

The Study of Knowledge Management Effect on Performance Rate of Employees

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Abstract

In today's world, communities and organizations are seeking to gain a sustainable competitive advantage. In this regard, knowledge management is a useful tool for organizations to develop their intellectual capital, to encourage innovation and to maximize desirable performance. This study was conducted with the aim of understanding the concept of knowledge management and its impact on organizational success and applying it to improve employee performance. The statistical population of this study consisted of all employees of Auxin Steel Company and 380 subjects were randomly selected among them. The findings of this study showed that whatever employees to be familiar with knowledge management components, their accessibility to these components becomes more and will enhance their performance. This research tries to see whether knowledge management has an impact on employees' performance or not. The results indicated that knowledge management application is the integral component of organizations and its application increases the knowledge and information of employees and consequently increase organization's productivity.

Keywords: Knowledge management, Performance, Participation in the knowledge, organizing knowledge

Introduction

Today, most experts believe that organizations should look for effective ways to disseminate organizational knowledge among various levels of manpower throughout the organization. Hence, they have begun extensive efforts by creating basic changes in their attitude and organizational strategies to use and manage knowledge in all working and organizational aspects systematically. One of the factors influencing knowledge management success which should be considered in making strategy is organizational structure, so that the mechanical structures or hierarchies that mainly have characteristics of functional organization support system-oriented strategy of knowledge management well. Many organizations decide to set aside the traditional management which is based on the hierarchies of authorities and try to engage all members of the organization and individuals in the current affairs completely. This change has led to the variation in the organization's shape and the appearance of new shapes such as learning organizations (Davenport, 1998). Learning organization is where new patterns of thinking grow, collective thinking promotes and individuals learn how to learn together (Alvani, 2002). Having a clear and well planned strategy is one way to achieve success in knowledge management. This strategy is a key factor for an organization to organize his resources and capabilities to achieve the knowledge management objectives. For more attention to the knowledge management strategy, it should be able to contribute to the business of organization (Holsapple, 2009). Although knowledge management looks very simple, organizations that are trying to become Knowledge Foundation Organizations encounter to the main problems. First, there is not a correct answer to all the problems that they are facing and

furthermore, any specific instruction for performing methods and concepts of knowledge management is not available. Variation as a strategy for development should be created in the basic structures and values of the organization and thereby organization can be distinguished among competitors (Karlenzig, 1999).

Statement of the problem

Today, organizations more than ever are faced with various problems and in the meantime, organizations can achieve to success that take advantage of opportunities and benefit from threats to their advantage. Changes in recent decades and increasing competition, dynamics and environmental uncertainty lead organizations to flexibility and responding to market needs and innovations quickly in order to remain in competition scene. In this regard, the role of human knowledge and knowledge management in organizations becomes apparent more than ever. Global business leaders increasingly believe that human capital knowledge is the most important organizational capabilities and is considered as the base of all competitive advantages (heat & Ireland, 2005). Knowledge is one of the most important sources of organizations and companies to achieve competitive advantages and due to its dynamic nature requires a precise management (Massa & Testa, 2009). This strategic resource contributes to organizations to gain appropriate competitive advantage and maintain it. If organizations to able to create knowledge and disseminate it, their ability and capacity will increase to respond to today's changing conditions (Choi, 2008).

In recent years, competition between organizations, especially in the manufacturing sector has been considered to attract educated employees and to develop practices to apply their knowledge with the aim of creating sustainable competitive advantage. There are several reasons for the success of organizations in the knowledge-based advantage that if it shapes around the central capability, will guarantee the viability and sustainability of the organization (Dennis, Heath & Jackson, 2001). In this space, the main and long-term successes of organization are increasingly shaped around hundreds or thousands of small and big action of pioneer employees in the change and innovation cycle. This is because the maintenance of knowledge-oriented employees is one of the main challenges that the knowledge base organizations' management is encountered to it. One of the explicit objectives of knowledge management refers to the value creation in organizations. Support for effective decision making is one of the most common ways to create value from knowledge workers. Value creation is not necessarily mean economic value creation. Nonprofit organizations, government agencies and charitable organizations create value by uneconomical methods. They create what is called social capital. Knowledge of knowledge workers who can create value in organizations by effective decision is prerequisite for knowledge management. Knowledge cycle process consists of six main sections. Firstly, the existing knowledge in the organization and its resources (such as explicit and implicit knowledge of people, databases, documents, etc.) should be identified, acquired and stored properly. Then, in order to make knowledge valuable that leads to synergy and re-birth of knowledge; it should be shared and disseminated between people. The conversion of informal, intellectual and personal (implicit) knowledge to recorded formal knowledge (explicit) is one of the key objectives of knowledge management which decrease the risk of losing valuable knowledge of organization and company's memory when employees leave collaboration or when human resources are modified (Relo, 2011).

Today's postindustrial society is an information society in which amplifier technologies gradually replaced by knowledge increasing technologies (Ahmdpour Dariyani, 2002). In today's complex and dynamic environments, it is essential for organizations continuously apply new knowledge in the form of creation, validation and working in their products and services.

Now, knowledge management discussion has become one of the main topics in the management studies all over the world (Nonaka et al, 2000). Therefore, according to the knowledge

management definitions and its objectives in definitions, the main goal of knowledge management is value creation to acquire competitive advantage. Also, issues such as the complexity of the business world, economic developments, and intensity of competition, new technologies and rapidly changing customer needs have made organizations to benefit from advantages like rapid flow of information, group decision-making, more coordination with business partners and holistic approach. The main purpose of these issues has been expressed to achieve maximum value (Chopra, 2007). Knowledge management can increase business performance and the competitive power of companies in international markets.

This study seeks to investigate knowledge management effect on employees' performance in an industry as complexity and dynamic stimulating factor of an industry and stimulus power enhancement in increasing knowledge application with the aim of strengthening employees' performance power. Therefore, organizations management by relying on superior knowledge should make more rational decisions on important issues for improving knowledge-based performance.

Background of study

Rezai Malak (2013) in a study entitled "A model to prioritize the knowledge management factors in performance improvement of customer relationship management" has concluded organizations that properly implement knowledge management from three perspectives of customers, employees and market will achieve to the acceptable improvement in customer relationship management in his organization.

Shafie Nick Abadi (2012) in a study entitled "A framework for knowledge management processes in the supply chain" writes that in the introduced framework four main processes and a complementary process are defined. Then, the existing processes and indicators in the framework have been analyzed through factor analysis technique. Results showed that all of these processes are necessary for the supply chain and the order of importance is: 1) Transfer, share and distribution 2) Utilization, application and exploitation, 3) Acquisition, creation and production of knowledge 4) Organizing, storage 5) evaluation and feedback.

Akhavan (2012) in his research entitled "Presenting a model to examine the impact of knowledge management strategies on the performance of universities" writes, 9 managers of top public universities who had at least the management post of faculty dean have been interviewed. The qualitative data analysis results supported the existence of principal components and sub-components in the model. The direct effect of knowledge management strategies on universities' performance was rejected and this effect is through critical success factors and knowledge management actions. It was also revealed that the impact of knowledge management strategies on knowledge management practices in university is only through critical success factors. This model can help to understand the components of knowledge management and can suggest a practical guide for successful deployment of knowledge management in higher education of Iran.

Hashem Pour, (2010) in a study entitled "The study of knowledge management infrastructures' status in Tabriz University from the perspective of faculty members" concluded that the familiarity rate of research community with the concept of knowledge management is in the low level. Among the examined infrastructural factors, four factors of organizational culture, organizational structure, processes and financial resources are in inappropriate condition and two factors of manpower and technology are in appropriate condition.

Haji Noori (2010) in the study of the relationship between cybernetics and knowledge management in organization expresses that, based on the conducted analysis, the dimension of variety and limitation and the process of converting and transferring knowledge were excluded

because of having weak indicators. Additionally, research findings verify the conceptual model with data collected and significant and interactive relationship between cybernetic and knowledge management process.

Niazi (2010) in the study of analyzing the relationship between knowledge management processes and biometric scale argues that results showed a positive correlation between six indicators of knowledge management and biometric scale.

Zouavi et al (2011) in a study have investigated the factors that hinder knowledge sharing. These factors include lack of self-efficacy which indicates individual factor in knowledge sharing; lack of information and communication technologies which indicates technical factor and lack of organizational encouragement to demonstrate organizational factor impede knowledge sharing. Research findings indicate a negative relationship between these three factors and knowledge sharing behavior and organizational encouragement which is the most effective factor.

Vasheet, Kumar and Chandar (2010) in a study have examined how researchers of research centers in India understand the barriers and facilitators of knowledge management. In this regard, knowledge gathering, knowledge creation and knowledge dissemination have been examined from three personal, social-organizational and technical aspects. Results indicate that researchers are involved with the personal and social-organizational aspects of knowledge management more than the technical aspects. Individuals and their interactions lead to the creation of knowledge and contribute to its flow.

Choi and Jung (2010) in the study of knowledge management (human-centered, focused and dynamic systems) in the stock market, write that the stock market did not show any special reaction to dynamic strategy. The human-centered approach had the highest financial performance in services companies and system-centered approach in financial companies.

Choi et al (2008) about explicit-oriented, implicit-oriented, introverted, extroverted, introverted, implicit introverted and explicit extroverted knowledge management in financial manufacturing and service companies write, explicitly oriented strategy will lead to better performance compared to the implicit-oriented. A combination of two introverted and extroverted strategies will have higher performance than implementing one of them. The consideration of both implicit introverted and explicit extroverted strategies will lead to the better results.

Research hypotheses

- There is a significant relationship between knowledge detection and creation by employees and their performance.
- There is a significant relationship between participation in knowledge by employees and their performance.
- There is a significant relationship between knowledge organizing by employees and their performance.
- There is a significant relationship between the application of knowledge by employees and their performance.
- There is a significant relationship between the evaluation of knowledge by employees and their performance.
- There is a significant relationship between knowledge management and employees' performance.

The statistical population and sampling method

The statistical population of this study consisted of all employees of Auxin Steel Company and 380 employees as statistical sample were selected by using Morgan table and stage-random sampling method. The research method was descriptive, post- event type.

Research Tools

The library and field methods were used for data collection. Therefore, the available books, theses and articles were used for theoretical parts and conceptual definitions and questionnaire was used in collecting the field data.

Research hypothesis testing

Table 1. Descriptive characteristics between the components of Knowledge Management and Performance

Mean	SD	N	Variables
18/65	0/85	380	Performance
2/95	0/79	380	Knowledge creation
2/97	0/74	380	Knowledge participation
2/97	0/77	380	Knowledge organizing
2/62	0/70	380	Knowledge application
2/76	0/81	380	Knowledge performance evaluation
2/75	0/65	380	Knowledge performance

Table 2. The relationship between the components of Knowledge Management and Performance

Sig.	Result	Correlation coefficient	Variables
0/0000	+	0/425	Knowledge creation
0/0000	+	0/376	Knowledge participation
0/0000	+	0/370	Knowledge organizing
0/0000	+	0/275	Knowledge application
0/0000	+	0/329	Knowledge performance evaluation
0/0000	+	0/390	Knowledge performance

Regarding the first hypothesis, the results of Table 2, indicate a significant relationship between the component of knowledge detection and creation and performance at level of 0.01. The value of this relationship (r) is equal to 0.425. The obtained positive correlation for this component indicates that the higher level of using knowledge detection and creation by employees will lead to their higher performance. In the second hypothesis, there is also a significant relationship between the component of participation in knowledge and performance at level of 0.01 and the value of this relationship (r) is equal to 0.376 and the obtained positive correlation for this component shows that whatever employees participate in knowledge more, their performance will be higher too.

By looking at the results of the third hypothesis testing, it can be concluded that there is a meaningful relationship ($r = 0.370$) between the knowledge organizing component and performance at the level of 0.01 and this positive correlation indicates that the more knowledge organizing by employees, the higher performance.

The fourth hypothesis is also confirmed and results demonstrate a significant relationship between knowledge application and performance at the level of 0.01 in which the value of relationship (r) is equal to 0.275 and this positive correlation demonstrates that whatever employees use technology more, their performance is higher too.

The fifth hypothesis testing results showed a meaningful relation ($r = 0.329$) between knowledge evaluation and performance at the level of 0.01. Therefore, this positive correlation indicates a direct relation between knowledge evaluation by employees and their performance.

According to the sixth hypothesis testing results, there is a significant relation ($r = 0.390$) between knowledge management and performance at the level of 0.01 and also the obtained positive correlation shows whatever employees apply knowledge management more, their performance will be higher too.

Discussion and conclusion

According to the research findings, it can be concluded that the knowledge management application is the integral component of organizations and its application increases the knowledge and information of employees and consequently increase organization's productivity. Human capital knowledge is the most important organizational capabilities and is considered as the base of all competitive advantages. Knowledge is one of the most important sources of organizations and companies to achieve a competitive advantage and due to being dynamic requires a careful management. Organizations can acquire and maintain an appropriate competitive advantage through this strategic resource. If organizations create and disseminate knowledge, their ability and capacity to respond to various conditions of today's world will increase.

References

- Abtahi, S. H. & Salvati, A. (2006). Knowledge management in Organization.
- Ahmadpoor Dariani, M. (2002). Entrepreneurship: definitions, theories, models. Tehran, Nevisande Publication.
- Alvani, S. M. (2002). Learning organizations, new generation of learning organizations, Scientific and Professional Journal of Management and Development, 18, Tehran, Education and Research Institute of Management Publication.
- Choi, B. & Lee. H. (2008). An empirical investigation of knowledge management styles and their effect on corporate performance. Retrieved from <http://www.elsevier.science.com>
- Davenport. T & prusak, L. (1998). Working knowledge: How organizations manage what they know. Boston: Harvard Business school press.
- Holsapple, C. (2009), Knowledge and Its Attributes. Berlin: Heidelberg, pp. 165-189.
- Karlenzig, W. (1999), Behind Microsoft's Digital Dashboard: KM. Retrieved from [http://www.destinationerm.com/km/derm-k article, aspid=156](http://www.destinationerm.com/km/derm-k%20article,asp?id=156).
- Nonaka E. & Takeuchi, H.(2000), The Knowledge Creation Company- How Japanese Companies Create the Dynamics of Innovation. Oxford: Oxford University Press.