



## Heuristic Methods in Librarianship and Customer Knowledge Management (Case Study: Sun City Tele-Library)

**Somayyeh Mardomi<sup>1</sup>, Ashraf-AL Sadat Bozorgi<sup>2</sup>, Fereshteh Sepehr<sup>3</sup>**

1. MA in Department of Knowledge and Information sciences, Tehran North Branch, Islamic Azad University, Tehran, Iran. (Corresponding Author) E-mail: [someayye.mardomi@gmail.com](mailto:someayye.mardomi@gmail.com)

2. Assistant professor of Knowledge and Information sciences Department Tehran North Branch, Islamic Azad University, Tehran, Iran.

3. Assistant professor of Knowledge and Information sciences Department Tehran North Branch, Islamic Azad University

**Received:** 14 Aug 2021

**Revised:** 12 Sep 2021

**Accepted:** 01 Oct 2021

### ABSTRACT

As identity of public libraries depends on quantity and quality aspects, main effort of these libraries should be concentrated on this problem. Using new methods in absorbing users could help to keep their identity. Studying heuristic library methods in providing library services and managing knowledge of customer are aims of this research. Library method and providing services in tele-library of sun-city is considered as case study. Its performance is analyzed as a successful experience in view of author of article to absorb customer. By a study on history of last researches inside and outside of Iran by library studies, a conceptual model was designed by author to increase efficiency to provide library services by using heuristic methods in librarianship. Result: according to this investigation, the method used in library during 2005-2009 that 8700 people in age range of 8-18 years became membership in region 15, and 36000 books have been loaned. In order to promote the culture of reading book, an innovative method has been quite successful.

**KEYWORDS:** Public libraries, the user (customer), Sun City Library, customer knowledge management.

This is an open access article under the CC BY license.

© 2021 The Authors.

**How to Cite This Article:** Somayyeh Mardomi, A., Bozorgi, F., Sepehr (2021). "Heuristic Methods in Librarianship and Customer Knowledge Management (Case Study: Sun City Tele-Library)". *The Open Access Journal of Resistive Economics*, 9(4): 32-47.

## 1. INTRODUCTION

Technological progress has brought with it many challenges and opportunities. In recent years, libraries were the most powerful providers of information. Hence, importance and need for good relationship with clients, increased nowadays in library as services provider. Due to the emergence of new technologies, the time value is obvious. In such a technological environment users want to provide their information needs in minimum time with maximum productivity. Hence, identifying accurate needs of people is essential to select correctly and on time on library services based on needs of clients (Shokoohiyan, 2011). To achieve quality and show the value of services provided to users / clients, librarians must consider challenges provided for create and maintain relationships with customers based on active subscription positively.

Libraries should not consider only needs and respond these needs by the services, but should form a mutual collaborative relationship, relationship based on targeted and appropriate communication strategies (Philis and Marshal, 2006). Librarians in the course of their work, find out different requirements in terms of knowledge and its sources, traditionally, librarians respect their users/ customers to offer services. For understanding what their users need, advanced methods were used. These factors have turned libraries to mediators of knowledge (Larijani, Noori Asl, 2009). Actually, knowledge is the most important strategic resource, and ability to acquire and developing it resulted in its participation. Finally, this problem resulted in some profitability for the continued competitiveness. Actually, knowledge is the most important strategic resource, and ability for its acquisition and development resulted in its participation and finally provided some profits for continuity of competitively (Tccc, D.J., 1998).this is because valuable knowledge results in strengthening traditional resources and assets in a new way and resulted in providing value for customers (Gholami, 2007). The present age that is the age of information and communication, libraries have changed their traditional methods for customer satisfaction and providing services and use new innovative methods in general.

Using tele-library is one of methods of these methods. This plan was established by cooperation of Tehran Municipality region 15 by Mobin Noor Eshragh in 2004. After that, in 2005, in Mohamadiyeh Ghazvin city and in 2007 in Semnan city for providing services to age group 8-18 years old was established as tele-library of sun-city and rainbow. The use of ICT tools provided new strategies and methods to improve and develop the libraries that the Sun City library is one of its results. In tele-library of sun-city, librarians use telecommunications and information computer technology for non-attendance, identify needs of users by receiving necessary information, and provide proper services in this regard. Whether public libraries are prepared to accept and implement these phone's library projects, then we express opinions about the formation of the library and introduction to research methodology, findings and discussion topic will be discussed. Results of this investigation plan a map for public libraries of Iran and provide essential situations for continuing work in this successful plan.

Sun city tele-library that provides services and satisfaction of customer/ user in the first place to increase per capita reading among children and adolescents, since time of establishment until end of work in 2010, with more than 40000 books for 8000 of its active members could increase study time among users to meet their needs. Due to the nature of public library services, customer knowledge management is highly efficient tools that can be useful in connection with these services. For more efficiency, libraries should move toward implementation of customer knowledge management (identification, creation, confirmation, presentation, distribution and application of customer knowledge), as leads to invention, innovation, competence, efficiency and responsiveness of organization. Based on knowledge as a key factor of competitiveness in the world economy of organizations and centres of education and information organizations may be looking for a basic component that is called customer knowledge (Gibbert, 2002). This knowledge enables organizations to use resources and increase main ability to increase competition. Customer knowledge as a combination of experience, value, information and expert views that is required when the transactions and exchanges process between customers and organizations (Paqucttc, 2008). In addition, customer knowledge processing is engaged to customer relationship management to maintain customers (Dous, 2005). The most recent studies show the potential challenge between knowledge management and customer relationship management to achieve sustainable competitive advantage.

Therefore, combination of two customer relationship management theories and customer knowledge, which is known as customer knowledge management, is suitable approach for acquiring knowledge of customer and providing the best services to customer. Customer knowledge management in relation to acquiring, sharing and development of customer's knowledge with aim to common benefit between customers and the organization. Satisfaction of users/ customers by using customer knowledge management theories increases improvement of public libraries. As customer knowledge management due to knowledge management and customer relationship management could be used for various library activities in providing services, identification of new needs of users and the use of new methods by creative librarians. Using this system, given competitive advantage in the business world and along with changes in the mode of interaction with suppliers of resources (particularly electronic resources) is necessary for libraries and information centres. In addition, according to the user easy access to information resources on the Web and not paying enough attention to the performance of servicing of many libraries, the role of these centres is somewhat obvious. Phone library project helps us arrive public libraries goals along with client-centric goals (user-centric) by change the old traditions and the use of new technologies.

This research continues to be organized as follows: In the second part, reviewing literature and in the third part, the theoretical research, in part three methodology and data collection tools discussed in Part IV. Then in the fifth section, results of research are studied and a conceptual model is presented. Results are analyzed in sixth section. Finally, conclusion and suggestions are presented.

## 2. LITERATURE REVIEW

In the field of customer knowledge management continuously from the beginning of the introduction of customer relationship management some articles appear. But most of them are not under this name. Only a few specific models are discussed for combining knowledge management and customer relationship management. During last few years, this trend was increasing and articles in this field are increasing. In previous studies have noted that the comprehensive framework of customer knowledge management in libraries is not provided. In this article, we review the literature and extract customer knowledge management criteria with regard to new technologies in the field of library, attempted to develop effective and comprehensive framework. In Iran, due to extensive activities that the library and cultural centres have, they tried to attract audiences and promote the culture of reading. We review some of investigations in this field. Extensive research has been done in some commercial organizations about customer knowledge management and its impact on. On the other hand, limited research is done on the effectiveness of on the use of customer knowledge management in libraries and information centres that is mentioned in brief:

Ansari (2004) in investigation as “role of librarians and referees” knows literature effective in opening new ways in reading theories by collecting suitable collections, beautiful space of library, presenting new approaches in lending books and other resources, storytelling and reading programs, workshops as main duties of librarians of children and teenagers.

Liberona (2013) in an investigation as “customer knowledge management in the age of social networks” studied on role of IT tools on customer knowledge management in Shili Company. Results of research indicate that knowledge management and customer knowledge management, gaining knowledge and between processing of information are increasing rapidly. According to him, customer knowledge management is an important issue in collecting data, participation and analyzing information needs of customer, which depends on five factors of knowledge management (technology, leadership, culture, measurement, process). One of the most common applications of technology is that customers can collect, classify and analyze data by low costs. Today, social media are spreading with development of information technology, access to social networks such as Facebook, Twitter and blogs are increasing, so that Facebook is attracting more than 86% of Internet users. According to results of this research, conventional technologies, such as phone often are used as a means of communication with the customer/ user is considered as technologies management and communication as a very important tool.

Zohreh Mir Hoseini and Mohammad Bahrami (2012) in “a study on impact level of tele-libraries of Semnan municipality on increase studying culture of children and teenagers” found out that new method has been effective in increasing interest of teenagers and children .

Mahboobeh Shokoohiyan (2011) in “a study on information needs of teenagers of Isfahan libraries” showed that the most motivation of students to use library services included meeting research needs and projects, participate and collaborate with friends and using textbooks and reference. Due to advances in technology and library use of technology and new ideas to attract readers and encourage them to read, the library could not increase interest in reading among this age group.

Preston in his article as “Clients, relationships and libraries” emphasizes on: “Advances in technology may alter users' understanding of the role and function of the library service in the new millennium. Search is increasingly user-friendly databases, private collections may seem unnecessary or in fact irrelevant” (Preston, 2006).

Faraj Pahloo and Akhshik (2008) investigated on “evaluation of Shahid Chamran University Library Quality Management performance using the EFQM model” concluded that quality of management is lower than average in this library. Ali Ramezani (2008) investigated on “Determine the quality of library services of Kerman University of Medical Sciences on students and faculty members” concluded that among the three dimensions of library service quality, the most satisfaction, respectively, related to control of information, effective service was and space of library. Wang (2007), in a study entitled “Introduction to customer relationship management in libraries” in a case study examined the barriers in implementation of customer relationship management system in eight libraries, and examined efficiency of the examined system. In his study, he introduced and implemented customer relationship management to identify barriers of customer relationship management system in a library and used the proposed plan sets in a model. The results of research projects in Lancaster University Library in 2006 and 2005 showed that using customer relationship management framework can identify relationship between library staff and users. In this study, the views of employees and customers / users surveyed about the quality of services and communication between users and librarians were used. The results showed that customer relationship management is a framework for analyzing the value of good communication strategies for successful academic libraries and library service performance and implementation of customer relationship management. In addition, users and staffs train how to work with new systems which is an important part of providing services for customers. Members of Board of Directors with the support of Shiraz University Fars branch libraries in the field of development of reading and organizing children and teenager's libraries in the summer of 2005 suggested establishment of specialized committee in the field of libraries and librarians for children and adolescents to develop the habit of reading among children and adolescents.

Leen (2004) investigated on “Active knowledge processes for customer relationship management” and compared steel and textile companies in Taiwan. The aim of this paper is to provide a model of customer knowledge management to facilitate the discovery of the relationship between the source customer relationship management, customer knowledge and customer. This model focuses on identifying the key strategic factors that facilitate business operations, innovation, rapid access to market information, and the use of integrated processes and new information. Information of customer relationship management; sharing of information by citizens, frequent purchases, customer retention, customer satisfaction, market leadership, customer loyalty have been helpful. Cronbach's alpha coefficient was used for analysis of the results and sampling. In this study, Cronbach's alpha is higher than 35%, indicating greater compatibility between the components of customer satisfaction, market leadership and customer loyalty and employee productivity.

Derakhshan (2004) investigated on quality of Central Library Services of Management and Planning Organization among organic and inorganic users concluded that there is significant difference in intended level of quality of available services and maximum distance of it. The views of these two groups of users about the gap between current and desired status was evaluated separately. The results showed that both groups, quality of services provided is in good condition.

Hakimi and Soori Nezami (2004) in an investigation as "Assess the quality of services provided by the central library of Zahedan Medical Sciences University" studied problems of users when using services of library, and concluded that quality of services of library has led to providing expectations of its users in all aspects.

Nagata (2003) in an investigation as "Evaluate the quality of access to the Thomas University Library Services" concluded that main problem is important and lack of sufficient resources and low access to available resources in this library is due to enough resources and low access to available resources in this library, which reduces score of performance of set. Examine the experiences of others and use of the results of this research to answer the question whether the customer knowledge management can help to attract the audience to the library. Hence, this research is going to study services provided in tele-library of sun-city, could provide basis for developing reading basis and developing booking and importance of customer knowledge management as financial basis, equipments, and study culture among different users of library.

### 3. THEORETICAL FOUNDATIONS

In the knowledge-based economy, knowledge and intellectual capital are expressed as primary basis for achieving the main principles and strategies for effective performance. To increase efficiency and effectiveness and ensure optimum presentation of goods and services to customers and their satisfaction, their knowledge about customers must be managed. Therefore, knowledge management is an integral part of customer relationship management.

In order to achieve sustainable competitive advantage according to current knowledge, how to use it effectively and create a framework for the use of new information and knowledge considered essential for libraries to have special attention to it (Bhatt, 1998). Customer relationship management issues in the global economy today, enables libraries to rethink the strategies for communicating with a wide range of customers and conquer this vast knowledge provoked (Sparks, 2005).

In this article, we describe the initiative method to implement customer knowledge management in the library services. It is important that before considering the role of knowledge management in customer relationship management, and relationship between these two topics in customer knowledge management and relationship between these two issues, some definitions of each of these concepts be provided to ensure a common understanding of each of them.

#### 3.1. Knowledge Management

Knowledge patterns forms the patterns interaction between technologies, techniques and the human person. For example, information technology on the collection, storage and dissemination of information works pretty well, but its interpretation is disabled (Bhatt, 1998).

Changing human behaviour is one of the current issues of knowledge management and therefore the change in knowledge management projects and strengthening of traditional trends and technologies is emphasized (Glasser, 1998). Individual and collective knowledge and wisdom is main criteria of human kind development. It is main element of development of social systems. Finally, collective wisdom determines capacity of system upgrade. Knowledge management is a wide range of activities applied for manage, exchange, creation or enhancement of intellectual capital in an organization (Mardomi, 2015). In today's competitive market characterized by uncertainty, the companies have the competitive ability of new knowledge in their organization create, distribute and convert it to goods and services altogether. Thus, knowledge of the organization, create a competitive advantage to the organization's ability to solve problems and seize new opportunities. Identifying available knowledge in organization and using it in the best way is the most important question nowadays. In the meantime, the development of knowledge management systems is one of the ways to improve the level of knowledge in any organization is expressed (Turban, 2002).

Knowledge management expressed indicator in the organization as follows.



1. Processes of discovery or production of new knowledge and refine existing knowledge (create an inventory of knowledge)
2. Knowledge sharing between individuals and across all organizational boundaries (to manage the flow of knowledge)
3. Create and use knowledge as part of the daily work of individuals and as part of the decision (application of knowledge)
4. Knowledge management is a set of methods that organizations manage their knowledge assets, which include the gathering, storing, transferring, deploying, updating and creating knowledge (Vykruma Jayasinghe and Labytz, 2007 transit of Mardomi, 2015).

Knowledge Management= Information Management + expert + human knowledge

### 3.2. Customer Relationship Management (CRM)

Since customers are the key assets of an organization, customer relationship management considers the value of the assets of organization to have a better understanding of it and be as a centre for activities of library. Customer knowledge management is one of approaches of implementation of knowledge management in organizations (Rajabali ABegloo, 2012).

As a result, we can maintain current client and encourage new references, firstly productivity of the resources and services of the library, secondly, survival, growth and dynamic libraries provided.

According to audience, needs and new ways of rising per capita study the pros and specific features of the library. The main objectives of this library can include:

1. Create cultural environment with quick access for further study in a short time
2. Children of primary school age are familiar with the culture of reading
3. Increased information and user awareness through information tools
4. Ability to order, extend or telephone study
5. Promotion of children's information in various fields

The main reasons for the failure of the system (CRM) include considering only management than simply ignore the demands of the user (Salmon, 2005). In other words, the relationship with the customer provides benefits through mutual exchange and fulfilling desires.

In fact, customer relationship management includes all the processes and technologies that organization performs to identify, select, motivate, develop, retain, and serve customers satisfaction.

Short-term plans of the library include increasing study among children and adolescents in the region<sup>15</sup> (8 minutes on most days as the most transaction); free membership and use of library services; online; and also no need to provide specific spatial reference services.

Long-term phone's library plans includes: Preparing five specific lists B to E, plan, talking books for the blind (which includes also the telephone Journal), providing specialized libraries for adults (Table 6); preparing inventories supplementary books; and comprehensive information for this bibliography book at the book fair was greeted warmly welcomed by the family. In addition to the raw data of customers and transactions, the knowledge about the customer, the customer's current needs, future needs, communicate, purchase and financial ability (Davneport, 2001).

Hence, knowledge of customers should combine together to provide innovation in services and products, producing idea and continuous improvement for products and services, combine by organization. Collect and analyze knowledge about the customer is definitely one of the oldest forms of knowledge management activities in the field of customer relationship management. Knowledge management clarifies the knowledge in knowledge integration processes (Sparks, 2005). In the area of customer relationship management, users involving / clients are common and is obtained as a result of the

development of research and library activities. Tools knowledge management provides processes and areas for employees to share knowledge based on customer requirements. Tools knowledge management provides processes and areas for employees to share knowledge based on customer requirements.

### 3.3. Customer knowledge management (CKM)

One of the reasons for applying knowledge management includes improving clients services (Wang, 2006). In addition to improving organizational performance, knowledge-based organizations such as libraries, pay attention to user requirements that results in increasing their satisfaction. Knowledge management helps us gather new knowledge, at the same time build and publish (Zarei, 2008). In such circumstances, customer knowledge management can improve the performance. In fact, customer knowledge management is formed of knowledge management system and customer relationship management integration of the two systems exist that can be used to achieve this goal. Today, with the introduction of the computer in the library, especially when computers are connected to information and communication networks, many changes both in terms of structure, management and content are provided in libraries.

Library readiness, the ability of a library and the librarians will be possible through the integration of knowledge management and customer relationship management. It results in changing trend of providing services and makes practical the customer knowledge management for improvement performance and satisfaction of users of services. For this purpose, various methods used for the preparation of libraries in the use of new technologies such as intelligent, virtual, digital and electronic libraries. Phone library project helps us obtain higher goals of public libraries in order to achieve user satisfaction by changing the old traditions and the use of new technologies.

How customer knowledge managers create innovation and progress? Researchers believe that knowledge is both in staffs and in customers that guides us toward creating value of innovation and progress more than cost savings in the management of traditional knowledge.

Difficult access to cultural centres and lack of enough time are main barriers of benefit the citizens of artistic and cultural activities in major cities of the modern era. Accordingly creativity and innovation in the provision of these services in a way that is compatible with the machine life cities, is one of the important basics in cultural programs. Main elements of the phone's library include:

1. Quality of generated content,
2. Paying attention to user/ customer,
3. Demand level,
4. Providing services
5. Innovation in providing services
6. Paying attention to modern technology

Looking at the above discussion, it can be concluded that our expectations of customer knowledge management, includes creating the most value from knowledge and knowledge management in a strategic level. In general, customer knowledge is an important element in the feedback loop, which is effective in innovation, design and development of e-business market. This knowledge is a basis for websites and other computer interaction with customers, design, market research services quality, market segmentation and business performance and strategy and marketing.

## 4. METHODOLOGY

Information needed for this research is collected through a literature review and experimental performance evaluation by the researcher. Members of library during 2004-2009 were 8700 people. Due to financial issues, this library was closed after 5 years of work. So, members of this library are not accessible now. using experimental methods and the provision and collection of five-year-old statistics of

the city library, has studied requests, services and results of customer knowledge Management/ user and introduces it as a successful experience in work and education field. Questionnaire and interview were used to assess framework.

## 5. RESULTS

An important factor in the success of public libraries includes provide free services to the user/ customer. Due to the nature of library services, customer knowledge management is considered as effective tools that can be useful in this regard. User-orientation / customer-orientation in the field of information are two-fold issue that is measured based on quantitative and qualitative indicators. Several factors were identified and determined for assess user-orientation / customer orientation and customer knowledge and changing it into quantitative and qualitative amounts. There are specific specifications in each organization (Akhavan, 2008). Library due to excessive communication with customer issues and customer knowledge is not the exception. Most approaches in relation to the interaction with the customer and making customer satisfaction and build loyalty in him is so that makes him permanent customer of organization to be profitable for organizations (Dous, 2005).

It should be noted; this section of the study is according to personal experience of direct work in the library collection have been prepared and collected. Phone library is a public library with changes in management; systematically identified the need for age groups 8-18 years with identifying needs of audience, offering services.

This library was established to develop reading books and making books accessible for children and teenagers by Mobin Noor Eshragh Institute established in 2004 in region 15 of Tehran Municipality. Ten, it was formed in 2006 in Mohamadiye city of Ghazvin province in 2007 in Semnan. Main facilities of IVR Library include:

- 1- Book informing: 1. in the information system book, the audience can receive by IVR newly published books useful daily information from the area of children and adolescents with specifications, distribution centres and a brief description of the book sound.
- 2- Tele- journal: In this section, informative and diverse content are considered in IVR system for children and adolescents, including poetry, stories, Quran, religious, medical, scientific knowledge. Some matches are considered for audiences in the field of reading book.
- 3- Playing story and poem with sound of children and teenagers: in this section, members of Sun City library could record a poem or story in IVR section by their voice to play it for other audiences under their name in intelligent telephone.
- 4- Borrow books (especially cities and municipalities under contract with Sun City): audience after registration and membership received a list of books of Sun City. After selection and ordering the book, people receive their book free transportation. This process is repeated in next weeks, and new book is replaced.

The headquarters of the library is in Tehran, provides published books for experts of children in the library. Content and image of these books are examined. If confirmed, they are provided in list of library. This list includes descriptive information of book, abstract, and specific code of book. 40000 books were published by the library for children and teenagers with complete specifications of book by Elm publication in different fiels including fiction, science, history, religion, medicine, etc(Sun City Library Management System , 2011). Each book has a specific code. Members can register three books in their rational system and receive it free at home as borrow. As each book has specific code, members of library could enter cod of book and their membership code to register for borrowing three books in maximum in IVR, and receive it by motor vehicle in their home without paying money for cost of transportation. For returning book and borrowing a new book, after two weeks, members give back previous books to motor



vehicle and receive new order. For registration, people call 9092301610 or 88209000. Notably, for registration only national code, postal code, identifier code (150) is entered and become member of library of sun city Using IVR help, members can listen different sections of journal (Sun City Library Management System, 2008). Software used for this library is provided according to information and services needs by library. It was by prepared by cooperation of Rayanmehr Company. Its errors were studied and announced by librarians and finally registered by national library.

Due to activity method of library and easy access to book, people concluded studying book is helpful. Librarian receives registered orders on system of library and send them to addresses by motor bicycle. If member is not home, a sheet is put on door of member ask him to call librarian to receive the book in another time. Therefore, the members never face to use the different sectors. They can contact librarian directly in work time since 8 A.M to 4 P.M. To tell their problems.

### 5.1. Customer knowledge management in libraries

Nowadays libraries look for new solutions to solve information needs, information behaviour and attitudes of users/ clients. CKM is one of these areas (Rajabali Beygloo, 2009) formed under aim of providing common profit between customers of library and library as an organization. The librarians as the appropriate structures and beds have obtained facilitator knowledge management in efficient access of grouping of different knowledge and the librarians as the memory managers of an organization have gained suitable and up-to-date services from the knowledge management (capture, compilation, organizing and propagation).

The library function (performance) is the simple access to the registered knowledge and the external function of the library organization (relationship) between the registered knowledge and the user as an individual and in the final step, the society (Horri, 2004). Meanwhile, using the new styles (methods) of library by the management knowledge for identification (defining) of the uses needs and planning the information services are applicable.

One of the applicable approaches in an organization is the customer knowledge management (CKM). This approach of the knowledge management overlapping is created, so that it can pave the way for many activities, processes and the working approaches of the libraries and the information centres. From the business viewpoints, the function of an organization is based on paying attention to their customers. While in the libraries, the major part of efficiency and usefulness is related to the users (visitors). The general (common) and prophecy and university libraries, regarding the prophecy and identity of their function to the other libraries, are mostly donated to the users, and against the Baran, Galka and Strunk's viewpoints (2008) that look at a trading organization visitor as an economic profitability. The libraries zone experts know the librarians as none profitable and just take steps for servicing.

So, for creating a better relations among the users, it is necessary to present services as every user's preferred method, we need the RKM (Darpon and ET, 2001, narrated by Rajab Ali Bigloo, 2012). In addition, the process used by an organization to identity, provides and uses internally, the customers knowledge, is called the CKM system (Rowley, 2002). This system is made for increasing the efficiency and performance of the organization and attracting their satisfaction. Indeed, by this process, a new knowledge, combination among the library users and the existing knowledge is made and a new knowledge will emerge for designing a written and applicable presentation. By using the system, we can expect a reasonable and acceptable function from library. Al-Shanannari (2009), divide the different user knowledge that are present in the processes of the system:

- The knowledge for the customers (Information in the context of the production, services and market and ...those are necessary for covering the customers' needs).
- The knowledge with the customer (the interactive knowledge between the customer and the organization for providing services and production).

- In the libraries, the kinds of services are including providing of the services as in sourcing and outsourcing.
- The customer knowledge perception of whatever that the customer knows, is a precious source for presenting the new services.

In the library, servicing of these two knowledges include: providing report from the data base and websites, accountability to the reference questions, verbal and virtual presentation of deposit services in verbal form. The users, present information and implicit knowledge during their attendance in online groups and the organizations examine their tasks function improvement by supervision on the dialogues and announcements and views (Nikolas and molina, 2008). Functions of the libraries are making easy access to the registered knowledge. The external function of library systems are effective relation creation between the registered knowledge and the user as an individual and the ultimate goal, in the society (Horri, 2005). When attracting and maintaining the customer/user in the first priority in the organisation/library. The first condition of realisation of this goal can be good and suitable (appropriate) relation between the user/ customer and organisation/library.

Paying attention to the customers wishes results to the customer satisfaction, the customer knowledge and identification of the customer needs.

1. The satisfaction of customer/user from the relation between the organisation /library is a need for a list of the customer or user demands(quality, suitable prices, the customer needs.
2. Identification of the customer/user from the moral of the user and awareness of them can be important.
3. Identification of the customer/user needs can help a library to have a better understanding of its apparent and hidden needs and future demands of the user, and also setting up of an effective and good relation for the members' future demands.

In the first glance, customer can be just another name for the relation management with the customer or the knowledge management, but the customer knowledge, in some aspect needs a different prospective of the common method in the relation management with the customer and knowledge management.

In return, special focus of the customer knowledge or the arrangement and reinforcement of the collaborative relations (if just we know that what we know), the customer relation management suggest(if we just know that what the customer know).

Customer knowledge management and knowledge management and CRM are compared in table 1. Managers concentrate more on knowledge of customer than knowledge about customer. In other words, intelligent organizations found out that their customers are more aware than a staff who seeks knowledge of direct interaction with customer and knowledge inquiry about customers / users.

Table 1: comparison of the customer knowledge with the management knowledge and the customer knowledge management

	KM	CRM	CKM
<b>General</b>	Just know about what we know	Preserving the present customer is cheaper than finding a new one.	Just know what the users want
<b>Goal</b>	R&D research and development	Loyalty of the user to the product	Cooperation and consultation with the customer.
<b>The needs</b>	The user's needs	Preservation by the	Creativity of the users

<b>The customer products</b>	The production receiver	users Dependence on the production	Creativity unity
<b>The organization role</b>	Encouragement of the organization for knowledge	Creativity establishment a stable relation with the customer	Conversion on the users to an active partner

## 5.2. Customer/users types

Limiting the defining of the customer to a library user, caused the experts define a list of these customers/users of a library, that are a reflection of the library services to the goal markets (Vaingand, 2005). Vaingard believes that the libraries, if do not compete on abilities, they will loosen their users. Therefore, two internal and external groups in the table no. 2 divide the users.

Table 2: Different groups of library users

<b>Internal</b>	<b>External</b>
Management	Library users
Staffs ( librarians )	None-users
investors ( book sellers)	Sellers
Volunteers (supporting institutions)	Investors, regulators

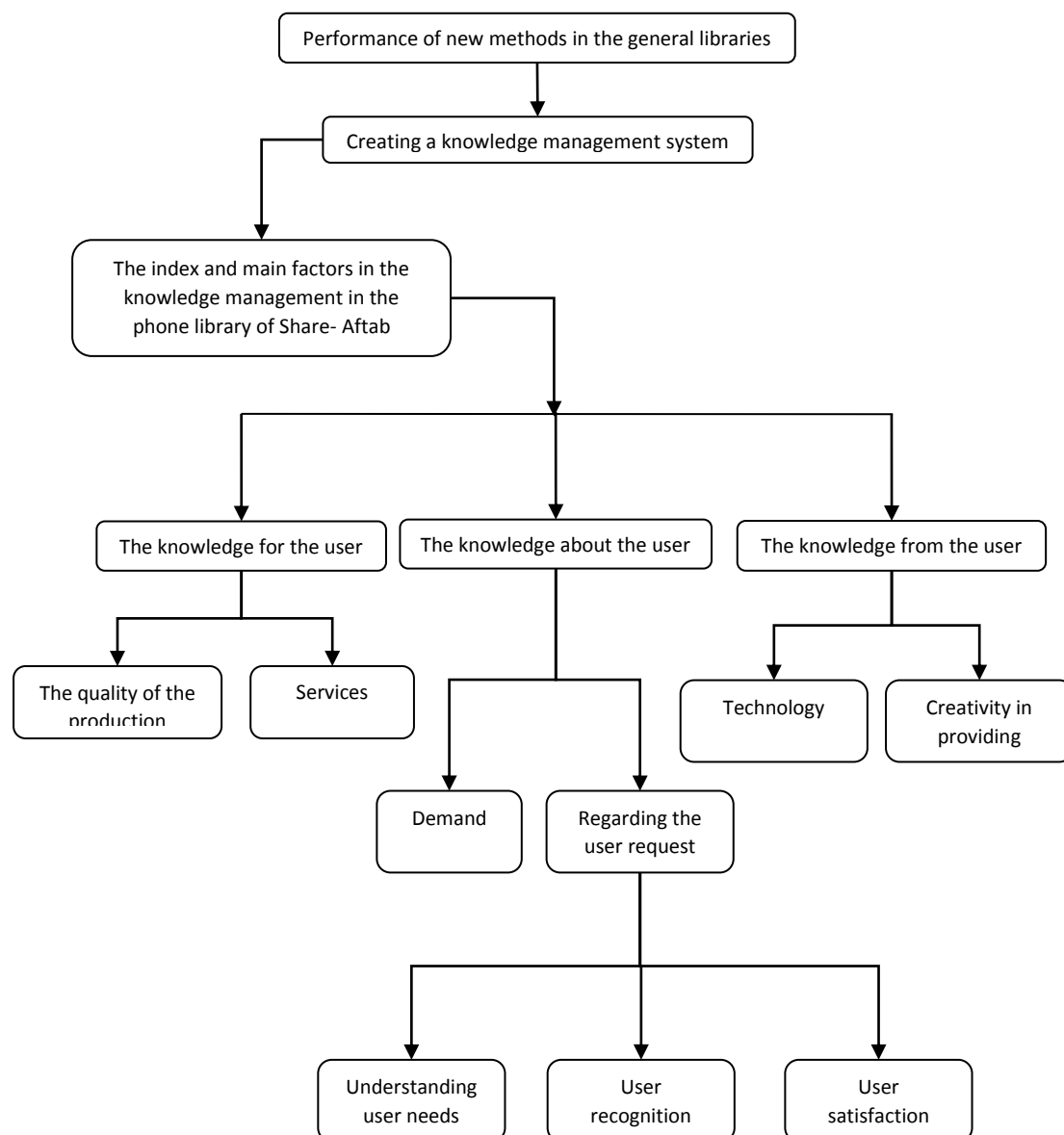
The readiness of the using the new technologies as an important index in attracting the user/audience or costumer to the libraries, depends on ability of using different methods and creativity in the human knowledge management. As the model reflects just special aspects of the real world and includes interwoven meanings and indexes that are simplistically explanatory of a suitable picture of a phenomenon (Irannejhad, 1998), The defined structure in this research, relating the explained subjects and the personal experiences of many years as a liberation, as a road map for the general libraries and regarding the accesses of the plan, in those operations will be attracting, preserving and in the creativity mode in the libraries users.

## 6- DEVELOPMENT OF CONCEPTUAL FRAME OF FACTORS AND COMPONENTS OF THE CUSTOMER KNOWLEDGE IN THE SHARE- AFTAB PHONE LIBRARY

By sing the management knowledge appropriately, in the presence of the suitable indexes and criterions on one hand, efficiency and performance of the knowledge management will increase and on the other hand, its impact on the libraries functions will help the management attitude towards the customer knowledge management and will persuade them to use it, more than ever.

In the event of solving the lack of integration and holistic in most of frames of knowledge and regarding the necessity of the customer knowledge management in the service organizations and also a comprehensive overview to the customer knowledge, a customer knowledge management in the libraries have been designed so that, it can cover the knowledge vacancy efficiently and in proportionality, it can cover the knowledge goals and performance and efficiency, obtained from the knowledge promotion in the library.

Figure 1 Conceptual Framework of components of customer knowledge management in Tele- Sun City Library



## 7. CONCLUSION

Creativity is not limited only in industry. It is meaningful in thought too. Different people especially the children and even adults are forced to think when they are placed in intellectual situations and participating in statement for innovation. One of the approaches of librarians for improving knowledge management in library is preparing approaches and methods to integrate them with customer knowledge of librarians. The advantage of this approach includes a realistic plan for providing services to library users. Customer knowledge management system provide gaining knowledge through new technologies with the help of this technology libraries could respond the needs of users / customers substantially due to growth in the new era.

In connection with this study, a wide variety of research has been done at home and abroad. Davenport, Paquette and Rowley investigated widely on different fields including industry, economy, and electronic business that is due to realizing the importance and value of customer and knowledge and its management. After a brief study on these investigations, it was clear that the most of the projects were concentrated on commercial and institutional areas initially. Then, they developed to other areas such as

universities and libraries. With the trend of research and study in this field of research, gaps can be observed in the studies. Drawing model and applying these models in customer knowledge management in librarian and informing fields are as points there are less discussions about all of them. so, this area of research requires more work. this research was formed align with this aim and problem. The difference between this investigation and other ones is that this model is designed based on experience of author in library environment. It is essential to revise in science education society and information system for education of librarians and information professionals of information technology age to maintain position and value of librarians and informing in future society. Under logical revise of library function and reinventing new roles we can hope high position of librarian position in progress process of human kind society. In this regard, main duty of scholars and professional instructors in this field would be providing theoretical frameworks and practical solutions for providing better future for librarians (Mardomi, 2014). On the other hand, funding, human resources, organizational structure, the emphasis on the dissemination of knowledge and new technologies are the factors that foster innovative activities in public libraries. funding is one of the success factors of any organization and played an important role in library innovation. Human resource is very important in planning and administering innovative activities in public libraries. Having a dynamic and creative human resources at the same time specializing in library and information science, alongside the subject specialist are known as essential conditions for innovation in public libraries.

Attitude of user/ customer and human resources are two important factors affecting the organizational structure of public libraries with an emphasis on the dissemination of knowledge and new technologies, is a factor in increasing innovation, cooperation between libraries, decisiveness in implementing fundamental changes, review the education system, innovation policy, communication infrastructure, paying attention to national and international developments, a combination of social, political, cultural factors in supporting services of public services of other effective factors on administering innovation in public libraries. According to results of this investigation, modern innovations in this area are very effective. nowadays, this field was exited of librarian field and is introduced as information science. library has changed from its physical and traditional area to digital and electronic flow (Mardomi, 2014).

In this research, we are going to provide a framework for assessing customer knowledge management in library as innovative method in public libraries. In next stage, a framework is presented for customer knowledge management in organization which is a combination of principles of knowledge management and customer relationship management. This model is a suitable approach for obtaining customer knowledge and presenting the best appropriate services. To enhance the level of services provided to each user/ client, public libraries requires that services be carried out according to the needs of citizens.

Knowledge management and customer relationship management merged to form the customer knowledge management that could be used for many activities, needs, processes and procedures used in libraries and information centers.

Using numerous studies, many libraries and information centers today reached to understand vision, behaviour information, informative literacy, requirements and other aspects of users/ clients. When knowledge management and customer relationship management focused to take customer education, they appear as a strategic process on organizations that provide higher position for their customers to receive products and services passively. The proposed framework in this article for the implementation of customer knowledge management enables specialists able to apply knowledge successfully for and about customer to obtain more innovative efficiency of knowledge of CKM. Notably, in this way and to apply all customer knowledge, management of all three flows simultaneously is essential. Customer relationship management is an animated theme for rethinking of organization for an effective relationship with a wide range of customers and acquire, establish and administration of this knowledge and using realistic programming approach for providing services for users of library.

What can be expecting of customer knowledge includes use of new technologies and innovative methods for managing integrated system for the implementation of this knowledge.



The growing trend of libraries and information centres is toward specific objectives is made up. Using CKM system, libraries are able to manage activities and processes, user's satisfactions, loyalty, providing trust in users, and improving services quality.

To use customer knowledge, the following points should be considered:

1. Tell people how they will use the information
2. Provide this opportunity for people to see their information.
3. Provide this opportunity for people to change their information.
4. Tell people who can access their information.
5. Consider all of mentioned points in privacy area and related to your web.

## 8. SUGGESTIONS

Unfortunately, the qualitative procedure of public libraries despite all efforts by operators and authorities is so that in some cases, meet the needs of users / customers who are not able to refer for some reasons. We have faced fundamental change in developing study of book. Developing library system of Sun City is effective in developing book study that requires accompany and help all the cultural agencies of the country. On the other hand, public libraries as knowledge centres can provide knowledge management services required by users in competitive market with respect to information supplied free of charge to customers / users, stimulated and to provide a free service and available 24 hours a day to make active users and change library to knowledge management centre.

There is a dynamic relationship between intellectual property and power. The best practice for effective management of knowledge is integration of it with the core processes. Creating a repository of integrated knowledge within the organization is unified view of related customer data plus a set of related systems, is a critical success factor. A central repository of knowledge can help us overcome regional boundaries and will help divisions between units. Stock of knowledge is also a prerequisite for establishing certain rules and criteria for evaluating customer value and marketing competition in the different products groups. Having a flexible organization structure creates challenges in knowledge management structure. These challenges include the following items when economy is knowledge-based by changing assets of customer knowledge management to key assets of organization.

1. Ensure that the IT infrastructure enables access to knowledge repositories before making Union and forming the organization, and formed an alliance
2. Determination of policy and knowledge sharing between members of the virtual organization
3. Define the boundaries, responsibility and ownership of repositories of knowledge.
4. Create a knowledge-based culture that encourages the rapid expansion of trust between members of the virtual organization and promotes a thought about value of knowledge assets.
5. knowledge asset management when resignation of members of the virtual organization

Framework provided for the implementation of customer knowledge management in Sun City library that is a combine of the principles of knowledge management and customer relationship management, can provide the best and most appropriate way to gain customer knowledge and solution. According to the practical experience of working in this library, the proposed framework has library's usability and performance.

## REFERENCES:

- Akhavan, P, Heydari, S, 2008, "Customer knowledge management, an approach to achieve competitive advantage ", *Journal of tomorrow management*, 24 (5), 18-40. (In Persian)
- Al-Shammari, Minwir. (2009) *Customer Knowledge Management: People, Processes and Technology*. Hershey: Information Science reference.
- Ansari, N, 2014, "role of librarians and referees of literature in opening new horizons in reading theories" the first conference of children literature. (In Persian)
- Baran, R., R. Galka, & D. P. Strunk. (2008). *Principles of Customer Relationship Management*. Australia: Thomson, Southwest.
- Bhatt, G. (1998), "Managing Knowledge through people". *Knowledge and Process Management: Journal of Business Transformational*, Vol.53 No. 11 , pp. 71- 165.
- Davenport, T. H.; J.G. Harris, and A. K. Kohli. (2001). "How do they know their customers so well?". *MIT Sloan Management Review*, V. 42, N. 2: 63-73.
- Derakhshan, M, 2014, "Assess the quality of services in the Central Library of Management and Planning Organization". Master's thesis, Tarbiat Modarres University.
- Dous, M., Salomann, H., Kolbe, L. and Brenner, W., (2005) "Rejuvenating Customer Management: How to Make Knowledge For, From and About Customers Work", *European Management Journal.*, 23(4), 392–403.
- Felice, J. & Marshal, S. (2006). "Building better customer relationship: a case study from Malta and UK.". *Aslib Proceedings* (in press).
- Garcia Murillo, M. and Annabi, H. ( 2002) *Customer knowledge management*. *Journal of the Operational Research Society*, 53 (4), 875- 884.
- Gibbert, M. And Leibold, M. and Probst , G (2002). "Five Styles of Customer Knowledge Management and How Smart Companies Use Them to Create Value" *European Management Journal*, 20(5). 459-469.
- Glasser, P. (1998), "The Knowledge factor", *CIO*, December, pp. 15-19.
- Hakimi, Soori Nezami, 2004, "Assess the quality of services provided in Zahedan Medical Sciences University Central Library", *Journal of Zahedan Medical Sciences (Tabib East)*. 7 (8), 267-273.
- Horri, A, 2014, *librarian and new management*, Institute for Humanities and Cultural Studies. Pp. 428-434.
- Horri, A, 2014, "new librarian and management", *librarian journal*, 425-434.
- Iran Nezhad Parizi, M, 2013, "Social science research methods". Tehran: managers' publication.
- Larijani, H, NooriAsl, M, 2009, Feasibility of implementation of knowledge management in public libraries in East Azerbaijan province. *Journal of Knowledge*. 2 (5). 73-80.
- Liberona D, Ruiz M, Fuenzalida D, (2013). *Customer Knowledge Management in the Age of Social Networks*. 172: 353-364.
- Lin L, (2004). A Historical Perspective: The Root Cause for the Underdevelopment of User Services in Chinese Academic Libraries, the *Journal of Academic Librarianship*. 30(2): 109-115.
- Lopez, Nicolas, C. & F. J. Molina, Castillo, (2008). *Customer Knowledge Management and E-commerce: The role of customer perceived risk*. *International Journal of Information Management*, 28: 102-113.
- Mardomi, S, 2014, The role of new technologies in the field of library and its impact on academic libraries, First National Conference on new technologies Iranian letter to achieving sustainable development, in electronic form, the strategies to achieve sustainable development, [http://civilica.com/paper-senaconf01\\_297](http://civilica.com/paper-senaconf01_297). Html. (In Persian)
- Mardomi, S, 2015, "Feasibility of implementing knowledge management to enhance intellectual capital in special libraries of Ministry of Energy" master's thesis. Faculty of Humanities. Islamic Azad University. North Tehran Branch. (In Persian)
- Mirhoseini, Z, Bahrami, M, 2012, Effect of Semnan Municipality rainbow phone library on the Development of Children and Adolescents, *Research, Information and Public Libraries*, 18 (1), 101-115. (In Persian)
- Mushi, Reuben Jacob. (2009), *Intellectual Capital and Public University Libraries: a Knowledge Sharing Perspective* (A thesis submitted in partial fulfillment of the requirements for the award of the International Master in Digital Library Learning), Senior Lecturer, Archives & Records Management School of Information Management Victoria University of Wellington, Wellington, New Zealand.
- Nagata H, Nimboonsoon N, (2003) *Assessment of library service quality at Thammasat University library system*. U.S.A: Research Center for Knowledge Communities University of Library and Information Science.
- Paquette, Scott (2008). *Customer knowledge management*. In "Encyclopedia of Knowledge Management". IGI.
- Patricia Seybold Group. *An Executive's Guide to CRM*, March , 2002

- Rajabali abaeygloo, R, Zomorod Poosh, F, (2009), "Determining the Role of Customer Relationship Management (CRM) in libraries and information centres". Library and Information Science. 12 (3).
- Rajabali abaeygloo, R, (2012). "Customer knowledge management, an approach emphasizes the integration of knowledge management and customer relationship management in libraries and information centres". E-Journal of Astan Quds Razavi Libraries, museums, and documentation centres. (16-17). (In Persian)
- Ramezani, A, (2007), "a study on quality of central Library of Kerman University of Medical Sciences students and members of the scientific board ". Department of Medical Sciences, 5 (2), 113-119. (In Persian)
- Research Branch Library, Sun City (2011). (ED), Tehran: Office of Science.
- Roosta, A, 2006, "mode water market", SAMT publication, 85.
- Rowley. J. (2002). "Reflections on customer knowledge management in a business". Qualitative market research journal. 5 (4). 268-280.
- Salomann, Harald, Dous, Malte, Kolbe, Lutz, Brenner, Walter. (2005). Rejuvenating Customer Management: How to Make Knowledge For, From, and About Customers Work, European Management Journal. 23 (4). 392-403.
- Shokoohiyan, M, 2011, a study on information needs of teenagers (15-18 years old) of libraries under public libraries of Isfahan city", M.A. thesis, Faculty of Education and Psychology. University of Esfahan.
- Sparks.G. (2005). "The business process model", In [http://www.sparxsystems.com.au/WhitePapers/The\\_Class\\_Model.pdf](http://www.sparxsystems.com.au/WhitePapers/The_Class_Model.pdf).
- Sun City library management system (2008). Reports retrieved on 7 November, 2015, from: <http://94.183.190.65:8080>.
- Turban. E, Mclean.E (2002), "Information technology for management", rd ed ,John wiley & Sons.Inc.
- Vayngand, Darlynay. (2005). Excellent Customer Service: A brief guide for librarians. Translation M. Hedayat. Tehran SAMT.
- Wang, H. 2006. "From user to customer: TQM in academic libraries?" library management. 26 (2). 606-618.
- Zareie, A, 2008, the process of knowledge management in libraries, electronic publication of Library, Archive and Information Science, 1 (5).

## COPYRIGHTS

© 2021 The Author(s). This is an open access article distributed under the terms of the Creative Commons Attribution (CC BY 4.0), which permits unrestricted use, distribution and reproduction in any medium, as long as the original authors and source are cited. No permission is required from the authors or the publishers.



## ACKNOWLEDGMENTS

The current study has not received any grant, fund or contribution from private or government institutions. Also, the authors declare that there is no conflict of interests

## ETHICAL CONSIDERATION

Authenticity of the texts, honesty and fidelity has been observed.

## CONFLICT OF INTEREST

Author/s confirmed no conflict of interest.