

Documentation Status in Shahid Chamran University (SCU) Registrars from Their Employees' Viewpoints

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Abstract

Purpose: The purpose of the present survey is to study the status of knowledge documentation in the registrars of SCU from the viewpoints of registrars' employees in the same University.

Methodology: The research is a survey of a descriptive-analytical type. The data gathering instrument is a questionnaire the validity of which has been measured by face and content validity and the reliability of which has been measured by Cronbach Alpha (0.962). To analyze the data, descriptive statistics (frequency, frequency percentage, mean, and standard deviation) and inferential statistics (Friedman's and one sample t-test) were employed.

Findings: Findings indicate that the documentation status is relatively desirable, and the employees' awareness of documentation values is high. Based on employees' viewpoints, five instructional, behavioral, technological, legal, and structural infrastructures and factors were found necessary for documentation.

Results: Transmission of employees' experiences to others before retirement, experienced registrars' employees privilege of intellectual property rights, publication of a documented manual of knowledge and important actions performed in registrars, and the publication of employees' documented knowledge in specialized periodicals or as books were among mechanisms identified to improve and develop the documentation system in registrars.

Keywords: documentation, experienced employees, registrars' employees, knowledge management, SCU

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Introduction

Knowledge is the main competitive advantage of today's organizations. It is a powerful tool that is expanding and changing daily, the control and management of which requires special skills that differ according to organizations' activities. Knowledge is the integrated part of organizations' success. This is especially true in universities where intellectual capitals and hidden assets are quite important. It is necessary for universities to constantly employ new knowledge by its creation, validation, and use in the sophisticated and dynamic environment of today. Peter Drucker believed that "the secret to the organizations' success in 21st century is knowledge management" (Drucker, 2002,1391); therefore, knowledge management is an issue more important than knowledge itself that looks for the converting individual's information and knowledge into individual and group's knowledge and skill.

The universities therefore have to create an environment of knowledge sharing, transition, and reciprocity among their staff; train individuals to conceptualize their interactions, and try to make way for and identify background factors to establish knowledge management in the organization. The problem is that knowledge management is a systematic issue; an issue the successful implementation of which requires an exhaustive and thorough viewpoint towards different organizational factors. Due to the existence of multiple models and practices to implement knowledge management in organizations, sometimes these models and practices confuse the managers who intend to implement knowledge management in their organizations. Some organizations have invested largely on information and communications technology.

It should be kept in mind however that successful implementation of knowledge management requires the consistency, coordination and specialty of different organizational factors such as organizational structure, organizational culture, technology, and human resources; and

any gap and inconsistency among these factors hinder the successful implementation of knowledge management for which one has to look at the organization as a whole, consider all these factors and identify and analyze their status in the organization (Khodaei and Abbasian, 1389).

Knowledge management has become a critical issue in recent years. Both scientific and commercial societies believe that organizations can retain their long term superiority in competitive environments by knowledge power; and scientists have found in their research that knowledge management unlike other managements is not impermanent, and has lasting effects. Competitive conditions and environment of the organizations is more and more sophisticated and changing, so that the change speed in most organizations is more than their ability speed to become adaptable and responsive. Constant changes of knowledge have also brought about a state of imbalance for the organizations. In such conditions, only the organizations able to maintain their competitive advantage can survive, According to scientists in the field (Bakhtiyari, 1388); maintaining the competitive advantage and organization's survival by constant creation of new knowledge is possible by knowledge management. Knowledge management is one of the most important tools for the organization's success in competitive environment and information age.

Research problem

Recently, service organizations including universities have encountered an increasing competition. These organizations must be able to keep their current customers and absorb new ones by satisfying high-level and increasing demands of their customers. To solve the problem, much emphasis has been laid on knowledge management and group working.

Since these group members share their knowledge and experience among themselves to present more, better, and newer services there is

a general agreement that knowledge is the main factor in organization's success. The most valuable source in every organization is the staff's knowledge. Staff's retirement and transmission to different departments of the organization create new challenges.

Nowadays, almost everything requires knowledge-based work, therefore, all the jobs done by staff depend on their knowledge instead of their hands and that signifies that creation, sharing, and use of knowledge is one of the most important activities of every individual.

Registrar is an important part of every university and educational center. The presence of more than 15 thousand students in undergraduate and graduate levels as well as more than 550 faculty members in Shaheed Chamran University (SCU) and the plenty of different educational and academic problems brought up by them indicate the importance of registrars in this university.

In a telephone interview with Mahmood Kashefypoor, the vice-chancellor of education for SCU, some questions were asked concerning educational regulations, active and dead archives, and educational courses for the registrars' staff. Answering the question: "are there any written regulations on the basis of which the staff in registrars do their jobs?" he stated that regulations magisterially noticed by the Ministry of Sciences, Research, and Technology (MSRT) and performed in SCU. If there is need to any note, the case is presented to the educational council and noticed to registrars in a guideline format. Kashefypoor also stated that all graduates' documents have been maintained since the establishment of SCU, meaning that there is not any difference between the active and dead archives. The last question was about formal training courses for the staff in registrars, and he answered that there were none (personal communication, April 2015).

In another interview with Pashmforoush, SCU's educational services manager, it was clear that there were no guidelines for job description in SCU's registrars, and the jobs were allocated according

to decisions made by vice-chancellor of education in every school (personal communication, May 2015).

Based on what was discussed above, it was clear that some problems such as lack of a written job description guideline for staff in registrars, lack of formal training courses for staff who are new in registrars, and non-existence of separate dead and active archives existed in SCU's registrars.

Evidence indicates that documentation status in SCU's registrars is seemingly not satisfactory. The purpose of the present research is therefore to study the documentation status of knowledge management in SCU's registrars from their staff's viewpoints, and present some suggestions to improve the situation.

Research objectives

The main objective of the present research was to study the documentation status in SCU's registrars from their staff's viewpoints.

Specific objectives

1. Studying the documentation status in SCU's registrars in terms of documentation and their staff's awareness of its values;
2. Identification of most important infrastructures and factors (cultural, behavioral, structural, legal, and technological) effective on knowledge documentation in SCU's registrars from their staff's viewpoints;
3. Studying the barriers and problems of knowledge documentation in SCU's registrars from their staff's viewpoints; and
4. Determining necessary mechanisms to improve and develop knowledge documentation system for SCU's registrars from their staff's viewpoints.

Research questions

From viewpoints of SCU registrar staff:

1. What is the current status of SCU registrars in terms of knowledge documentation and how aware are the staff of its value?
2. What are the most important cultural infrastructures and factors effective on knowledge documentation in SCU registrars?
3. What are the most important behavioral infrastructures and factors effective on knowledge documentation in SCU registrars?
4. What are the most important structural infrastructures and factors effective on knowledge documentation in SCU registrars?
5. What are the most important legal infrastructures and factors effective on knowledge documentation in SCU registrars?
6. What are the most important technological infrastructures and factors effective on knowledge documentation in SCU registrars?
7. What are the most important barriers and problems in the way of knowledge documentation in SCU registrars?
8. What mechanisms are appropriate to improve and develop knowledge documentation system in SCU?

Operational definitions

Documentation, in the present research is the intentional preservation of different kinds of valuable knowledge (explicit and tacit) in SCU registrars in a retrievable format and usable for individuals and university

Experienced staff are the staff with more than 18 years of work experience.

Knowledge in the present research is taken to mean the existing information and data extracted from different sources and in different formats (tacit and explicit) that include formal plans and documents, notes, reports, communication files, web pages, telephone conversations, letters, financial documents and so on. They also include the knowledge existing in tacit and explicit processes of job being

performed, in the forms of ideas, insights, assumptions, questions, events and decisions valuable to SCU.

Registrars include schools' registrars as well as general registrar located in the central building of SCU.

Registrars' staff are the ones who work in schools' registrars as well as general registrar located in the central building of SCU.

Experience in the present research is the description of a real event including a decision, challenge, opportunity, problem, or special issue encountered by registrars' staff.

Research population

All the staff in schools' registrars as well as general registrar located in the central building of SCU are the research population and there was not any sampling. They were 110 persons, but only 89 ones completed and returned the questionnaires.

Data gathering instrument

The data gathering instrument was a questionnaire designed by Jamshidi Borujeni (1392) with minor modifications to tailor it to the research population of the present research. The questionnaire consisted of five parts:

1. The first part included the demographic information such as sex, qualifications, and age.
2. The second part consisted of questions concerning the current status and awareness rate of registrars' staff of documentation (14 items).
3. The third part dealt with staff viewpoints on infrastructures and factors effective on documentation (26 items).
4. The fourth part considered the existing barriers to documentation (16 items). And

5. The last part included the staff viewpoints concerning suggested mechanisms to improve documentation in SCU registrars (14 items).

The questionnaire was a closed one with a 5-value Likert scale for parts 2, 3, and 4 and 7-value Likert scale for part 5.

Validity and reliability of data gathering tool

The validity of Jamshidi Borujeni's questionnaire had been approved by 6 faculty members of the dept. of knowledge and information science (KIS) and 2 faculty members of the dept. of management of SCU. Since some minor modifications were made in Jamshidi Borujeni's questionnaire for the present research, its validity was once again checked and approved by 2 faculty members of KIS dept.

To measure the reliability of questionnaire, a pilot study was performed with 25 questionnaires of which 21 were returned. The Cronbach's Alpha of 0.972 indicated a high reliability of questions.

Data analysis methods

Using SPSS software, version 20, data were analyzed by the following methods:

1. Descriptive statistics (frequency, percentage, mean and standard deviation); and
2. Inferential statistics (one sample t-test to compare means in each item and Friedman's test to rank necessary infrastructures and factors effective on knowledge management and their items).

Research findings

The 8 research questions presented above, are answered in order of their appearance. For each question descriptive information is presented

firstly and then depending on the nature of question, some inferential statistical test (one sample t-test and Friedman's test) are employed³.

1. What is the current status of SCU registrars in terms of knowledge documentation and how aware are the staff of its value?

Items related to this question have been analyzed in two separate parts: in the first part 7 items evaluate the current status of documentation in registrars and the second part explains the awareness rate of staff from documentation advantages. The abbreviation KD is used for knowledge documentation in the following phrases.

Items asked for the first part (items 2, 3, 4, 5, 8, 9, and 10 of the questionnaire) are: use of documentations of projects, processes, and activities performed in registrars; the importance of KD in the existing work system; the existence of encouragement system for KD; readiness of individuals to document knowledge to transmit to others; training necessary for KD; readiness of registrars' environment to transmit knowledge; and tendency to share ideas and knowledge among registrars' staff.

The readiness of individuals to document knowledge to transmit to others with a mean of 3.5747 was the highest and; the existence of encouragement system for KD with a mean of 1.9432 was the lowest

For the second part of question 1, results indicated that from the 7 items (items 1, 6, 7, 11, 12, 13 and 14 of the questionnaire) of "awareness from values of KD"; "awareness from the effectiveness of documentation of ideas and knowledge in promoting registrars' objectives"; "awareness from the effectiveness of KD in promoting job status"; "awareness from the effectiveness of precise and constant KD and decision-makings in improving registrars' services"; "awareness

³ Naturally research findings must be presented in some tables and diagrams as it is in the master's thesis from which the present paper was extracted. To avoid a lengthy paper within the word and page limit of the Conference, findings are only presented by words and figures, not tables and charts.

from the effectiveness of KD in promoting written culture”; “awareness from the effectiveness of KD in saving time and preventing repetition”; and “awareness from the effectiveness of KD in overcoming the fear of writing”, the item “awareness from the effectiveness of KD in saving time and preventing repetition” gained the highest mean of 3.8256 and “awareness from values of KD” gained the least mean of 1.9432.

To answer the whole question 1, a one sample t-test was used. Since the absolute value of t is more than 1.96, mean at 95% confidence level is greater than theoretical mean (3), meaning that the null hypothesis that staff’s awareness from the values of KD is at the medium level is rejected. Therefore the awareness rate is at a high level.

2. What are the most important cultural infrastructures and factors effective on knowledge documentation in SCU registrars?

To answer the second question, five items (items 15, 16, 23, 24, and 26 of the questionnaire) including: “developing infrastructures by propagation of KD system”; “providing necessary training to strengthen KD skills”; “reciprocal trust of staff”; “sincerity in documenting and issuing the realities governing the experience (including success and failure)”; and “the culture of documenting organizational strengths and weaknesses and environmental opportunities and threats” were studied. The highest mean was 3.7978 belonging to “reciprocal trust of staff” and the lowest (3.1136) belonged to “developing infrastructures by propagation of KD system”. A one sample t-test proved that these five items are the most important ones in infrastructures and cultural factors. A Friedman’s test ranked the five items as follows: “reciprocal trust of staff”; “sincerity in documenting and issuing the realities governing the experience (including success and failure)”; “providing necessary training to strengthen KD skills”; “the culture of documenting organizational strengths and weaknesses and environmental

opportunities and threats” and “developing infrastructures by propagation of KD system”.

3. What are the most important behavioral infrastructures and factors effective on knowledge documentation in SCU registrars?

Items 20, 21, 22, 36, and 37 of the questionnaire are the ones related to behavioral infrastructures and factors effective on documentation. These are “imitating better methods of KD”; “improving individuals’ assumptions, values, and viewpoints”; “individuals’ beliefs to documenting and issuing knowledge being useful and applicable”; “sense of achievement in KD”; and “individuals’ dynamism”.

The most important behavioral infrastructures and factor was “individuals’ beliefs to documenting and issuing knowledge being useful and applicable” with a mean of 3.3750 and the least important one was “improving individuals’ assumptions, values, and viewpoints” with a mean of 3.1744.

t-test proved that the five items were the most important ones in terms of behavioral infrastructures and factors, and the Friedman’s test proved that there was not any priority among the items and all were ranked equal.

4. What are the most important structural infrastructures and factors effective on knowledge documentation in SCU registrars?

Items 28, 29, 31, 33, 38, and 39 of the questionnaire examined the staff’s viewpoints towards structural infrastructures and factors effective on documentation. These are “establishing a group, department, or secretariat of KD in organization”; “allocating enough facilities and budget to extend documentation system”; “establishing groups consisting of individuals with common knowledge background”; “providing an environment of increased communication

and interaction among staff”; “the existence of appropriate tools and facilities for KD system activities”; and “KD in registrars as an organizational duty”.

“allocating enough facilities and budget to extend documentation system” (mean=3.3563) gained the highest frequency and frequency percentage, and “establishing a group, department, or secretariat of KD in organization” gained the lowest (mean=3.0920).

t-test proved that from staff’ viewpoints, these were the most important indexes of structural infrastructures and factors, and Friedman’s test proved that there was not any priority among these and they were ranked equal.

5. What are the most important legal infrastructures and factors effective on knowledge documentation in SCU registrars?

Items 17, 18, 19, 30 and 40 dealt with legal infrastructures and factors effective on documentation. These were: “support from registrars’ staff of the rights of the documenters of ideas and knowledge”; “observing copyright laws and regulations”; “payment to people who have documented their knowledge”; “existence of organizational laws and regulations related to issuing ideas and knowledge”; and “provision of a law defending the rights of the experienced”.

The greatest frequency and frequency percentage belonged to “observing copyright laws and regulations” (mean=3.3176) and “provision of a law defending the rights of the experienced” was recognized as the lowest (mean=3.1348).

One sample t-test illustrated that the five indexes were the most important ones in terms of legal infrastructures and factors from the staff’s point of view. Freidman’s test proved that there was no priority among these indexes and they were equal in rank.

6. What are the most important technological infrastructures and factors effective on knowledge documentation in SCU registrars?

Items 25, 27, 32, 34, and 35 of the questionnaire dealt with technological infrastructures and factors effective on documentation. They are “establishing and developing communications network”; “designing a data bank to save collected documents framework”; “use of virtual systems to transmit ideas and knowledge”; “existence of internet and intranet networks for more communications among staff”; and “providing computerized facilities”.

The results indicated that “establishing and developing communications network” gained the highest (3.4535) and “providing computerized facilities” found the lowest mean (3.2045).

Although t-test proved that these factors are considered among the most important indexes for technological infrastructures and factors from staff's viewpoints, the Freidman's test proved however that these factors have different priorities. “establishing and developing communications network” (mean=3.23); “existence of internet and intranet networks for more communications among staff” (mean=3.16); “designing a data bank to save collected documents framework” (mean=3.12); “providing computerized facilities” (mean=2.9) and “use of virtual systems to transmit ideas and knowledge” (mean=2.58) are ranked first to fifth.

7. What are the most Important barriers and problems in the way of knowledge documentation in SCU registrars?

Items 41-56 of questionnaire are related to most important barriers to KD. These are: “registrars' experienced staff not cooperating in KD”; “unawareness of registrars' staff of how to do KD”; “registrars' staff's insufficient knowledge about the nature of KD”; “lack of an effective viewpoint towards KD”; “lack of an automated system to

transmit knowledge”; “inability to document knowledge and tacit knowledge”; “unfamiliarity with modern management”; “undue retirement of registrars’ staff and their exit from the system”; “rapid displacement of registrars’ staff”; “lack of enough time for KD”; “instability of regulations related to registrars’ staff”; “personalized managerial practice”; “lack of methodical supervision and control over registrars’ staff’s performance”; “reluctance of registrars’ staff towards KD”; “existence of strong bureaucracy and closed and traditional system; and “oral culture governing the society”.

Among these items “unfamiliarity with modern management” was considered the most important by a mean of 3.6548 and “undue retirement of registrars’ staff and their exit from the system” gained the least importance (mean=3.0349).

Although all the items were considered as the most important barriers in the way of KD, the Friedman’s test however proved that their ranks are not equal. “existence of strong bureaucracy and closed and traditional system” and “undue retirement of registrars’ staff and their exit from the system” were the first and last priorities, respectively.

8. What mechanisms are appropriate to improve and develop knowledge documentation system in SCU?

Items 57 to 70 of the questionnaire dealt with the mechanisms to improve and develop KD. These are: “the existence of independent organizational office posts and full time staff for KD”; “use of pre-designed forms (appropriate for the experience background) for KD”; “existence of an experience-documenting expert to document experiences”; “donating the best experience prize to experienced staff”; “upgrading of staff who have documented their experience”; “salary increase for staff who have documented their experience”; “observing the copyright law for the staff when issuing their knowledge”; “publication of staff’s documented knowledge in special periodicals and books under the name of the person”; “determining a day or week

to introduce the knowledge and the experienced”; “transmitting staff’s knowledge to substitutes before retirement”; “determining jobs statements and responsibilities for KD”: “existence of clear organizational objectives for KD in registrars”; “organizing sessions to express success stories and job memories” and “creating a documented handbook for knowledge, projects and important activities performed in registrars”.

Of these, “transmitting staff’s knowledge to substitutes before retirement” and “determining a day or week to introduce the knowledge and the experienced” were the most and the least important items, respectively (means 5.1628 and 4.0460)

Although the one-sample t-test proved all the items were the most important mechanisms to improve and develop KD system, the Friedman’s test however illustrated that they are not equal in rank. “transmitting staff’s knowledge to substitutes before retirement” with rank mean of 8.93 was the first and “determining a day or week to introduce the knowledge and the experienced” with rank mean of 5.78 was the last.

Conclusion

The current status of SCU’s registrars in terms of documentation and the staff’s awareness of the issue was studied in the present research. The importance rate of all infrastructures and factors effective on documentation as well as the barriers in the way of documentation were then recognized in order to present some solutions to perform documentation and establish a documentation system in SCU’s registrars.

Results indicated that in spite of staff’s tendency to share their knowledge and readiness to document their knowledge as well as their high awareness of the advantages of documentation, they believe that documenters are not encouraged and the existing encouragement system does not encourage knowledge sharing and documentation.

Also cultural, behavioral, technological, legal, and structural infrastructures are the most important respectively for KD. Changes in structure and job description, culture building and paving the way for knowledge transmission, revision in encouragement system along with innovation in information and communication technology were among solutions that can be presented to establish documentation system to improve the registrars' status in terms of documentation.

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Note: all references are in Farsi, the official language of Iran. In Farsi references the dates are in solar hegira, not Christian.

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