The role of the Chief Knowledge Officer (CKO) in knowledge management implementation
(Case study in private banks in Iran)

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Abstract: Many researchers will learn that the knowledge is power. knowledge is an important resource for preserving valuable heritage, Learning new things and new, Solve problems, Create competitive advantage and Establish new positions For the individual and the organization now and for the future. In recent decades has been widely investigated management and knowledge management. At the same time, a wide field of academic research and practical applications has been created. Knowledge management is the process for the flows of knowledge among the people. And it means for achieving innovation in processes, products and services and effective decisions and adapt to the dynamic and competitive market environment. This paper examines the knowledge management and The role of the Chief Knowledge Officer (CKO)in knowledge management implementation Case study in private banks in Iran. The chief task of Chief Knowledge Officer (CKO) that has been made in this study are:1. Create motivations for employees to share their knowledge with others. 2. Create solidarity among the organization members 3. Understanding and appropriate use of technology 4. Creating a learning organization 5. Creation of strategic thinking 6. Create opportunities for sharing and applying knowledge to employees in the organization. Managers of knowledge regarding these components can be efficiently and effectively implement their knowledge management.

Keywords: knowledge management, Chief Knowledge Officer (CKO), knowledge sharing

1- Introduction

Before we start to explore and understand the details of what knowledge management is, and how to implement knowledge management projects and initiatives, we need to first ask ourselves why we want to consider knowledge management in the first place? What are the real benefits that can be gained from effective knowledge management for the individual, the team, the entire organization, the community, the nation, or even the entire planet Earth Knowledge management is far reaching. Maybe you are considering developing your own personal knowledge management competencies, to become a more effective player in the global knowledge economy, or becoming a more competitive knowledge leader and knowledge driven organization. Maybe you wish to develop and apply knowledge management strategies to government, military operations, global poverty eradication, international disaster management and even, now, knowledge management for global climate change. The list is endless. Knowledge management is applied today across the world, in all industry sectors, public and private organizations and humanitarian institutions and international charities. Most

importantly, effective knowledge management is now recognized to be 'the key driver of new knowledge and new ideas' to the innovation process, to new innovative products, services and solutions. Once we can understand the value and benefits to be gained, we will then become far more motivated to look further at the implementation of knowledge management. Doing 'knowledge management' for knowledge management's sake is likely to produce a failure, or mediocre results at very best. Knowledge management, as a discipline, must result in better achieving, or even exceeding, your objectives. The purpose of knowledge management must not be to just become more knowledgeable, but to be able to create, transfer and apply knowledge with the purpose of better achieving objectives.

1. Knowledge management

Knowledge management is the management of the organization towards the continuous renewal of the organizational knowledge base - this means e.g. creation of supportive organizational structures, facilitation of organizational members, putting IT-instruments with emphasis on teamwork and diffusion of knowledge (as e.g. groupware) into

place. Knowledge Management (KM): This is, as the word implies, the ability to manage "knowledge". We are all familiar with the term Information Management. This term came about when people realized that information is a resource that can and needs to be managed to be useful in an organization. From this, the ideas of Information Analysis and Information Planning came about. Organizations are now starting to look at "knowledge" as a resource as well. This means that we need ways for managing the knowledge in an organization. We can use techniques and methods that were developed as part of Knowledge Technology to analyze the knowledge sources in an organization. Using these techniques we can perform Knowledge Analysis and Knowledge Planning. [1]

Knowledge management is an audit of "intellectual assets" that highlights unique sources, critical functions and potential bottlenecks which hinder knowledge flows to the point of use. It protects intellectual assets from decay, seeks opportunities to enhance decisions, services and products through adding intelligence, increasing value and providing flexibility.

Knowledge management complements and enhances other organizational initiatives such as total quality management (TQM), business process re-engineering (BPR) and organizational learning, providing a new and urgent focus to sustain competitive position.

2.   The Importance of Knowledge Management

one of the most significant keys to value-creation comes from placing emphasis on producing knowledge. The production of knowledge needs to be a major part of the overall production strategy. One of the biggest challenges behind knowledge management is the dissemination of knowledge. People with the highest knowledge have the potential for high levels of value creation. But this knowledge can only create value if it's placed in the hands of those who must execute on it. Knowledge is usually difficult to access – it leaves when the knowledge professional resigns .The only irreplaceable capital an organization possesses is the knowledge and ability of its people. The productivity of that capital depends on how effectively people share their competence with those who can use it." – Andrew Carnegie Therefore, knowledge management is often about managing relationships within the organization. Collaborative tools (intranets, balanced scorecards, data warehouses, customer relations management, expert systems, etc.) are often used to establish these relationships. Some companies have developed knowledge maps, identifying what must be shared, where can we find it, what information is needed to support an activity, etc. Knowledge maps codify information so that it becomes real knowledge; i.e. from data to intelligence.[2]

For example, AT&T's knowledge management system provides instant access for customer service representatives, allowing them to solve a customer's problem in a matter of minutes. Monsanto uses a network of experts to spread the knowledge around. Employees can look up a knowledge expert from the Yellow Page Directory of knowledge experts. In the book Value Based Knowledge Management, the authors advocate that every organization should strive to have six capabilities working together:

1. Produce : Apply the right combination of knowledge and systems so that you produce a knowledge based environment.
2. Respond : Constantly monitor and respond to the marketplace through an empowered workforce within a decentralized structure.
3. Anticipate : Become pro-active by anticipating events and issues based on this new decentralized knowledge based system.
4. Attract : Attract people who have a thirst for knowledge, people who clearly demonstrate that they love to learn and share their knowledge opening with others. These so-called knowledge professionals are one of the most significant components of your intellectual capital.
5. Create : Provide a strong learning environment for the thirsty knowledge worker. Allow everyone to learn through experiences with customers, competition, etc.
6. Last : Secure long-term commitments from knowledge professionals. These people are key drivers behind your organization. If they leave, there goes the knowledge.[3]

Knowledge professionals will become the dominant force behind the new economy, not unlike the farmer was once the key player behind the agricultural age. By the year 2010, one-third of the workforce in the United States will be comprised of knowledge professionals. It is incumbent upon all organizations to embrace this need for managing knowledge. Just take a look at those organizations that seem to create value against the competition. You will invariably find a strong emphasis on knowledge management.[4]

4.Knowledge Management Cycle

Early research suggested that a successful KM effort needs to convert internalized tacit knowledge

into explicit knowledge in order to share it, but the same effort must also permit individuals to internalize and make personally meaningful any codified knowledge retrieved from the KM effort. Subsequent research into KM suggested that a distinction between tacit knowledge and explicit knowledge represented an oversimplification and that the notion of explicit knowledge is self-contradictory. Specifically, for knowledge to be made explicit, it must be translated into information (i.e., symbols outside of our heads. Later on, Ikujiro Nonaka proposed a model (SECI for Socialization, Externalization, Combination, Internalization) which considers a spiraling knowledge process interaction between explicit knowledge and tacit knowledge. In this model, knowledge follows a cycle in which implicit knowledge is 'extracted' to become explicit knowledge, and explicit knowledge is 're-internalized' into implicit knowledge. More recently, together with Georg von Krogh, Nonaka returned to his earlier work in an attempt to move the debate about knowledge conversion forwards[5].
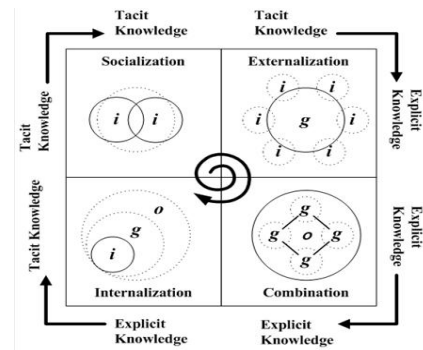
A second proposed framework for categorizing the dimensions of knowledge distinguishes between embedded knowledge of a system outside of a human individual (e.g., an information system may have knowledge embedded into its design) and embodied knowledge representing a learned capability of a human body's nervous and endocrine systems.[6]

A third proposed framework for categorizing the dimensions of knowledge distinguishes between the exploratory creation of "new knowledge" (i.e., innovation) vs. the transfer or exploitation of "established knowledge" within a group, organization, or community. Collaborative environments such as communities of practice or the use of social computing tools can be used for both knowledge creation and transfer. The theory of organizational knowledge creation developed by Nonaka and his colleagues.[7]

The creation of knowledge is a continuous process of dynamic interactions between tacit and explicit knowledge. The four modes of knowledge conversion interact in the spiral of knowledge creation. The spiral becomes larger in scale as it moves up through organizational levels, and can trigger new spirals of knowledge creation.[8]

Socialization. Sharing tacit knowledge through face-to-face communication or shared experience. An example is an apprenticeship.

Externalization. Developing concepts, which embed the combined tacit knowledge. And which enable its communication.

Fig(1): Knowledge Management Cycle

Combination. Combination of various elements of explicit knowledge: building a prototype is an example.

Internalization. Closely linked to learning by doing, the explicit knowledge becomes part of the individual's knowledge base (e.g. mental model) and becomes an asset for the organization.[9]

5. Chief Knowledge Officer (CKO)

CKO is a corporate title for the person responsible for overseeing knowledge management within an organization. The CKO position is related to, but broader than, the chief information officer (CIO) position. The CKO's job is to ensure that the company profits from the effective use of knowledge resources. Investments in knowledge may include employees, processes and intellectual property; a CKO can help an organization maximize the return on investment (ROI) on those investments.[10]

It was Thomas H. Davenport, one of the „founding fathers" of Knowledge Management who has successfully introduced the concept and described the „activity portfolio" of the Chief Knowledge Officer (CKO), fertilizing the discussion about the "knowledge leadership" of an organization (Davenport, 1994). Michael J. Earl and Ian I. Scott created a well-itemized tipology of the CKO's, as integrator and synchronizations of all the relevant aspects of the corporate knowledge flow, building and maintaining a network from knowledge champions, knowledge sponsors, knowledge partners and knowledge skeptics [11]. The expression itself became very popular, but the appearance of CKO's in a corporate leadership hierarchy was very limited in the last decade. Conversely, the sweep of Knowledge Governance could bring the "big time" for the new generation CKO's.[12]

The role of the CKOs is so immature that there is no job specification. Different corporations are likely

to have different expectations of it. So CKOs have had first to work out an agenda for themselves .and they commonly refer to the rapid learning involved[9]This is mainly because their mission or mandate is not clear. everybody here, me included, is on s vertical learning curve about knowledge management Admitted one CKOs [13]. Almost invariably, CKO are appointed by the CEO. One CEO said:"at the time, appointing a CKO was much more of a gut feeling than anything else". In other words, CEOs have appointed CKOs more through intuition and instinct than through analysis or strategic logic.[14]

The CKOs we studied thus had to discover and develop the CEOs implicit vision of how knowledge management would make a difference. On the one hand, the CEOs were thinking boldly;. On the other, they were not thinking in detail. Their goals, however were fairly clear. Usually concerned with correcting one or more of these perceived corporate deficiencies:

- Inattention on the explicit or formal management of knowledge in ongoing operation.
- Failure to leverage the hidden value of corporate knowledge in business development.
- Inability to learn from past failures and successes in strategic decision machining.
- Not creating value or "making money" from knowledge embedded in products or held by employees.[15]

6. The CKOs Network

CKOs spend a lot of time "walking around the organization". In particular, they interact with four type of managers. They look for those who are excited about a particular knowledge management idea or project and thus have identified where improvement is possible and are likely to want to try something now. These are their *knowledge champions*. They also seek to identify from the senior executive cadre those who are enthused by knowledge management. Identify with the concept, and make public statement about it. These are *potential knowledge sponsors* who will invest in and support knowledge management projects.[8]
Surprisingly, several CKOs we studied also spend time identifying executives who are hostile to knowledge management and or the appointment of a CKO. They sense that in a new and as yet ill-defined corporate initiative. Especially one with the CEO's personal support, there will be doubters and reactionaries who must be converted to the cause or avoided for now. These are the *knowledge skeptics*.

Finally the CKO, once he or she initiated a project of any substance, will need allies in implementation. Typically, is executives and HR professionals, these are the *knowledge partner*. [16]
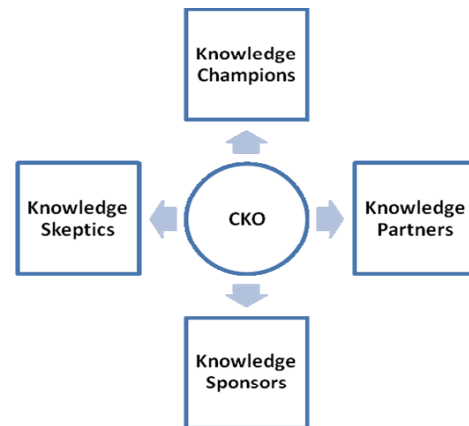

Figure (2): The CKOs Network

7.   Duties of Chief Knowledge Officer (CKO)
Chief Knowledge Officers have the skills to be able to perform their duties in the organization. Chief Knowledge Officer tasks are:

1. Create motivations for employees to share their knowledge with others.
2. Create correlation between organization members.
3. Understanding and appropriate use of technology.
4. Creating a learning organization.
5. Creation of strategic thinking.
6. Create opportunities for sharing and applying knowledge to employees in the organization.
7. Encourage individual learning and innovative thinking
8. Implement reward plans and incentives
9. Determine what technology is needed for the knowledge management effort and implement these technologies.
10. Put processes in place in order to facilitate the creation of organizational learning.
11. Measure the impact of knowledge management on the business.[17]

8. Method

This research has been done to develop knowledge on the role of CKOs. The purpose of this research is an applied research. How to collect data from the research project, is a descriptive Survey. It aims to assess the

awareness about knowledge management and CKOs.

9. Sample

Statistical population is private sector employees of bank that Knowledge management projects are being implemented in banks and in these organizations CKOs are trying to more effectively and efficiently to implement knowledge management. Sample for this research is knowledge management staff of private banks in Tehran and Semnan city that Including those existences are somehow familiar with this process in the bank that are 42 bachelor and 15 master.

10. Data collection tool

Using data collection tools in the investigation is different, Because the data collection tool to the subject, purpose and research design depends. Basis points in the method of research tools are such as: interviews, library studies and questionnaires were used for data collection. A questionnaire to identify the duties of chief knowledge officer is designed with Likert Scale that the Likert Scale is a five point scale that by SPSS software has been analyzed.

11. Validity of questionnaires

Validity means that we are measuring what we want to measure. There are a number of types of validity including:

- Face Validity - whether at face value, the questions appear to be measuring the construct. This is largely a "common-sense" assessment, but also relies on knowledge of the way people respond to survey questions and common pitfalls in questionnaire design;
- Content Validity - whether all important aspects of the construct are covered. Clear definitions of the construct and its components come in useful here;
- Criterion Validity/Predictive Validity - whether scores on the questionnaire successfully predict a specific criterion. For example, does the questionnaire used in selecting executives predict the success of those executives once they have been appointed; and
- Concurrent Validity - whether results of a new questionnaire are consistent with results of established measures.

To increase the validity of research were reviewed the research literature from the library of

theses and research papers and several books. After interviews with managers and experts, research variables are identified and questionnaire was prepared. Finally questionnaire was reformed with faculty advisors consultation.we Ensure that respondents understand the questions in the questionnaire does not have a problem with the final questionnaire it was distributed.

12. Reliability of estimates of questionnaire

Reliability means the consistency or repeatability of the measure. This is especially important if the measure is to be used on an on-going basis to detect change. There are several forms of reliability, including:

- Test-retest reliability - whether repeating the test/questionnaire under the same conditions produces the same results; and
- Reliability within a scale - that all the questions designed to measure a particular trait are indeed measuring the same trait. Questionnaire reliability is measured using

Cronbach's alpha. value 0.89 has acceptable.

13. Analysis of data
13.1. Data analysis tool

In this study, has been used statistical analysis of a specialized SPSS software And the One-Sample Test was used to check Hypothesis.

13.2. Evaluation hypothesis
Evaluation The first hypothesis

Table (1): One-Sample Test To test the role of CKO in Create Motivation

	Test Value = 3				95% Confidence	
	t	df	Sig	Mean Difference	Lower	Upper
motivation	6.572	56	.033	.825	.57	1.08

According to the analysis that in Table (1) is shown, the test sig(P-Value) is 0.033 and is smaller than 0.05 and can be concluded that the motivation of a staff is important for duty CKO for the efficiency and effectiveness of knowledge management programs.

Evaluation The second hypothesis

Table (2): One-Sample Test To test the role of CKO in Create correlation

	Test Value = 3					
	t	df	Sig.	Mean Difference	95% Confidence	
					Lower	Upper
associate	3.38	56	.001	.518	.21	.82

According to the analysis that in Table (2) is shown, the test sig(P-Value) is 0.001 and is smaller than 0.05 and can be concluded that the Create correlation is important for duty CKO for the efficiency and effectiveness of knowledge management programs.

Evaluation The third hypothesis

Table (3): One-Sample Test To test the role of CKO in using information technology

	Test Value = 3					
	t	df	Sig.	Mean Difference	95% Confidence	
					Lower	Upper
technology	8.3	56	.030	1.000	.76	1.24

According to the analysis that in Table (3) is shown, the test sig(P-Value) is 0.030 and is smaller than 0.05 and can be concluded that using information technology is important for duty CKO for the efficiency and effectiveness of knowledge management programs.

Evaluation The fourth hypothesis

Table (4): One-Sample Test To test the role of CKO in Creating a learning organization

	Test Value = 3					
	t	df	Sig.	Mean Difference	95% Confidence	
					Lower	Upper
learning	11.99	56	.020	1.140	.95	1.33

According to the analysis that in Table (4) is shown, the test sig(P-Value) is 0.02 and is smaller than 0.05 and can be concluded that Creating a learning organization is important for duty CKO for

the efficiency and effectiveness of knowledge management programs

Evaluation The Fifth hypothesis

Table (5): One-Sample Test To test the role of CKO in Creation of strategic thinking

	Test Value = 3					
	t	df	Sig.	Mean Difference	95% Confidence	
					Lower	Upper
strategic	12.543	56	.015	1.193	1.00	1.38

According to the analysis that in Table (5) is shown, the test sig(P-Value) is 0.015 and is smaller than 0.05 and can be concluded that Creation of strategic thinking is important for duty CKO for the efficiency and effectiveness of knowledge management programs.

Evaluation The sixth hypothesis

Table (6): One-Sample Test To test the role of CKO in Creating Development opportunities

	Test Value = 3					
	t	df	Sig.	Mean Difference	95% Confidence	
					Lower	Upper
opportunity	18.0	56	.043	1.421	1.26	1.58

According to the analysis that in Table (6) is shown, the test sig (P-Value) is 0.043 and is smaller than 0.05 and can be concluded that Creation of strategic thinking is important for duty CKO for the efficiency and effectiveness of knowledge management programs.

Conclusion

Organizations are realizing that intellectual capital or corporate knowledge is a valuable asset that can be managed as effectively as physical assets in order to improve performance. The focus of knowledge management is connecting people, processes and technology for the purpose of leveraging corporate knowledge. The database professionals of today are the Knowledge Managers of the future, and they will play an integral role in making these connections possible.

Based on the obtained results can be concluded that knowledge is a public good and is not Assets to maintain a superiority over another, and has overflowed its positive effects. Knowledge management is a new branch of management that emphasizes the knowledge.Material and physical assets to knowledge assets will shift. KM collects all information and knowledge around an organization systematically and analyzes Knowledge to achieves goals.that has been made in this study are:1. Create motivations for employees to share their knowledge with others. 2. Create solidarity among the organization members 3. Understanding and appropriate use of technology 4. Creating a learning organization 5. Creation of strategic thinking 6. Create opportunities for sharing and applying knowledge to employees in the organization. Managers of knowledge regarding these components can be efficiently and effectively implement their knowledge management.

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