

**INFLUENCE OF ORGANIZATIONAL FACTORS ON  
KNOWLEDGE SHARING**

**A Babu Naidu\***

Research Scholar , Department of Management Studies, Sri Venkateswara University, Tirupati.

**Dr. B. Amarnath\*\***

Professor, Department of Management Studies, Sri Venkateswara University, Tirupati.

**Dr. N. Adi Krishnaiah\*\*\***

Assistant Director, Sri Venkateswara Institute of Medical Sciences, Tirupati.

**INTRODUCTION**

Knowledge Sharing is the behavior of sharing one's own knowledge with other members within one's organization. Knowledge sharing happens in teams when team members share task-relevant ideas, information, and suggestions with each other (Srivastava et al., 2006).

Teams have been gaining a lot of importance in software development organizations. Software development companies are meeting their organizational objectives using software development teams. The team members are knowledge workers who are spending a major part of their time searching for information. In such cases sharing the knowledge will help them accomplish their tasks easily.

Many large companies are considering knowledge sharing solutions as the most important strategic solutions according to a report and survey of European executives by the Economist Intelligence Unit (EIU.com, 2003), sponsored by Tata Consultancy Services.

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 2, Issue 12, March 2016**

Knowledge Workers who work in the software development projects spend more than 20% of their time searching for information. If customers need to be served better, operation cycles need to be reduced, innovation and delivery of high quality products is important, project success rate needs to be increased knowledge sharing needs to be better understood by the companies.

Although knowledge sharing is crucial but still are not able to share due to various factors. Therefore, it is always important to know about those important factors which might increase knowledge sharing. People do not prefer to share their knowledge due to multiple reasons. Those reasons include organizational factors, personal factors and technical factors. It is important to come up with those factors which will help to increase the knowledge sharing of employees so that teams achieve their goals successfully. Majority of the studies have focused on technological issues. There are certain other factors from organizational perspective on which very less research work is done and thus this research focuses on those factors. Those factors include Management Support, Knowledge Sharing Culture and Team Leadership.

**REVIEW OF LITERATURE**

- K. D. Joshi et al (2004) in the study “Knowledge Transfer Among Face-to-Face Information Systems Development Team Members: Examining the Role of Knowledge, Source, and Relational Context” analysed the role of knowledge transfer in information systems development projects (ISD). Their findings suggested that in face-to-face ISD teams, an individual is perceived to transfer a significant amount of knowledge to his/her team members if an individual extensively interacts with other team members and is perceived as reasonably credible.
- Gee-Woo Bock et al (2005) in their study “Behavioral Intention Formation in Knowledge Sharing: Examining the Roles of Extrinsic Motivators, Social-Psychological Forces, and Organizational Climate” demonstrated that individuals'

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 2, Issue 12, March 2016**

knowledge does not transform easily into organizational knowledge even with the implementation of knowledge repositories.

- According to Srivastava et al., (2006) “Knowledge sharing does not happen automatically in a team, and the team’s leader has an important role to play in making it come about. Their study “Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance” results showed that empowering leadership was positively related to both knowledge sharing and team efficacy, which, in turn, were both positively related to performance.
- Adel Ismail et al (2007) in their study titled “Organizational culture and knowledge sharing: critical success factors” found that trust, communication, information systems, rewards and organization structure are positively related to knowledge sharing in organizations.
- Radwan Alyan Kharabsheh (2007) in their study titled “A Model of Antecedents of Knowledge Sharing” identified that effective knowledge sharing has three links- values held by organisational members, market orientation, organisations’ absorptive capacity. They argued that the successful sharing of knowledge requires enablers in the form of information technology infrastructure, a reward system that reinforces and encourages knowledge sharing activities and a positive social interaction that creates trust among organisational members.
- According to Renzl, B. (2008) in the study “Trust in management and knowledge sharing: The mediating effects of fear and knowledge documentation” Knowledge sharing enables organizations to develop skills and competencies, increase value and sustain their competitive advantage. She demonstrated that trust in management increases knowledge sharing through reducing fear of losing one’s unique value and improving willingness to document knowledge.
- Abhilasha and Ebrahim (2010) in the study “Knowledge management practices in Indian information technology Companies” investigated the degree of awareness and implementation of KM principles and practices in Indian information

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 2, Issue 12, March 2016**

technology (IT) companies. The interpretation of data revealed that the Knowledge Management Index (KMI) for awareness and commitment is very high as per the pre-defined rating scale but the involvement of top management in allocating the necessary resource flow to initiate and sustain knowledge management practice is needed.

- Hadi Teimouri et al (2011) in their study “Studying the effective organizational factors on knowledge sharing between employees of governmental organizations” identified the effective organizational factors on knowledge sharing between employees of governmental organizations. The results of this research indicated that organizational technology, strategy, culture, structure and process affect on knowledge sharing between employees of governmental organizations.
- Feng-Chuan Liu and Lin Cheng (2012) in their study “Team Climate and Knowledge Sharing” investigated the relationship between knowledge sharing with team innovation climate and individual characteristic of altruism. The study focused on the “people perspectives” of knowledge sharing behavior. The factors at issues included the team innovation climate, job characteristics, and individual characteristic of altruism. The results suggested that the degree of altruism and the team climate of participative safety significantly and positively related to knowledge sharing behavior.
- S. Gurursamy and P. Balaji (2013) in their study “Managing Global Software Projects through Knowledge Sharing - A Study with Reference to Co-located and Globally-Distributed Software Teams” presented a holistic framework of knowledge sharing objectives and applied the framework to study the existence of knowledge sharing process in a software development company for the purpose of examining the effectiveness of knowledge sharing. They found that it is essential to create a “knowledge sharing culture” as part of a knowledge management initiative.

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 2, Issue 12, March 2016**

- Sharon and Rory (2013) in the study “Acquiring and sharing tacit knowledge in software development teams: An empirical study” examined how do software development teams acquire and share tacit knowledge. What roles do tacit knowledge and transactive memory play in successful team performance? Their results showed that team tacit knowledge is acquired and shared directly through good quality social interactions and through the development of a TMS with quality of social interaction playing a greater role than transactive memory. Both TMS and team tacit knowledge predict effectiveness but not efficiency in software teams.
- Raed Kanaan et al (2013) examined the impact of knowledge sharing enablers - enjoyment in helping others, knowledge self-efficacy, top management support, organizational rewards, and ICT use on knowledge sharing capability while studying “The impact of knowledge sharing enablers on knowledge sharing capability”. This study found that knowledge sharing enablers affect knowledge sharing. Also, it found that the most influential dimension of knowledge sharing was enjoyment in helping others; followed by ICT use, organizational rewards, and then top management support.

**RESEARCH OBJECTIVE**

- To examine the influence of organizational factors on knowledge sharing in software project teams

**Research Hypothesis**

H<sub>0</sub>1: Organizational Factors: Management Support, Knowledge Sharing Culture and Team Leadership do not influence Knowledge Sharing

**Research Methodology**

The primary data was collected through convenience sampling method by administering a questionnaire to 660 software engineers working in different positions in software project teams as team members, (software developers, engineers, analysts,

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 2, Issue 12, March 2016**

testers etc.) team leaders and managers in 22 software development companies which are following knowledge sharing practices.

Descriptive analysis (Mean, Standard Deviation) was used to describe the characteristic of sample and the respondent to the questionnaires. Correlation coefficients ( $R^2$ ) were used to determine the relationship between the dependent and independent variables. In addition, the study incorporates statistical tools - the multiple regression, ANOVA test to arrive at the proper and valid conclusions.

**RESULTS AND DISCUSSION**

**Table -1 : Mean and Standard Deviation for Management Support**

Code	Statement	Mean	Std Dev
MS1	Our organizational policies facilitate knowledge management and knowledge sharing activities	4.1636	0.81742
MS2	Our team members are aware of business plans, business models and objectives	3.8833	0.81899
MS3	Our organizational knowledge sharing process is supported by various communication platforms and technological facilities	3.8742	0.79506
MS4	My company rewards individuals when they share their knowledge	3.5773	1.01211
MS5	Top management allocates considerable part of time and other resources to ensure knowledge sharing	3.9167	0.93199

Source: Primary data

Results from the table -1 show that employees agree to the organizational factor - Management Support. Most of the respondents agree to the policy support. The point company rewarding individuals when they share their knowledge gains comparatively less support from the respondents. Opinions are also not much consistent for the rewards.

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 2, Issue 12, March 2016**

**Table -2 : Mean and Standard Deviation for Knowledge Sharing Culture**

Sl No.	Statement	Mean	Std Dev
KSC1	My organization facilitates open communication	4.0894	0.80186
KSC2	Work environment in my organization is co-operative	3.6652	0.86843
KSC3	The employees efforts towards innovation and productivity are encouraged in my organizations	3.7561	1.03631
KSC4	My organization values team performance more than that of individual's performances	3.3591	1.10310
KSC5	My organization encourages and rewards knowledge sharing among employees	3.8364	0.94807

Source: Primary Data

Results from the table-2 show that employees agree to the organizational factor – Knowledge Sharing Culture. Most of the respondents agree to open communication.

The point – Organization favouring team performance more than individual’s performance gains comparatively less support from the respondents. Opinions are also not much consistent for this point.

**Table -3: Mean and Standard Deviation for Team Leadership**

Sl No.	Statement	Mean	Std Dev
TL1	I share my ideas or suggestions freely with my manager or lead	3.5712	0.72423
TL2	My supervisor or lead coaches and supports individual team members	3.4697	0.72291
TL3	My supervisor or lead focuses on building, team’s technical or interpersonal skills	3.5333	1.00096
TL4	My lead or manager mentors and counsels the team members	3.3970	0.95894
TL5	All the team members can discuss in meetings	3.8152	0.89294

Source: Primary Data

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 2, Issue 12, March 2016**

Results from the table-3 show that employees agree to the organizational factor –Team Leadership. It is clear that team members can discuss freely in meetings. The points – Lead or manager mentoring or counseling team members, coaching team members gains comparatively less support from the respondents. Opinions are also not much consistent for team building.

**Table -4 : Mean and Standard Deviation for Knowledge Sharing**

Sl No.	Statement	Mean	Std Dev
KS1	I share the information with my team members/managers that may be helpful for the work of the team	4.0939	0.91371
KS2	I share with my colleagues /managers about the latest developments, tools and technologies	3.6227	1.13240
KS3	My team members share their expertise to help resolve the team problems	3.5091	1.25923
KS4	People lacking competence in their jobs are helped by others to require competence rather than being left unattended	3.3076	1.15463
KS5	Knowledge is shared at all functional levels	3.7924	1.03252

Source: Primary Data

From the table-4, it can be observed that employees are sharing their knowledge, but comparatively less in regard to less competent people, solving team problems and about the latest developments, tools and technologies. However, there is a variation in the opinions.

**H01: Organizational factors: Management Support, Knowledge Sharing Culture and Team Leadership do not influence knowledge sharing**

**Table -5 Regression**

Multiple R	0.91
R Square	0.83
Adjusted R Square	0.83
Standard Error	0.36
Observations	660.00

Source: Primary Data

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 2, Issue 12, March 2016**

From the above table it is evident that 83 percent of the total variance in the knowledge sharing is explained by the management support (MS), knowledge sharing culture (KSC) and team leadership (TL).

**Table -6 ANOVA**

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3.00	420.65	140.22	1076.16	0.00
Residual	656.00	85.47	0.13		
Total	659.00	506.12			

Source: Primary Data

The obtained f-value of 1076.16 at 5 percent level of significance in the ANOVA table shows that the above mentioned three constructs significantly influence knowledge sharing.

**Table-7 ANOVA**

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-1.24	0.09	-13.85	0.00
MS	0.58	0.05	12.18	0.00
KSC	0.52	0.05	11.47	0.00
TL	0.20	0.04	4.93	0.00

Source: Primary Data

Further, when constructs were taken separately the beta coefficients for management support (0.58), knowledge sharing culture (0.52) and team leadership (0.20) were found significant with t-value of 12.18, 11.47 and 4.93, respectively at 5 percent level of significance. Thus, it can be concluded that knowledge sharing is significantly influenced by organizational factors - Management Support, Knowledge Sharing Culture and Team Leadership

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 2, Issue 12, March 2016**

## **CONCLUSION**

The current research findings conclude that Organizational Factors; Management Support, Knowledge Sharing Culture and Team Leadership have significant influence on Knowledge Sharing in software project teams. To improve the extent of knowledge sharing organizational factors- Management Support, Knowledge Sharing Culture and Team Leadership cannot be ignored.

## **SUGGESTIONS**

### **Management Support for Knowledge Sharing**

- The study finds that there aren't enough rewards or recognition to employees for contributing valuable information. As these are important to satisfy an employee, these measures may be incorporated at policy level. If lots of people use somebody's knowledge then that person or group should be rewarded even more.

### **Developing Knowledge Sharing Culture**

- It has been found that most often the employees are under stress or targets because of which they don't have time to discuss or share the knowledge. Therefore, when people have job assignments which leave them isolated, they may be allowed for little slack time, place and time for casual talk so that they share their knowledge.

### **Developing positive leadership in teams**

- Team leaders should use powerful conversations that build trust, encourage forward thinking and create energy within the team. To make knowledge sharing happen, the team leaders should focus on getting all those knowledgeable people involved. They should mentor and counsel all the team members.

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 2, Issue 12, March 2016**

**REFERENCES**

1. K. D. Joshi et. al., (2004) “Knowledge Transfer Among Face-to-Face Information Systems Development Team Members: Examining the Role of Knowledge, Source, and Relational Context”, Proceedings of the 37th Hawaii International Conference on System Sciences.
2. Gee-Woo Bock et al (2005) “Behavioral intention formation in Knowledge Sharing: Examining the Roles of Extrinsic Motivators, social-psychological forces, and Organizational Climate” MIS Quarterly Vol. 29 No. 1, pp. 87-111/March 2005 pp 87-111
3. Srivastava et.al., (2006) “Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance”, Academy of Management Journal, 49(6), 1239-1251
4. Adel Ismail Al et al (2007) “Organizational culture and knowledge sharing: critical success factors” Journal of Knowledge Management, Vol. 11 No. 2 2007, pp. 22-42,
5. Radwan et al (2007) “A Model of Antecedents of Knowledge Sharing”, Electronic Journal of Knowledge Management, Volume 5, Issue 4, 2007 (419-426)
6. Renzl, B. (2008) “Trust in management and knowledge sharing: The mediating effects of fear and knowledge documentation”, Omega 36 (2008) 206 – 220 pp 206-220
7. Singh, A ., Soltani, E. (2010), “Knowledge management practices in Indian information technology Companies”, Total Quality Management, 21(2), 145–157.
8. Hadi Teimouri et al (2011) “Studying the effective organizational factors on knowledge sharing between employees of governmental organizations in Isfahan province, Iran”, Interdisciplinary Journal of Contemporary Research in Business, Vol 3, No. 5 pp 920-930
9. Feng-Chuan Liu et al (2012) “Team Innovation Climate and Knowledge Sharing among Healthcare Managers: Mediating Effects of Altruistic Intentions” Chang Gung Med J Vol. 35 No. 5 pp 408-418

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 2, Issue 12, March 2016**

10. S. Gurursamy and P. Balaji (2013) “Managing Global Software Projects through Knowledge Sharing - A Study with Reference to Co-located and Globally-Distributed Software Teams” Independent Business Review, Volume 6, Number 2, July 2013 pp 68-91
11. Sharon and Rory (2013) “Acquiring and sharing tacit knowledge in software development teams: An empirical study” S Information and Software Technology 55 (2013) 1614–1624
12. Raed Kanaan et al (2013) “ The Impact of Knowledge Sharing enablers on Knowledge Sharing Capability: An empirical study on Jordanian Telecommunication Firms” European Scientific Journal August 2013 edition vol.9, No.22 pp 237-258