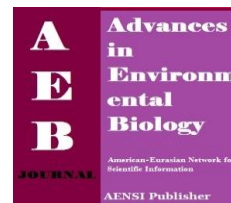




AENSI Journals

Advances in Environmental Biology

ISSN-1995-0756 EISSN-1998-1066

Journal home page: <http://www.aensiweb.com/aeb.html>

Developing a Model for Knowledge Creation Focusing on the Communities of Practice: Payame Noor University Tehran- North Case Study

¹Seyede Masoomeh Mirjafari Lashkajani, ²Marzieh Babaeian Pour

¹Graduate student of Payame Noor University (PNU), Iran

²Assistant Professor of Industrial Engineering, Department of Engineering, Payame Noor University (PNU)

ARTICLE INFO

Article history:

Article History

Received 25 March 2014

Received in revised form 20 April 2014

Accepted 15 May 2014

Available online 5 June 2014

Key words:

Management Knowledge Creation Knowledge, communities of practice, success keys factors, structural modeling, Nonaka and Taguchi model

ABSTRACT

The first step in the development of knowledge programs and mechanisms of the knowledge creation is identifying the affecting factors on knowledge creation in the organizations. Growing multitude of studies conducted in recent years in the field of communities of practice, shows the importance of Cops in the global trade area and its importance and concepts related to it have been considered more. From this perspective, many researchers have studied in the field of affecting the Cops on the knowledge creation; sharing and management. But so far, there are not full investigations in connection with the identification of affecting factors on the Cops and how it affects the organizational knowledge creation and there is a lack of research. Hence, in this study, the Cops as the important tools for knowledge creation have considered in a learning organization and in order to develop this argument, the first identified comprehensively affecting factors on the Cops and the 18 factors have been identified that affect the Cops and has been studied the impact of Cops on the organizational knowledge creation based on Nonaka model and Taguchi and are investigated and examined as a case study in Payame Noor University Tehran- North. The findings of this study indicate that the key factors in the success of Cops that classified after a comprehensive review in six factors including the Organization, Optimizing Interactions, Infrastructure, Supporting tools, Strategies and goals and also Organizational support will be have multiplier effect on the process of knowledge among students.

© 2014 AENSI Publisher All rights reserved.

To Cite This Article: Seyede Masoomeh Mirjafari Lashkajani, Marzieh Babaeian pour, Developing a model for knowledge creation focusing on the communities of practice: Payame Noor University Tehran- North case study. *Adv. Environ. Biol.*, 8(9), 231-243, 2014

INTRODUCTION

In the general definition, the community of practices is a "group of individuals who have a concern, set of problems, or a passion about a subject to share and exchange their knowledge and expertise based on their continually interactions" [82,83]. However, the ability of distinctive is a feature of speech communities of practices requires a very precise vision. Communities of practice have increasingly important in a lot of organizations as The American productivity and quality center in 2004 about the communities of practices says "communities of practices become the core strategy of the global organization. When a group of people are together, create, share and learn from each other in direct confrontation. Communities of practices shared desire of knowledge; a desire to remain and need to share problems, experiences, insights, models, tools and best practices is pushed". Communities of practices and its importance are in the global organization that is currently being developed. Knowledge on the importance of the social aspects of applying knowledge management technology is increasing. Today, much of the experience and expertise are concentrated as social structures for the creation and sharing of practice and knowledge are considered feasible [27]. Organizations that focus on creating a knowledge system are selected mainly looking for a way to manage the explicit knowledge creation, knowledge sharing and management. The emerging communities of practice as an option for the system-knowledge by establishing a social process where a voluntary organization in addition to creating and sharing their knowledge to explicit knowledge to participate and to learn from other members help each member [45,22,26,56,83]. Despite such interest to the communities of practice and ever collective agreement among researchers about the factors affecting key communities of practice has been reached. Hence, the study found no comprehensively all aspects of community what is intended. And also conducted a review of research indicates that the major manufacturing organization based on research conducted and business is still the subject of the organization of the foundations of knowledge so dramatic. The organization's competitive advantage depends on

Corresponding Author: Seyede Masoomeh Mirjafari Lashkajani, Graduate student of Payame Noor University (PNU), Iran
E-mail: masoomehmirjafari@yahoo.com

the deployment of effective and there's nothing community. This research tends to comprehensively identify the most important factors of communities of practice that organizations are able to use it to benefit from it reached.

Background:

Knowledge Management:

Writers and scholars, knowledge management, define knowledge management from diverse perspectives; here are some definitions that can be expressed.

Rubintz defined as Knowledge Management includes all the procedures that understands that organizations manage their knowledge assets technology, which includes how to gather, store, transport, use, and to create knowledge. From Larry Prusak's view Knowledge management is an attempt to uncover hidden assets into the minds of the members of the organization so that all employees have access to it. Davenport defines knowledge management, as: Knowledge Management is, Operations discover, organize and summarize the information asset is the way to improve staff knowledge. But from the perspective of Saint- Ongo [73] Knowledge management is the enterprise value of hidden assets. When this goal is to be able to be supplied a way to foster organizational and individual to create, share and gather knowledge capable. This implies high value distinguish for human beings. School of Management, Texas argues that knowledge management is, systematic process to discover, select, organize, summarize and present data to such that give better recognition in the area of interest. Knowledge management helps organizations to experiences, knowledge and insights gained its activities on the acquisition, storage and use of knowledge in order to focus on problem solving, dynamic learning, strategic planning applications and decisions take advantage of this knowledge. Knowledge management is not only declining asset prevent mental and brain, but also continually adds to the wealth [6]. Finally we can refer to Wikipedia definition you are not organized to identify, select, organize and publish freely. This management for problem solving, learning, planning, strategic planning and decision able to make dynamic, efficient and effective manner.

Knowledge Creation:

Knowledge creation is a continuous process and the excellence, during which individuals acquire new knowledge and new vision of the world, extends to the border of the old to the new. Creating knowledge is, "the journey of being to become " that interact with each other in the micro and macro levels and changes in both occur a person (the micro) as the environment in which interaction with it is (The macro level), will be affected and the impact on it [66]. The basis of the knowledge of those who work can be carried out, the way that tacit knowledge and explicit work to refine existing and develop new knowledge is shared and combined. Thus, knowledge creation requires cooperation among individuals and units. To create new knowledge generally contains at least six stages are as follows:

- Initial sharing knowledge and experience among members
- Creating effective new product and service concepts based on shared knowledge
- Explain the concepts deeply rooted in such as market studies , trend studies
- Focus interviews, Benchmarking or company strategy
- Prototype product or Initial service offering
- Employing the Global Knowledge, concepts, examples and suggestions the entire company.

These steps show that knowledge creation process not be displayed in map format but is a multi-source phenomenon. Knowledge creation in strategy and leadership, as well as in terms of organizations.

Communities of Practice:

Communities of practice, it especially is as the main tool to convert knowledge "implicit" with "explicit" is recognized. Review of America productivity and quality Center show that 95 % of the top functional organization communities of practice know very important for knowledge management strategy in its organization. Communities of practice can help people work and share tacit knowledge sharing (someone) in a particular field or to work. Beginning in 1990, Orr studies performed on individual service firms and Xerox Company under the communities of practice, organizational learning used. Orr emphasized that the basis of standardization through free training, satisfy the learning process did not work, but people in connection with the communities of practices through knowledge sharing with fellow images based on your feedback by internal informal voluntary to learn from each other, according to the findings presented by Orr, Brown in [70], with responsibility for Organizational learning research Centre Xerox corporate, potential work integrated learning and innovation proposed through communities of practice [45]. The other famous case study at Xerox was conducted by Brown and Duguid who alive modern societies concept of communities of practices. They define it as "it is the actual work performed together with a shared sense of purpose and a real need to know what others know" were defined [15,16]. Again, Wenger and Snyder [82] recognized two of the most theorists, communities of practice such as "the non- formal shared expertise and passion for a venture capital common "was defined as the communities of practices. Lesser and Prusak structure a resolve issues and problems facing

organizations that is, to define and rise to organizations can invest in human and his knowledge through the communities of practices capital work by increasing the activity of gathering and communities considering a job as the critical enterprise social assets vital to know [56]. Lave, Wenger and many other researchers have been studying the social context of work. However, challenges have arisen due to members of management knowledge and enhance business communities, investigate effectively, they need to be reached. In recent research on community do have focus, several factors are identified and described in the table below have been examined:

Table 1: Identify success factors communities of practice.

Number	Success factor of communities of practice	Reference
1	Specific objectives and strategies	Khosla and Cho, Borzillo [14], Keritner [51]
2	Cash prizes	Conghaila and Cinneide [28] Keritner [51]
3	Organizational interaction	Homan and Prada [40] Carbery et al [18], Flint [32]
4	Organizational structure	Borzillo [14], Carbery et al [18], Joen et al [45]
5	Nonfinancial prize, Recognition appreciation and Maintain intellectual property	Conghaila and Cinneide [28], Keritner [51]
6	Member safety	Borzillo [14](2007)
7	Organizational support	Thompson [79]
8	Size organization	Calvay [17]
9	Members independence	Keritner [51]
10	Information technology	Koh and Kim [50], Homan and Prada [40], Joen et al [45], Lee and Chengline [54] Flint [32], Philpott and pike [71]
11	Innovation and creativity	Calvay [17]
12	Organizational culture	Hug et al., [41]
13	Humanities and social infrastructure	Monavvarian et al [63]
14	Empowerment	Kelly et al [46], Yen et al [85], Jung [43], Flint [32], Adamson and Bromiley, Monavvarian et al [63]
15	Assessment standards	Khosla and Cho [50]
16	Leadership support	Keritner [51], Borzillo [14]
17	Members Interaction	Grima and Jossierand [34], Flint [32]
18	Creating institutional memory	Chang et al [20], Lee et al [54]

The same as in Table 1 were determined by examining the main factors taken into consideration in recent research, a series of socially influential work was identified and then in the form of a questionnaire to assess the impact of the knowledge products.

Research Methods:

Type of Study Design, Data Collection:

In this study, is used the survey method indeed we utilized the survey methods to collect data. After an overview of the theoretical background of the existing literature on the factors affecting the community of practice, were identified a series of factors. In this study we tried to review the factors affecting the community of practice in many researches in recent years, and found a series of factors in educational institutions such as universities that are applicable. In this study, is used a questionnaire survey and statistical analysis. According to the presented table in this paper (Table 1) that designed on reviewing articles in the fields of CoPs, was identified the questionnaires including the factors affecting on the CoPs. To measure every question of questionnaire was used five-point Likert scale that are arranged from very high to very low points and respondents express their comments on each question by placing a number from 1 to 5, the highest response to the weakest response.

Statistical Community and Sampling:

To investigate the factors affecting the communities of practice, have been selected students of Payame Noor University Tehran-North. PNU Tehran-North has 8000 students includes BSc, MSc and PHD students. In this paper, based on Cochran model questionnaires were randomly contributed 450 samples among different students of PNU of Tehran-Northern that of these, 412 questionnaires filled out and between the filled questionnaires, 10 questionnaires were incomplete and removed from the analysis and finally 402 questionnaires were analyzed.

Validity:

To validity of questionnaire, it was sent for a group of professionals with expertise in the field of knowledge and communities of practice. According to the experts comments create changes in the questionnaire and reform. It was defined as a questionnaire consisting of 18 variables after adding and omitting some factors. In the final questionnaire, the factors affecting the communities of practice effectively define to the educational organizations

Reliability:

In our study, Cronbach's alpha coefficient used to test the reliability of the data. Nunnally is recommended score of 0.7 and above as logical and reasonable score. To reliability of the questionnaire and then send it to the experts and change it based on their opinions and were sent into groups of 35 students via e-mail and the results were analyzed in the factor analysis software that reliability of the questionnaire was given to 35, which is equivalent to Cronbach's alpha is 0.804, which indicates the reliability of data. After this step, collection data of statistical community began. At this stage, 450 questionnaires distributed accordingly that was answered 412 questionnaires, the response rate is 91.55%.

The Analysis of Data and Research Findings:**Demographic Description of the Sample:**

At this stage, 450 questionnaires distributed accordingly that was answered 412 questionnaires, the response rate is 91.55%. Based on information from respondents, the demographic characteristic of respondents is according to the following table (Table 2). Classification and identification of success factors of CoPs has used the factor analysis. Basically, principle factor analysis is used to ensure sufficient number of data for factor analysis before the index "sampling adequacy". KMO value for this index is equal to 0.833, which means suitable for factor analysis. Bartlett's test also showed that the condition is satisfied. Using principal components analysis and varimax rotation, 18 indicators were selected in this study and summary to 6 factors that we refer to the component matrix and rotated factor matrix, factor analysis test can be interpreted and name factors that is shown in the table 3:

Table 2: Characteristics of respondents.

Characteristics of respondents	gender		Age				Educational degree		
	male	female	Under 20	25-30	25-30	Over 30	BSc	MSc	PhD
Frequency	191	211	67	248	61	26	305	89	8
%	47.5	52.5	16.5	62	15	6	76	22	2

Table 3: Naming factors.

Number	Factors	Indicators
1	Organization	Organization communications, Organizational structure
2	Optimizing interactions	Assessment standards, Leadership support, Members Interaction and Creating institutional memory
3	Infrastructure	Organizational Culture, Humanities and social infrastructure, Empowerment
4	Supporting tools	Members independence, Information technology, Innovation and creativity, Nonfinancial prize, Recognition appreciation and Maintain intellectual property, Member safety, Cash prizes
5	Strategy and goals	Specific objectives and strategies
6	Organizational support	Organizational support, Size organization

Correlation Tests:

Such as that observed in this study, 18 variables were classified in six categories which these groups, defined as six independent variables in this research. Now we proceed to investigate the relationship between the key variables in the communities of practice with knowledge creation based on correlation and regression equations. Correlation test level 0.01(2-tailed) was performed. The correlation of these variables with knowledge creation of the 402 samples collected in Payame Noor Tehran- North revealed the highest correlations among the fifth factor (strategy and goals) and the creation of knowledge, with the value of 0.339** (Symbol (*) means it is a strong correlation between the variables. In the second level of correlation the fourth factor (Supporting tools) value was 0.259** and so the second factor (Optimizing interactions) with 0.149** and the first factor with value of 0.143** to be more low they have taken. It was found that there is no significant correlation between the third factor (infrastructure) and the sixth factor (organizational support). Table of correlation between the independent variables and knowledge creation can be seen below (Table 4)

As we know if the significant values are less than 0.05 we can evaluate the correlation between variables otherwise it conveys the absence of correlations between variables. Accordingly, as it is observed significant

value for factors I, II, IV and V is less than 0.05 which means that there is a strong correlation between variables and also this value for the third and sixth factors is more than 0.05 and it conveys the correlation between these factors and knowledge creation

Table 4: Correlation between the six success factors of communities of practice and knowledge creation.

Success factor in communities of practice	Knowledge Creation	
	Correlation coefficient	significance
Organization	.143**	.004
Optimizing interactions	.149**	.003
Infrastructure	.081	.107
Supporting tools	.259**	.000
Strategy and goals	.339**	.000
Organizational support	.068	.174

** Correlation is significant at the 0.01 level (2-tailed).

Evaluating the Relationship between Independent and Dependent Variables with the Assist of Linear Regression:

After evaluating the correlation between independent and dependent variables, regression equations based on these four variables is formed. In order to know that with how many independent variables having stronger correlation with the dependent variable the regression equation should be consisted, we evaluated R^2 which means it is the more share of knowledge creation it has consisted of. Which in the formation of regression equation with four variables the largest share of knowledge creation included approximately. Now we evaluate the regression equation based on the four independent variables, constant value of knowledge creation and variables coefficients examined by software (Table 5).

Table 5: Regression coefficients.

	Constant	Organization	Optimizing interactions	Supporting tools	Strategy and goals
Knowledge creation	3.265	0.085	0.113	0.154	0.223

The regression equation between success factors of communities of practice and knowledge creation:

Knowledge creation = 3.265 + 0.085 * (Organization) + 0.113 * (Optimizing interactions) + 0.154 * (Supporting tools) + 0.223 * (Strategy and goals)

Equation 1. Regression equation between success factors of communities of practice and knowledge creation

Discussion:

A model represents the relationship between the variables and in this unit before explaining the final model we explain the smaller models that are components of final model. In each component model it is shown how the latent variables are measured by observed variables. After running any of these programs, the results were obtained in the structural model forms 1 to 6. As appears in Figure 1-6, strategy and goals of the component model, in the forms of the path coefficient for the two variables specific objectives and strategies, cash prizes are, respectively, 0.75 and 0.55. This means that in the strategy and goals factor the more important criteria are specific objectives and strategies and a criterion for cash prizes is less important and the coefficient of the impact of strategy and goals variable on the success factors of CoPs is 1.29.

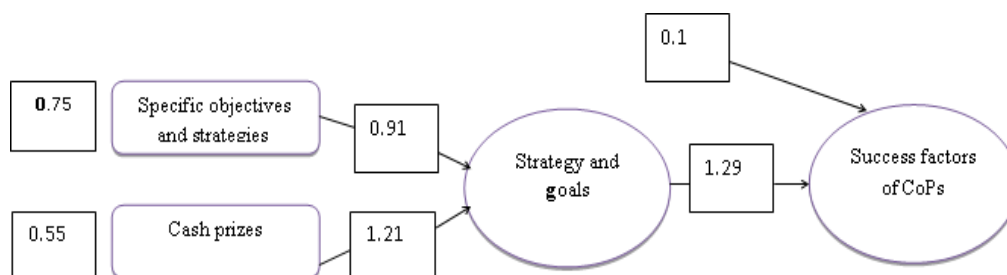


Fig. 1: Strategy and goals component model.

This component of the model equations are:

Strategy and goals = Specific objectives and strategies * 0.91, Errorvar = 0.75

Strategy and goals = Cash prize * 1.21, Errorvar = 0.55

Equation 2. Equation component model of the strategy and goals

Figure 2 shows that the coefficient impact of the organization factor to member safety (1.01) is greater than the coefficient impact to organizational interactions (0.93), the organizational structure (0.91) and the non-financial prize (0.97). This means that respondents think member safety is more important than the other criteria. The impact of structural factor on success factors of communities of practice is 1.23.

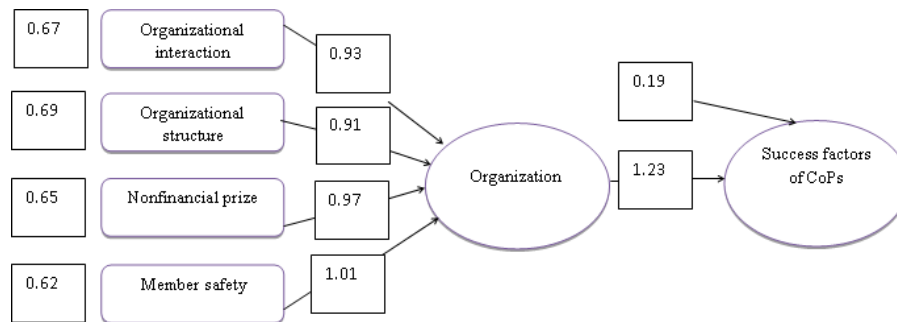


Fig. 2: Organization component model.

This component of the model equations are:

$$\text{Organization} = \text{Organizational interaction} * 0.93, \text{Errorvar} = 0.67$$

$$\text{Organization} = \text{Organizational structure} * 0.91, \text{Errorvar} = 0.69$$

$$\text{Organization} = \text{Nonfinancial prize} * 0.97, \text{Errorvar} = 0.65$$

$$\text{Organization} = \text{Memory safety} * 1.01, \text{Errorvar} = 0.62$$

Equation 3. Equation component model of the organization

In the organizational support factor according to model component of figure 3 the criteria of organizational support and size organization have respectively direction coefficient of 1.23 and 0.54. The organizational support has the greatest impact and the size organization has the lowest impact on organizational support. The impact coefficient of organizational support variable on the success factors of CoPs is equal to 1.06.

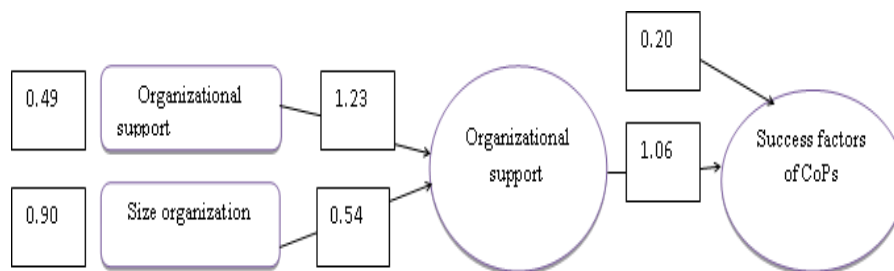


Fig. 3: Organizational support component model.

Equation 3 expresses the relationship between the component models variables:

$$\text{Organizational support} = \text{Organizational support} * 1.23, \text{Errorvar} = 0.49$$

$$\text{Organizational support} = \text{Size organization} * 0.54, \text{Errorvar} = 0.90$$

Equation 4. Equations component model of organizational support

Figure 4 indicates that the three Member's independence, information technology and Innovation and creativity effect on supporting tools. Meanwhile as the coefficient direction to information technology (1.10) is larger than the other two coefficients (1.05 and 0.81), so this criterion has effect on supporting tools. The impact coefficient of supporting tools on the success factors of CoPs is equal to 0.93.

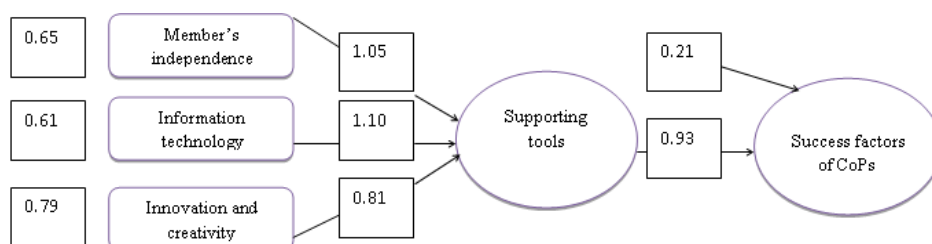


Fig. 4: Supporting tools component model.

This effect can be represented as the following equation:

Supporting tools = Members independence * 1.05, Errorvar = 0.65

Supporting tools = Information technology * 1.10, Errorvar = 0.61

Supporting tools = Innovation creativity * 0.81, Errorvar = 0.79

Equation 5. Equations component model of supporting tools

Component model in figure 5 suggests three independent variables influence on a dependent variable.

These criteria (organizational culture, infrastructure and empowerment) consist of 0.79, 1.31 and 1.00 which among these three variables, the infrastructure has the highest impact. It can be understood from the model that the infrastructure with a factor of 0.78 effects on CoPs.

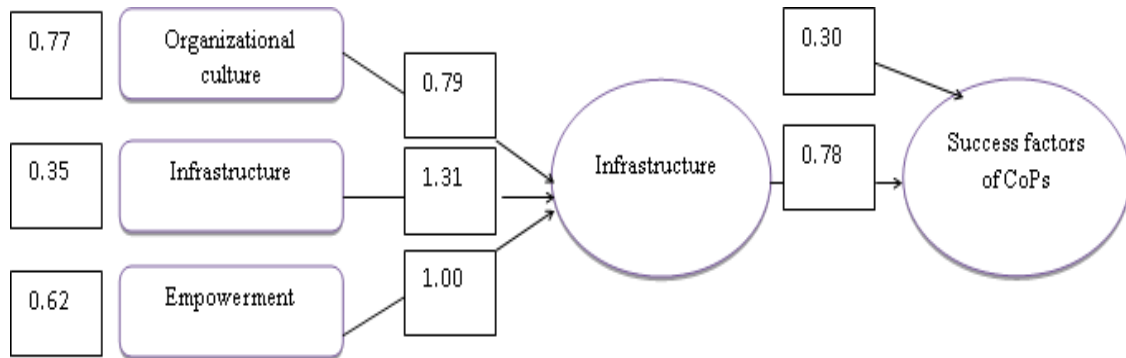


Fig. 5: Infrastructure component model.

The relationship between the variables is displayed as part of the model equation:

Infrastructure = organizational culture * 0.79, Errorvar = 0.77

Infrastructure = infrastructure * 1.31, Errorvar = 0.35

Infrastructure = Empowerment * 1.00, Errorvar = 0.62

Equation 6. Equations component model of infrastructure

Figure 6 indicates that the four factors include assessment standards, leadership support, member's interaction and creating institutional memory effect on optimizing interactions. As the leadership support factor (1.01) and member's interaction (1.00) are almost identical and have the same effect and impact coefficient of optimizing interactions variable on the success factors of CoPs is equal to 0.67.

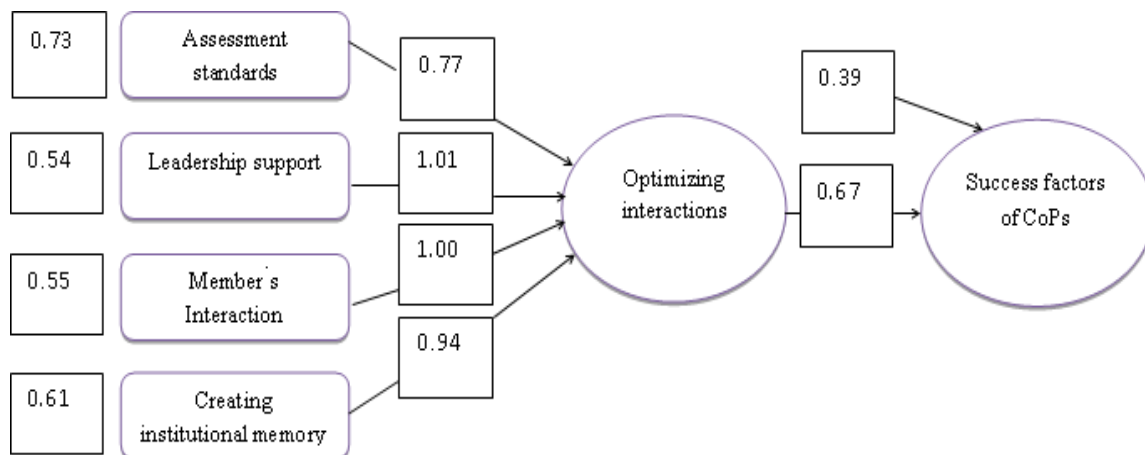


Fig. 6: The optimizing interactions component model.

This effect can be represented as the following equation:

Optimizing interaction = Assessment standards * 0.77, Errorvar = 0.73

Optimizing interaction = Leadership support * 1.01, Errorvar = 0.54

Optimizing interaction = Members Interaction * 1.00, Errorvar = 0.55

Optimizing interaction = Creating institutional memory * 0.94, Errorvar = 0.61

Equation 7. Equations component model of optimizing interaction

The impact of each criterion on the relevant factors can be seen in Table 6.

Table 6: Impact of each factor on the success factors of CoPs.

Dependent variable	Impact factor	Latent variable	independent variable	Impact factor
Success factors of communities of practice	1.29	Strategy and goals	Specific objectives and strategies	0.91
			Cash prizes	1.21
	1.23	Organization	Organizational interaction	0.93
			Organizational structure	0.91
			Nonfinancial prize, Recognition appreciation and Maintain intellectual property	0.97
			Member safety	1.01
	1.06	Organizational support	Organizational support	1.23
			Size organization	0.54
	0.21	Supporting tools	Members independence	1.05
			Information technology	1.10
			Innovation and creativity	0.81
	0.78	infrastructure	Organizational culture	0.79
			Humanities and social infrastructure	1.31
			Empowerment	1.00
	0.67	Optimizing interactions	Assessment standards	0.77
			Leadership support	1.01
			Members Interaction	1.00
			Creating institutional memory	0.94

Structural model of the relationship between success factors of community of practice and knowledge creation, which reflects the effect of six factors on the dependent variable of the success factors of CoPs and the relationship of the CoPs on knowledge creation is represented in Figure 7. The success factors of CoPs include strategy and goals, organization, organizational support, supporting tools, infrastructure and optimizing interactions. Although all these variables have a significant impact on the success of the communities of practice, the tracks of the success of CoPs variable to other variables shows that reflect the latent other variables that reflect the latent variable, strategy and goals which is described by two independent variables has the highest impact (the path coefficient 1.29) on the success of the communities of practice and there is organization factor (path coefficient 1.23) with some differences which is measured by four variables Organizational interaction, Organizational structure, Nonfinancial prize and Member safety. Other factors considered in the next category, which respectively include organizational support, supporting tools, infrastructure and optimizing interactions, with coefficients of 1.06, 0.93, 0.78, 0.67.

Conclusion:

These measures were assessed at the university under study and 18 identified criteria classified in six categories. These factors include strategy and goals, organization, organizational support, supporting tools, infrastructure and optimizing interactions. These factors were presented as influenced factors in the success factors of CoPs in Payame Noor University and considered the basis of this research. Statistical analysis of the case study was carried out and the results were discussed and evaluated. At this University, the highest correlation has been among the fifth factor (strategy and goals) and knowledge creation. Accordingly we can focus on the importance of the appropriate policies by the university and plans to support students in the creation of the appropriate field in order to establish student groups. In this study it was clear that certainly any program requires supporting tools for the implementation in the campus and we can see the fourth factor (supporting tools) in the second rank in correlation test providing new facilities and possessing of technologies suitable for Payame Noor University Have a significant impact on students in the formation of CoPs form and its impact on knowledge creation. And also in the formation of regression equations, strategy and goals mentioned as first factor of the regression equation that expresses a particular focus from the university on the University's current policy and changes based on advances in technology and knowledge. In evaluating regression equation analysis revealed that in statistical population of woman in the highest correlation is between factor 4 (strategy and goals) and the knowledge creation and it means women in Payame Noor University Tehran- north consider the university's politics as an important factor in knowledge creation. By looking at the policies of this university we can understand that short time and long time policies of university has had a lower focus on students.

In spite of some differences between women and men in the university both groups want their university to re-examine their policies and they consider the current policies as an obstacle to their knowledge creation. The interesting point in this study was observed in the age groups. As the students become older their tendency becomes more and more to create their knowledge however they consider policies of university. As a barrier to their knowledge and when we refer to lower age groups. They have to criticize supporting tools and organizational support and when we evaluate the correlation between factors and knowledge creation in

educational groups (levels), we can see a confirm about ideas of different age groups on the base that the senior students expect university Tehran- North to pay more attention to their knowledge creating activities. Also, we understand the university policies as a barrier to their activities and they we not satisfied with the supporting tools which the university provided with them.

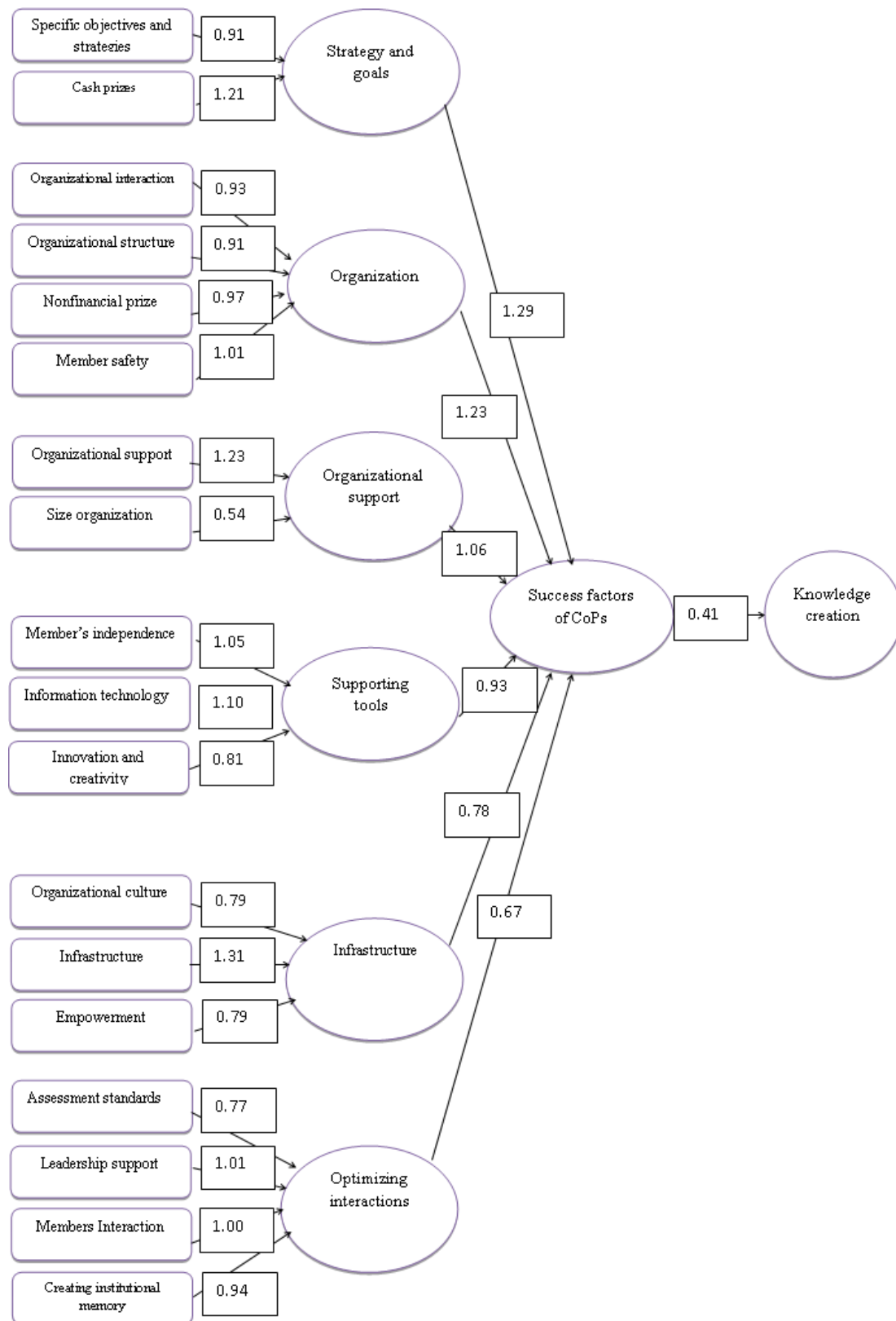


Fig. 7: The Structural model.

This information in the study can improve the direction of university activities effectively so that the university can get a good understand of the students to plan in order to improve knowledge policies by separating the students. The structural model represented by means of Lisrel software and in order to have extra evaluation each of the model components was explained. Accordingly the latent variable strategy and goals which has described by two independent variables specific objectives and strategies and cash prizes, has the highest effect (with direction coefficient of 1.24) on the success factors of CoPs. By investigating the statistical results of the study, they came to this conclusion that how the Payame Noor University Tehran- North focuses on the students as valuable assets of its knowledge by providing the six factors and providing students with better knowledge services, they will achieve many comparative advantages that may be lead to the progress of the position of this university among other universities and in fact the students of this university. So they intend to create and present their knowledge in their university. However; the requirements of supporting these groups hasn't provided. According to the increasing importance of knowledge orientation and understanding of the advantages resulted from it, the university should have a plan in order to provide requirements and improve its knowledge- orientated students and definitely one of the ways of their success is by making groups of student members efficient on knowledge creation and this study has provided efficient factors which can develop the achievement way of educational organizations to these knowledge groups but the way these factors take influence and the degree of their influence on other factors is something that need more studies in this area. Also due to limited data availability, this study selected Payame Noor University Tehran- north which generalization of this research to more universities could be good subject for future research. The author hopes to be based on research help to discover more hints of CoPs that continues to their growth in global communities.

REFERENCES

- [1] Abbasi, Z., 2007. " An overview of the models walking management of knowledge in organizations, , Razi International Conference Center ,
- [2] Adamson, Dave and Bromiley, Richard, 2013. "Community empowerment: learning from practice in community regeneration", *International Journal of Public Sector Management*, 26(3): 190-202.
- [3] Adenfelt, M., K. Lagerstorm, 2006.."Enabling knowledge creation and sharing in transnational projects", *International Journal of Project Management*, 24: 191-198.
- [4] Afjeh, Ali Akbar, Miri, Abdol Reza, 2009. "The pattern of abilities to enhance piece of performance car industry employees in Iran," *Iranian Journal of management*, fourth year, 14: 149-169.
- [5] Afrazeh, Abbas, 2007. "The management of knowledge (concepts,models, measurement and implementation) " , publisher , author , second edition.
- [6] Ahmadi, A. Ali Akbar Salehi, 2012. " Knowledge of Management " , Tehran: Payam Noor
- [7] Akhavan ,Peyman, Bagheri, Roh Allah, 2010. "From Idea to knowledge management " , Tehran: ATI far.
- [8] Akhavan, Peyman, Ramezan, Majid and YazdiMoghaddam, Jafar, 2013. "Examining the role of ethics in knowledge management process case study: An industrial organization", *Journal of Knowledge based Innovation in China*, 5(2): 129-145.
- [9] Al Azali, Ralla, 2010. "Communities of practice, knowledge creation and corporate Sustainability: A Study of Bahrain Service Industry", Curtin University of Technology.
- [10] Anderson, A.R., S.L. Jack, 2002. "The articulation of entrepreneurial social capital: Content and process", *Entrepreneurship and Regional Development*, 14(3): 193-210.
- [11] Azure, S., Galilee, M. Hosseini, 2010. " The strategy , facilitation team making mood " *Knowledge for Strategic Studies (Strategic Management*, (2): 144-127.
- [12] BeikZadeh, MarzbaniNaser, 2006. "Leadership and formidable organizational of human resource management, strategic Knowledge Model " , Fourth International Conference - Management International
- [13] Birkinshaw, J., T. Sheehan, 2002. "Managing the knowledge life cycle" *sloanmanagementreview*,44(1): 75-83.
- [14] Borzillo, Stefano, 2006. "Communities of Practice to Activity Manage Best Practices",*DeutscherUniversitats-Verlag*.
- [15] Brown, J. and P. Duguid, 1998. "Organising knowledge", *California Management Review*, 40(3): 90-111.
- [16] Brown, J.S. and P. Duguid, 1991. "Organizational learning and communities of practice: Toward a unified view of working, learning and innovation", *Organization science*, 2(1): 40-57.
- [17] Calvey, David, 2011. "Creativity in Action: Creative Multimedia SMEs in Manchester", Manchester Metropolitan University, UK, IGI Global. Pp: 382-396.
- [18] Carbery, Ronan, Garvan, Thomas, O'Brien, Fergal and Whelan, Karen, 2011. "Within- and Between-COP Knowledge Sharing in Knowledge- Intensive Firms, IGI Global.

- [19] Chang, Jaegyong, Choi, Byounggu and Lee, Heeseok, 2004. "An organizational memory for facilitating knowledge: An application to e-business architecture", *Expert systems with Applications*, 26(2): 203-215.
- [20] Chang, Jaegyong, Choi, Byounggu, Lee, Heeseok, 2004. "An organizational memory for facilitating knowledge: An application to e-business architecture", *Expert systems with Applications*, 26(2): 203-215.
- [21] Chang, M.K. and Cheung, 2001. "Determinations of the intention to use Internet/ WWW at work: A confirmatory study", *Information and Management*, 39(1): 1-14.
- [22] Chen, M.Y., J. Huang, and Y.C. Cheng, 2009. "Measuring knowledge management performance using a competitive perspective: An empirical study", *Expert Systems with Applications*, 36(4): 8449-8459.
- [23] Chen, Yuh-Jen, Chen, Yuh-Min, 2012. "Knowledge evolution course discovery in a professional virtual community", *Knowledge-Based system*, 33: 1-28.
- [24] Choi, Byounggu, Lee, Heeseok, 2002. "Knowledge management strategy and its link to knowledge creation process", *Expert systems with Applications*, 23(3): 173-187.
- [25] Choo, C.W. and N. Bontis, 2002. *The Strategic Management of Intellectual Capital and Organizational Knowledge*, Oxford University Press, New York, NY.
- [26] Chu, Mei-Tai and Khosla, Rajiv, 2009. "Index evolutions and business strategies on communities of practice", *Expert systems and Applications*, 36(2/1): 1549-1558.
- [27] Coakes, Elayne and Clarke, Steve, 2006. "Encyclopedia of communities of practice in information and knowledge management", Idea group reference.
- [28] Conghaile, O. Máirtín and O. CinnéideMicheál, 1990. "Promoting local initiative through a community development competition", 6(3): 325-329.
- [29] Dixon, J.S., 2010. "Connecting creativity, technology, and communities of practice: exploring the efficacy of technological tools in support of creative innovation". Doctoral thesis, University of Toronto.
- [30] Topousis, E., J. Daria, Dennehy, L. Cornelius, Lebsock, Kenneth, 2012. "NASA's experiences enabling the capture and sharing of Technical expertise through communities of practice", *Actaastroautica*, Desember, pp: 499-511.
- [31] Engelbart, D., 2000. A Draft OHS-Project Plan, [Http://www.bootstrap.org/augment/BI/2120](http://www.bootstrap.org/augment/BI/2120), Html.
- [32] Flint, R., Warren, 2012. "Practice of Sustainable Community Development", New York, Springer Science and Business.
- [33] Gourlay, S., 2006. "Conceptualizing knowledge creation: a critique of Nonaka's theory", *Journal of Management Studies*, 43(7): 1415-1436.
- [34] Grima, François and Josserand, Emmanuel, 2011. "The Roles of Peripheral Participants and Brokers: Within and Beyond Communities of Practices", IGI Global.
- [35] Habibi, A., 2012. "Education LISREL software applications" website and academic affairs, director of Pars.
- [36] Hafeez, Khalid, Alghatas, Fathalla, 2007. "Knowledge management in a virtual community of practice using Discourse Analysis, *The Electronic Journal of knowledge management*", 5(1): 29-42.
- [37] Hara, N., R. Kling, 2002. Communities of practice with and without information technology. In E.M. Rasmussen, E. Toms, 2002. *American Society of Information Science and Technology 2002: Information, connections and community* (Philadelphia, PA; November 18-21.), 39: 338-349. Medford, NJ: Information Today, Inc .
- [38] Hislop, Donald, 2005. "Knowledge management in organizations: a critical introduction", Oxford University Press, Business & Economics, pp: 269.
- [39] Hoegl, M., A. Schulze, 2005. "How to support knowledge creation in new product development: An investigation of knowledge management methods", *European Management Journal*, 23(3): 263-273.
- [40] Homan, S. Mark and Prada, Henry, 2010. "Promoting community change: Making it Happen in the real world."
- [41] Huang, Jih-Jeng, 2009. "The evolutionary perspective of knowledge creation: A mathematical representation", *Knowledge - Based system*, 22(6): 430-438.
- [42] Ichijo, Kazuo, Ikujiro, Nonaka, 2006. "Knowledge creation and management: New challenges for managers", Oxford University press, New York
- [43] Jung, J., Jason, 2009. "Knowledge distribution via shared context between blog-based knowledge management systems: A case study of collaborative tagging", *Expert systems with Applications*, 36(7): 10627-10633.
- [44] Jafari, M., Akhavan, Peyman, M. Jafari, 2012. "knowledge management, comprehensive look and the tools and techniques", Tehran: Rasa.
- [45] Jeon, Su-Hwan, Kim, Young-Gul and Koh, Joon, 2011. "Individual, social and organizational Contexts for active knowledge sharing in communities of practice", *Expert systems with Applications*, 38(10): 12423-12431.

- [46] Kelly, Cheryl, M., Hoehner, M. Christine, Baker, A. Elizabeth, Ramirez, K. Laura, Brennan and Brownson, C. Ross, 2006. "Promoting physical activity in communities: Approaches for successful evaluation of programs and policies", 29(3): 280–292.
- [47] Keshavarzi, Ali, 2009. "Barriers and facilitate the sharing of the of knowledge in organizations " , conference center , the Razi International, pp: 14-13.
- [48] Khuzaimah, MD. KhairilHizar and Fadzil Hassan, 2012. "Uncovering Tacit Knowledge in Construction Industry: Communities of Practice Approach", Social and Behavioral Sciences, 50: 343–349 .
- [49] Kodama, Mitsuru, 2008. "New knowledge creation through ICT dynamic capability", Library of Congress cataloguing in publication data, pp: 207.
- [50] Koh, J. and YG. Kim, 2004." Knowledge sharing in virtual communities: an e-business perspective", Expert systems and Applications, 26: 155-166.
- [51] Kreitner, Robert, 2001. "Management Arizona State University", Houghton Mifflin Company.
- [52] Lamsa, Tuija, Natti, Satu, 2011. "Knowledge Sharing Within and Between Communities of Practice in a Knowledge Intensive Organization", IGI Global.
- [53] Lave, J., E. Wenger, 1991. "Situated learning Legitimate peripheral participation", Cambridge University Press.
- [54] Lee, Hsin-Yun and Lin, Cheng-Lin, 2012. "Developing project communities of practice-based knowledge management system in construction, 22: 422-432.
- [55] Lee, Jeehae, Suh, Eui-Ho and Hong, Jongyi, 2010. "A maturity model based communities of practice evolution framework: A case study of strategic CoPs in a Korean company", Expert systems with Applications, 37(3): 2670-2681.
- [56] Lesser, E. and J. Stork, 2000. "Communities of practice and organizational performance, IBM System Journal, 40(4): 831-841.
- [57] Lewis, I. and S. Newnam, 2011. "The development of an intervention to improve the safety of community care nurses while driving and a qualitative investigation of its preliminary effects", 49(10): 1321–1330.
- [58] Lyytinen, K., 1987. A Taxonomic Perspective of Information Systems Development: heoretical Constructs and Recommendations.
- [59] Mcadam, R., 2004. "Knowledge creation and idea generation: A critical quality perspective", Tec novation, 24: 697-705.
- [60] Mehralian, Ghollamossein, Akhavan, Peyman, Rashekh, Hamid Reza and RajabzadehGhatari, Ali, 2013. "A framework for human capital indicators in knowledge- based industries: evidence rom pharmaceutical industry", Measuring Business Excellence, 17(4): 88-101.
- [61] Meyer, M., M. Zack, 1996. "The design and implementation of information products". Sloan Management Review, 37(3): 43-59.
- [62] Mir, M. and Rahaman, 2003. "Organizational knowledge creation and commercialization of state mail service", The international journal of public sector management, 16(5): 373-392.
- [63] Monavvarian, Abbas, Asgari, Nasser, Akhavan, Peyman, Ashena, Mostafa, 2013. "Developing social capital for facilitating knowledge management practices", International Journal of Social Economics, 40(9): 826-844.
- [64] Monavvarian, Abbas, Mosakhani, Mohammad, Akhavan, Peyman, Asgari, Naser, 2012. "Model of human infrastructure- social empowerment of knowledge management practices", Information and Technology Management, 4(6): 159-178.
- [65] MshkiEsfahani , A., Mehdizadeh, conduct, 2011. " Knowledge Management and OrganizationIn the era of knowledge" , a comprehensive site manage, pp: 1-17.
- [66] Nonaka, I., R. Toyama, N. Konno, 2000. "SECI, Ba and leadership: Aunified model of dynamic knowledge Creation"; Long Range Planning, 33(1): 5-34.
- [67] O'Dell, C. and Grayson, C. Jackson, 1998. "If Only We Knew What We Know: The Transfer of Internal Knowledge and Best Practice", The Free Press.
- [68] O'Dell, C., C.J. Grayson, 1998. 'If only we knew what we know: identification and transfer of internal best practices'. California Management Review, 40(3).
- [69] Oinas-Kukkonen Harri, 2004. "The 7C Model for Organizational Knowledge Sharing, Learning and Management", Proceedings of the Fifth European Conference on Organizational Knowledge, Learning and Capabilities (OKLC' 04), Innsbruck, Austria.
- [70] Orr, J., 1990. "Talking about machines: An ethnography of a modern job", PhD thesis, Cornell University.
- [71] Philpott, Elly and Pike, David, 2013. "Virtual-team-community-of-practice (VTCoP) theory can inform online course delivery", Journal of Applied Research in Higher Education, 5(2): 222-238.
- [72] Prusak, L., D. Cohen, D.E. Smith, 1997. "Managing knowledge for business success: A conference report", New York: Conference Board.

- [73] Saint-onge, Hubert, Wallace, Debra, 2012. "Leveraging communities of practice for strategic advantage", Library of Congress.
- [74] Sallan, Joaquin Gairin, De AlavaaMiren Fernandez, Barrera-Corominasa, Aleix and Rodríguez-Gómez, David, 2012. "Review of Knowledge Creation and Management processes through communities of practice in Public Administration", *Social and Behavioral Sciences*, 46: 2198–2204.
- [75] Simard, Caroline, Rice, E. Ronald, 1996. "The practice gap: barriers to the diffusion of best practices", <http://www.scils.rutgers.edu/qci/qci.html>.
- [76] Swan, J., S. Newell and M. Robertson, 2000. "Limits of it-driven knowledge management initiatives for interactive innovation process: Toward a community-based approach", In *Proceedings of the 33rd Hawaii international conference on system science*.
- [77] Szulanski, Gabriel, 1996. "Exploring Internal Stickiness: Impediments to the Transfer of Best Practice Within the Firm", *Strategic Management Journal*, , Special Issue: Knowledge and the Firm, 17: 27-43.
- [78] Tasviri Ghamsar, Fateme, H. Salehi, 2008. "The Library enterprise specialized in management: report from the Institute of Engineering Agriculture ", *Journal books, library and information science in scientific - extension (humanities) Twenty years*, 3(83).
- [79] Thompson, Leigh, 2002. "Measuring Work Group Effectiveness", *Uni. Of Tennessee, Knoxville*.
- [80] Thüring, M., J. Hannemann, J.M. Haake, 1995. "Designing for Comprehension: A Cognitive Approach to Hypermedia Development", *Communications of the ACM*, 38(8): 57-66.
- [81] Tseng, Shu-Mei, 2010. "The correlation between organizational culture and knowledge conversion on corporate performance", *Journal of Knowledge Management*, 14(2): 269-284.
- [82] Wenger, E. and W.M. Snyder, 2000. "Communities of practice: The organizational frontier", *Harvard Business Review*, 78(1): 139-145.
- [83] Wenger, E., T. McDermott and W.M. Snyder, 2002. "Cultivating communities of practice", Boston, MA: Harvard Business School Press.
- [84] Wiig, M., 2002. "Knowledge management in public administration", *Journal of Knowledge Management*, 6(3): 224-239.
- [85] Yen, Chia-Hui, L. JU, Teresa, Hsu, Meng-Hsiang and Chang, Chun-Ming, 2007. "Knowledge sharing behavior in virtual communities: The relationship between trust, self-efficacy, and outcome expectations", *International Journal of Human-Computer Studies*, 65(2): 153–169.
- [86] Zahra, A. Shaker and Sapienza, J. Harry and Davidsson, Per, 2006. "Entrepreneurship and Dynamic Capabilities: A Review, Model and Research Agenda", *Journal of Management Studies*, 43(4): 917-955.
- [87] Zboralski, K., 2009. "Antecedents of knowledge sharing in communities of practice", *Journal of Knowledge Management*, 13(3): 90-101.
- [88] Zollo, M., S.G. Winter, 2002. "Deliberate Learning and the Evolution of Dynamic Capabilities", *Organization science*, 13(3): 339-351.
- [89] Zuckerman, A. and H. Buell, 1998. "Is the world ready for knowledge management?", *Quality Progress*, 31(6): 81-84.