points, which can easily be forgotten or cannot be memorized. Participant number 10 said in this regard, "I classify my knowledge and experiences in my mind and sometimes write them in a notebook and order them alphabetically so that I can easily retrieve them when required".

Extraction of personal knowledge in knowledge and information experts in public libraries in Kerman

Data collected from the interviews by knowledge and information science experts in public libraries in Kerman were analyzed. The results of data analysis showed that the extraction and retrieval of personal knowledge in knowledge and information science experts

depends upon the method of knowledge organization i.e. knowledge search and extraction must be done in accordance with knowledge organization method. In this stage, knowledge and information science experts must extract whatever they have identified and organized and prepare them for utilization. Without efficient extraction and representation of knowledge, knowledge management will not be objectively realized. The eminent experts and knowledge workers might create valuable things every new day; if these teachings and knowledge are not extracted rapidly, promptly and systematically, they will be forgotten after a while and the organization will run into a problem named organizational forgetting. Extracting knowledge as well as appropriate and valuable experiences from experts and projects and exploiting such experiences and teachings are the main tasks of knowledge extraction. Knowledge extraction leads to filling knowledge gaps among individuals and organizations. People must extract knowledge whenever they are in need of skill and experience to arrive at new solutions for solving personal and organizational problems. Knowledge extraction requires important preliminaries and one of the most important ones is measuring tacit and explicit knowledge whose output is knowledge vacuum. Knowledge extraction and retrieval is the process of interpretation of knowledge in a specific field with the help of which an individual carry out the activities in that field. It also includes exchange and transfer of expertise from a specific knowledge resource. The objective of knowledge extraction is developing usable and applicable knowledge packages. In order for knowledge extraction and analysis, one needs to be focused on conceptual understanding of knowledge so as to be able to explain the required knowledge and use it appropriately. To wit, knowledge and information science experts must be familiar with knowledge extraction and its explanation since personal knowledge explanation must be done in detail to fulfill the needs. It must at the same time be general so that it can provide a solution for responding the needs and fulfill them with regard to various dimensions. The first step in retrieval and extraction of knowledge is the definition and description of the relationship between parts and components of the organized knowledge and informational needs in knowledge and information science experts. Now the following questions are posed: Is there this feasibility for knowledge and information science experts in public libraries in Kerman? Are they trained to apply these principles for knowledge extraction? Knowledge and information science experts are the intellectual asset in libraries whose proper personal knowledge management can lead to the efficient implementation of knowledge management in library organization. As it was previously mentioned, since knowledge and information science experts in public libraries in Kerman adopt different and individually unique methods to organize their knowledge, they also resort to various distinguished methods to retrieve it. They might take these methods based on their own organization method or might have become familiar with them in their academic education or in-service trainings. Participant number 11 considered the proper extraction of personal knowledge as a useful method in work process whose result is a representation of work procedure and the relationship among human resource activities, information and organizational objectives in a coherent and absolutely clear way. The interpretation of interviews revealed that holding meetings or seminars in organizational units and making it possible to hold conferences in organization or out of it are effective and useful attempts to extract and represent personal knowledge, which is remained tacit in the minds of public

libraries staff. Participant number 8 believed, "With taking certain measurements like holding seminars, some part of personal knowledge of knowledge and information science experts can turn into organizational knowledge since when knowledge is expressed and stated it is not hidden anymore and if it is recorded it can be published as a document available to all. Therefore, if it is possible to record audio or video of speeches, it can be claimed that organization is also turning personal knowledge into organizational knowledge through proper retrieval and extraction of personal knowledge". Hence, extraction of personal knowledge in knowledge and information science experts can be a very important stage in knowledge management in libraries.

Sharing of personal knowledge in knowledge and information experts in public libraries in Kerman

The analysis of collected data revealed that sharing of personal knowledge in knowledge and information science experts in public libraries in Kerman is done with different objectives and methods. The feasibility study of knowledge sharing in knowledge and information science experts demonstrated that few of knowledge and information science experts have no tendency to share knowledge. For example, participant number 7 said, "I share my personal knowledge only with my spouse and my child for the personal knowledge that I have acquired is my source of income. Therefore, I cannot share the source of income I have acquired with others. I feel knowledge sharing is a damage to my income". Other knowledge and information science experts, nonetheless, are willing to share their knowledge. This depends on their knowledge and experience, personal characteristics and interpersonal relationships among knowledge and information science experts. For example, those with knowledge that is more relevant are more able to learn, integrate and use the shared knowledge. The investigation of knowledge sharing behavior in knowledge and information science experts in public libraries in Kerman indicated that knowledge and information science experts exchange their thoughts and experiences both in their areas of expertise and non-expertise and have internal and external motivations for it. Personal knowledge sharing which is the dissemination or transfer of knowledge from one individual to another individual or organization is the fundamental factor for achieving personal and organizational goals. In this competing world with dynamic environments, the expertise and skills of people with diverse talents are utilized so as to gain access to new markets and modern technologies. Nowadays, in order to deal with unstable markets and fulfill the requirements of users, knowledge and information science experts encounter problems regarding rapid provision of services; thus, it is necessary for knowledge and information science experts to be clever and flexible enough to manage knowledge effectively. In order to achieve this, knowledge and information science experts need to share knowledge. For the efficient knowledge sharing, one needs to be considerably flexible. In this regard, knowledge sharing process involves a range of activities including learning and management of personal knowledge. This enhances one's knowledge and leads to knowledge creation. In order to achieve his/her goals, every individual makes use of a knowledge system, which is held by other individuals in their minds, of course, if they are willing to share this knowledge. Otherwise, certain costs are expected due to the repetition

of some decision-making processes and failure to use the experiences and decisions of others appropriately. Therefore, people attempt to collect knowledge from one another.

Knowledge and information science experts in public libraries in Kerman believed that personal knowledge is shared in order to optimize the relationship among employees and the management. Although knowledge can be acquired by individuals, in order for the knowledge to be useful, it needs to be shared among all group embers. Participant number 10 stated in this regard, "in knowledge management texts, it is strongly emphasized to promote organizational culture for knowledge sharing. One of the chief obstacles to personal knowledge sharing in organizations is organizational culture". According to this expert, in the organizations where the maintenance and promotion of job status depends upon knowledge and the acquired knowledge is source of power, sharing of personal knowledge means a risk to job status. The organizational culture needs to be promoted so as to ensure the employees that their ideas are valuable and they don't need to worry about having wrong ideas, losing their reputation or making other employees angry.

Discussion and conclusion

In each condition, a different method or tools is utilized to discover this knowledge, which is specific to that condition. In other words, there is no specific tool for personal knowledge identification to be always used by all. Moreover, the experts believed that personal knowledge depends fundamentally on the employees in organization, those who create knowledge and share it with others in their interactions. In fact, personal knowledge is the basis for knowledge creation in organizations. As a conclusion, all knowledge and information science experts having taken part in the interviews attempted to find ways to represent their personal knowledge and possess it. Furthermore, they tried to preserve the values of their knowledge in the dynamic ever-changing environment and to overcome the inevitable changes of this environment. Knowledge and information science experts in public libraries in Kerman believed that personal knowledge is expanded by pass of time through the experiences of training courses, reading books and informal education. Personal knowledge includes learnings and lessons from school and university, awareness, judgement, general rules and inspiration. To wit, personal knowledge is particular unique information placed after personal information in knowledge process model. The results of this research were not compatible with those of the study by (Noorrahmani et al., 2014) since they showed that average personal knowledge management skill in faculty members of human science department of Islamic Azad University of Bandar Abbas was lower than desirable level but higher than minimum level.

Based on the results of the analysis of interviews, the extraction of personal knowledge in knowledge and information science experts in public libraries in Kerman depends on their manner of organization of personal knowledge. In other words, each participant extracts knowledge with accordance to the objective and manner of knowledge organization, hence, knowledge search and extraction must be done based on knowledge organization. Personal knowledge extraction in knowledge and information science experts in public libraries in Kerman involves some processes through which knowledge is found and needs are created so as to represent the need for a particular knowledge; to wit, this particular knowledge is

discovered. Through this process, the required knowledge is made available to people. Knowledge, which is extracted from the mind of knowledge and information science expert, must be developed based on standard rules and patterns so that it can be applicable for final user and be easily preserved. Personal knowledge extraction is an important branch of personal knowledge management since as people get retired or organizations become privatized, a great volume of valuable knowledge of the organization, which is in the minds of people, goes out of the organization. Knowledge extraction is the best solution to this problem. The personal knowledge in knowledge and information science experts in public libraries in Kerman can be extracted or codified as the prerequisite knowledge before doing the work, the required knowledge during the work, the knowledge resulted after the work and the general knowledge without a direct link to a particular work procedure. A great deal of information about users, information resources and etc. is stored in the minds of knowledge and information science experts. Such knowledge, however, is not utilized and stays hidden. If it is properly recognized and extracted, this knowledge can be extremely useful in public libraries and ideal services can be provided to users. Not unexpectedly, it is up to the knowledge and information science experts to analyze and interpret the information and recognize if the extracted knowledge is relevant to the needs and requirements of users. Appropriate extraction of knowledge in knowledge and information science experts makes it possible to gain access to users' information and leads to successful management of the relationship with users resulting in the improvement of library activities. Accordingly, user satisfaction is achieved and the relationship with users is extended and expanded and better services are provided. The results of this study were not compatible with those of the study by (Verma, 2009). Verma demonstrated that personal knowledge management programs are tied to organizational objectives including improved performance, competitive advantage, innovation, developmental processes, lessons learnt transfer and the general development of collaborative practices. On the contrary, in public libraries in Kerman, extraction of personal knowledge, which is an important stage in personal knowledge management, is usually done to achieve personal objectives and is rarely in conjunction with organizational objectives.

The results of analyzing the feasibility of organization of personal knowledge in knowledge and information science experts in public libraries in Kerman suggested that they organize their personal knowledge in different ways. Knowledge and information science experts need to identify their personal and match it with their needs. This knowledge should not be confined in their minds like still water. It is the organization and maintenance of knowledge, which clarifies where to preserve what knowledge, and for how long so as to maximize retrieval. What is identified as personal knowledge in knowledge owners must be logically ordered. This helps preserve the ideas and information and is focused on the secure exchange of information. Knowledge and information science experts can organize and represent their personal knowledge through maps, instructions, methods and even libraries in order to gain access to the available knowledge elements. The knowledge structure developed in the first step of personal knowledge management can turn into an appropriate basis for rearranging, constructing and representing knowledge with slight modifications. Knowledge organization is of great use in precise retrieval of information, therefore, it can be applied to improve personal knowledge management. Organization of personal knowledge in knowledge

and information science experts in public libraries in Kerman is a thought process through which the experts express the explicit knowledge concepts and organize these concepts in such a way that knowledge productions are produced to provide a comprehensive image of it, which can be constantly developed. As a result, the process of organization of personal knowledge helps knowledge and information science experts organize the diverse and scattered information identified in the first stage. This prevents the overflow of such diverse and scattered information and facilitates decision-making processes aimed at solving problems and providing knowledge. The results of this research were compatible with those of the study by Cheong and Tsui (2010). They indicated that among M.Sc. students in faculty of engineering in Alzahra University, preventing the overflow of personal information, awareness of searching techniques and the need for training personal knowledge management were all above average. Knowledge and information science experts in public libraries make use of tools like personal computer, flash memory, CD, email and etc. to preserve and store their personal knowledge.

The analysis of the results of interviews with knowledge and information science experts in public libraries in Kerman revealed that one of the objectives of personal knowledge management is to ensure the existing knowledge is collected in people's minds and shared thereafter. Thus, their tendency for sharing knowledge as well as their interactivity is enhanced and they get used to providing their opinions, ideas and experiences. The system of personal knowledge sharing is composed of organized structure of knowledge, databases of documents and resources and the relationship among those who share knowledge. Therefore, professional knowledge and information science experts choose to adopt knowledge sharing. Knowledge sharing also involves social processes and informal activities besides formal ones (Tajedini, Azami, & Sadatmoosavi, 2018). In other words, the manner through which knowledge and information science experts in public libraries process and share knowledge depends upon their experience, creativity and personal expertise. Based on such experience and expertise, knowledge and information science experts decide who to interact with and what knowledge to share. The transfer of ideas and information, which is related to providing others with information via an appropriate and transferable plan, is one of the most important skills of personal knowledge management. Such collaboration in sharing ideas and information and their transfer is known as knowledge sharing which is the most important component of personal knowledge management. The results of this research were compatible with those of the study by (Mittal, 2008) who showed that modern organization is a complex mosaic of situated knowledge grounded in process since it is characterized by various local practices and also by the increasing salience of professional work.

Generally, explaining the theoretical framework of the research and data derived from interviews demonstrates the relationship among categories extracted from encoding revealed codes. As a result, a theoretical paradigmatic model (Figure 2) is presented for personal knowledge management among knowledge and information science experts in public libraries in Kerman.
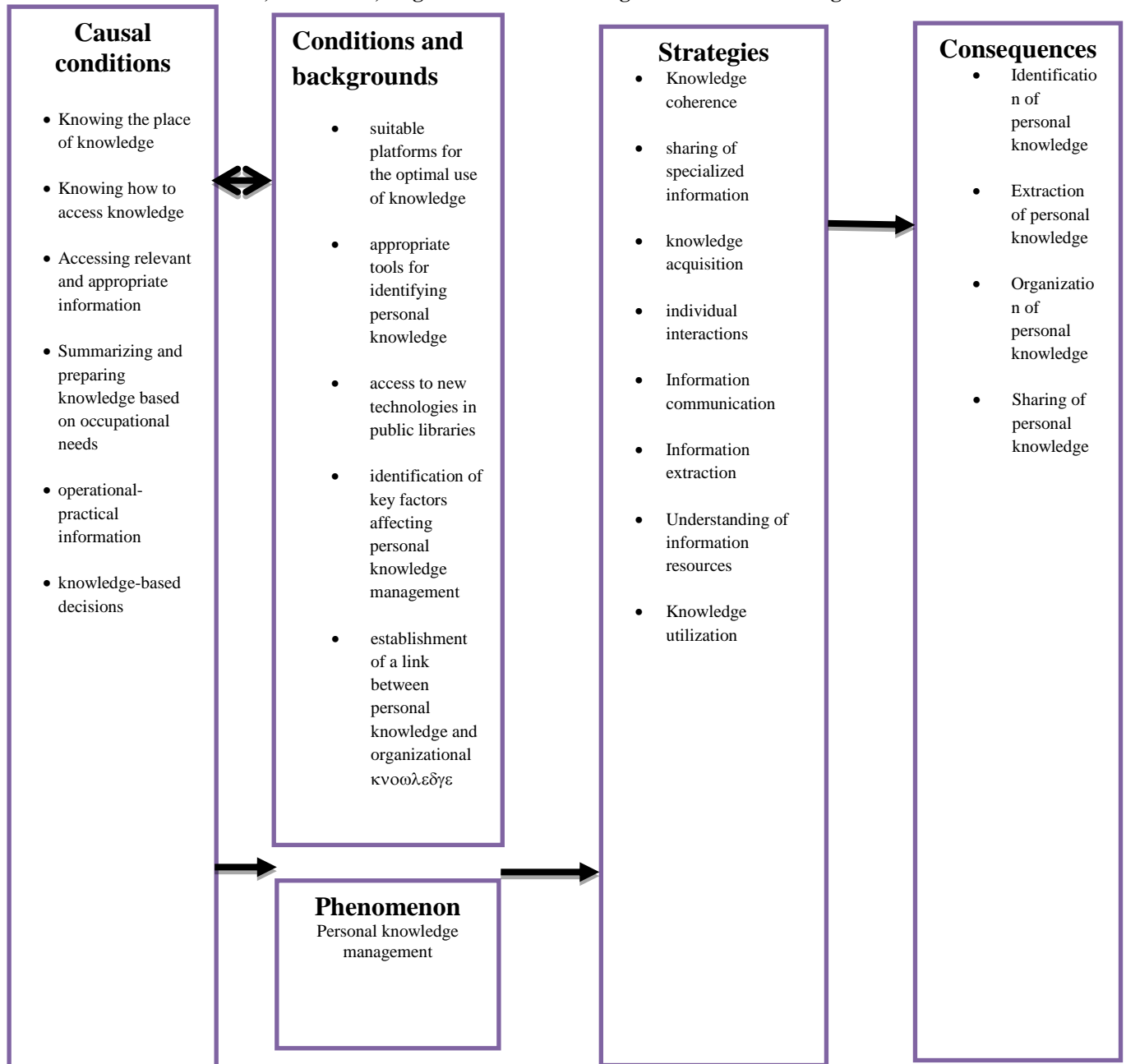
Causal conditions	**Conditions and backgrounds**	**Strategies**	**Consequences**
• Knowing the place of knowledge • Knowing how to access knowledge • Accessing relevant and appropriate information • Summarizing and preparing knowledge based on occupational needs • operational-practical information • knowledge-based decisions	• suitable platforms for the optimal use of knowledge • appropriate tools for identifying personal knowledge • access to new technologies in public libraries • identification of key factors affecting personal knowledge management • establishment of a link between personal knowledge and organizational κνοωλεδγε	• Knowledge coherence • sharing of specialized information • knowledge acquisition • individual interactions • Information communication • Information extraction • Understanding of information resources • Knowledge utilization	• Identification of personal knowledge • Extraction of personal knowledge • Organization of personal knowledge • Sharing of personal knowledge

Phenomenon
Personal knowledge management

Figure 2. Personal Knowledge management model for knowledge and information science experts in public libraries in Kerman derived from codes

Causal conditions: Factors affecting personal knowledge management in public libraries which are essential for the management of personal knowledge include knowing the place of knowledge, knowing how to access knowledge, accessing relevant and appropriate information, summarizing and preparing knowledge based on occupational needs, operational-practical information and knowledge-based decisions made by knowledge and information science experts in these libraries. The conducted interviews and investigation of the activities of knowledge and information science experts in public libraries revealed that their activities were aimed at identification and operationalization of these factors and necessities. These activities lead to the management of personal knowledge, which was investigated as the main category of the research. Other related categories were also identified

and presented in table 4.1. Analyzing the collected data indicated that appropriate tools for identifying personal knowledge, suitable platforms for efficient and effective use of knowledge, access to new technologies and markets, identification of key factors in the success of personal knowledge management and establishment of a link between personal knowledge and organizational knowledge in public libraries in Kerman provide better and more appropriate conditions for personal knowledge management among knowledge and information science experts.

Phenomenon: Personal knowledge management in knowledge and information science experts in public libraries in Kerman does not depend on their use of and presence in public libraries. In addition to their specialized knowledge in their occupation, they can have personal knowledge in a variety of fields and can implement a personal knowledge management process in these fields.

Conditions and backgrounds: suitable platforms for the optimal use of knowledge, appropriate tools for identifying personal knowledge, access to new technologies, identification of key factors affecting personal knowledge management and establishment of a link between personal knowledge and organizational knowledge in public libraries in Kerman are among conditions and backgrounds that affect causal conditions.

Strategies: The phenomenon of personal knowledge management in public libraries in Kerman is the result of various factors including knowledge coherence, sharing of specialized information, knowledge acquisition, individual interactions, information communication, knowledge extraction, understanding of information resources and their applications and knowledge utilization.

Consequences: The consequences are the results of strategies that are affected by causal conditions. They included identification of personal knowledge, organization of personal knowledge, extraction of personal knowledge and sharing of personal knowledge in public libraries in Kerman.

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