



## Importance of Project-oriented Organizational Culture in Knowledge Management Processes

**Adnan Ali Alghail**

Faculty of Industrial Management Universiti Malaysia Pahang 26600 Pekan, Pahang, Malaysia

**Liu Yao**

Faculty of Industrial Management Universiti Malaysia Pahang 26600 Pekan, Pahang, Malaysia

**Cheng Jack Kie**

Faculty of Industrial Management Universiti Malaysia Pahang 26600 Pekan, Pahang, Malaysia

### ABSTRACT

As organizations are seeking for an acceptable knowledge management environment, they use knowledge to the greatest advantage in their ongoing work projects. In other words, Knowledge Management (KM) is vital to successfully undertake projects. Therefore, It is necessary to ensure that they are using sufficient knowledge management processes for this purpose in a supportive project-oriented organizational culture (POOC). Nowadays, the fulfilment and usage of KM processes are essential for modern organizations to evolve their culture habits and managerial routines, to build a competitive culture environment and to achieve a high standard project organizational culture. This paper aims to highlight the importance of project-oriented organizational culture toward using the knowledge management processes for gaining a successful project deliverables and achieving the organization goals. It provides the fundamental description of each process of the knowledge management. It explains each processes in regards to the project-oriented organizational culture, even identifying why the project organizational culture is considered an important principle for the KM processes success. Hopefully, the outcomes of this paper shall provide enriching findings to leaders and managers in the organization in taking consideration into their Project-oriented Organizational Culture for enhancing the knowledge management processes.

**KEYWORDS** : Knowledge Management (KM), Project Management (PM), Project-oriented Organizational Culture (POOC).

### I. INTRODUCTION

Knowledge Management (KM) as a discipline has been a focal point of discussion over the past decades. In recent years, the importance of KM has been widely recognized as the foundations of industrialized economies shifting from natural resources to intellectual assets, [27].

Due to the higher demand for knowledge management (KM) and its processes, practitioners and academics have narrated and written numbers of articles on its effectiveness to the organizations. In fact, KM is a critical practice in the organizational globalization movement that has transformed knowledge and information from insufficient practices to the recognized and well-managed processes. KM makes an excellent candidate for project management [37], where it has a significant role in improving the rate of project success through its four processes (knowledge creation, storage, transfer and application). Running the processes organizations must provide a flexible and stabilized organizational culture in order to carry out these processes. Thus, KM has potential effects on the PM in the organizations.

However, there is a significant gap in the existing literature to address the importance of the organizational culture to KM and its processes. Ling-hsing and Tung-Ching Lin, [11] stated that, few studies have attempted to investigate the KM intention of individuals from the organizational culture perspective. Hence, there is leak in pointing out the strength and importance of the organization culture to the KM processes. Thus, it was found as an evidence that organizational culture is a major barrier to success in the KM process DeTiene and Jackson, [4]; Kayworth and Leidner, [18]; Ajmal and Koskinen, [2] Cited by (Ling-hsing and Tung-Ching Lin, 2015). Furthermore, there is still limited evidence on the interaction effect that is created between culture and KM practices and its impact on firm performance, [25].

In other words, the existing conducted researches may partially covered the importance of POOC to the organization KM processes. This paper is intended to point out the importance of POOC to the organization knowledge management processes and how can the lead to it competitive. There are three sections in this paper starting with reviewing POOC, KM, followed by identifying the importance of POOC to KM processes.

### II. LITERATURE REVIEW

#### A. Organizational Culture:

The organizations' culture has a lot to do with the success rate of their projects in support of the KM processes. Organizations must be aware of all projects all throughout their organization, not just about one particular project. In general, the term culture means, "How we do things around here."

The culture was defined as a complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by the human as a member of society, [33]. So, Project-oriented Organizational Culture can be defined as is a systematic approach of shared assumptions, thoughts, values, and beliefs, which governs how employees behave in the organizations during the project life cycle. The organizational culture is very important in leveraging KM. It has been considered both as a facilitator and a hurdle/barrier for effective KM. Culture of an organization has a key influence on KM, more specifically, on the effectiveness of knowledge in an organization. In addition, for the knowledge culture is only specific for its own where it is defined as a type of organizational culture that influences the knowledge management processes. Rabbi, [9], stated that, it is the culture that determines which knowledge to be shared, with whom it could be shared and when it should be shared.

Organizational culture plays perhaps the biggest role in whether organization is successful in executing and delivering projects. Most of the time organizations have difficulty completing projects successfully within the scheduled period and with planned budget, project managers can not be blamed of this failure. They are only toiling within a culture that is not supportive of their efforts, as for the processes of knowledge management is not been used sufficiently in such culture. Managers, including the head of the organization, need to step up and evaluate the project culture importance to these processes. Until the culture changes and starts adopting these processes, project managers will consistently struggle to be successful.

Talking about the Project-oriented culture as an organizational culture, it is wise to narrate the different types of culture to know why the POOC is been covered in this paper. There are four types of organizational culture and they are listed as below:

Family Culture – This is has a strong emphasis on hierarchy and orientation to persons power oriented, headed by a leader who is regarded as a caring parent and management takes care of employees, and ensures that they are treated well and have continued employment, This system can energize and multiply energies of personnel, [14]. If the leader is ineffective, S/he will damage competitiveness and drain employee energy and loyalty.

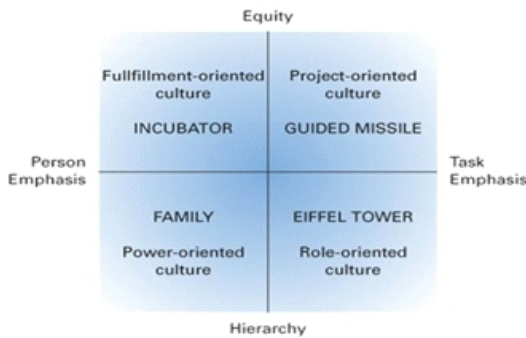


Figure :Types of Organizational Culture.

Source: Adapted from Fons Trompenaars, *Riding the Waves of Culture: Understanding Diversity in Global Business* (Burr Rigge, IL:Irwin, 1994), p.154.

Eiffel Tower – This is an assertion on hierarchy and orientation to task Jobs well defined; coordination from top Culture narrow at top; broad at base Relationships specific and status remains with job Few off-the-job relationships between manager and employee Formal hierarchy is impersonal and efficient, [14].

Guided Missile – A culture has a strong emphasis on equality in organization and in task culture oriented to work. Work undertaken by teams or project groups. All team members equal treat each other with respect egalitarian and task-driven organizational culture, [14]. Almost of the organization focus on using this type of culture as it helps to create and share the knowledge without any selfishness among its employees. From figure 1, POOC is categorized under this type of culture. According to Sznajder, [28], Project oriented organizational culture should evolve to manage knowledge effectively and to better manage relationship with environment.

Incubator Culture – This is an assertion equality and personal orientation, Organization as incubator for self-expression and self-fulfillment, [14]. Little formal structure participants confirm, criticize, develop, find resources for, or help complete development of innovative product.

**B. Knowledge Management (KM)**

Through KM, organizations seek to acquire and create potentially useful knowledge and to make it available to those who can use it at a time and place that is appropriate for them to achieve maximum effective usage in order to positively influence organizational performance, [35]. King, [35] has defined knowledge as a “justified personal belief.” According to Omotayo, [27], knowledge is the insights, understandings, and practical know-how that people possess; there are many taxonomies that specify various kinds of knowledge. Magnier-Watanabe & Senoo, [24], has defined Knowledge Management as the process for acquiring, storing, diffusing and implementing both tacit and explicit knowledge inside and outside the organization’s boundaries with the purpose of achieving corporate objectives in the most efficient manner. While Mahdi and Liu [26], [21]; [22] defined KM as a systematic process of managing knowledge mainly from searching, creating, organizing, sharing, facilitating and evaluating aspects by utilizing technologies to help in the decision making of sustaining competitive advantage. Knowledge management can be defined as a process that transforms individual knowledge into organizational knowledge, [30]. Over the centuries, many attempts have been

made to classify knowledge, and different fields have focused on different dimensions. Nowadays, Organizations strive their power managing the knowledge involved in the project management activities, and there are two major types of knowledge.

Tacit knowledge: It tends to reside within the heads of people, who have the knowledge and it is difficult to articulate and difficult to put into words, text, or drawings, [17]. It is being the most valuable source of knowledge, and the most likely to lead to breakthroughs in the organization. It includes cultural beliefs, values, attitudes, mental models as well as skills, capabilities and expertise. Goffin, [15], has recommended that, an appropriate utilization of tacit knowledge is the key for project success.

Explicit knowledge: It represents content that has been captured in some tangible form such as words, audio recordings, or images, [27]. This is the type of knowledge most easily handled by knowledge management system as it formed in databases, memos, notes, documents, it usually contained within tangible or concrete media. According to Love, [23], KM has a strong influence on the efficiency of PM, in which poor utilization of KM practices not only negatively affects project success, but also causes some inefficiency such as overrun cost. Robert, [31], stated that, KM has been presented as a practice that makes sense for improving PM. Therefore, managing of knowledge, whether it is tacit or explicit , it is a necessity and an important element for a project success in the organizations, especially in today’s changing environment, [29]. Therefore, KM is viewed as the way to enhance productivity and increase profitability if knowledge assets are used effectively in each organization, [27].

**Knowledge Management Processes:**

From the definitions of KM mentioned earlier, it talks on acquiring, storing, diffusing and implementing of the organizational knowledge and all of these are called knowledge management processes. Gold, [13], has developed a model of KM based on the capabilities perspective. They refer to four KM processes, acquisition, conversion, application, and protection of knowledge throughout the organization. These processes enable the organization to capture, reconcile, and transfer knowledge in an efficient and protected manner, [33]. In order to manipulate these processes, they refer to different key infrastructure capabilities and one of these main infrastructures is the culture. Together, the perspectives of infrastructure and processes provide a useful theoretical foundation for defining important aspects of knowledge effectiveness in organizations, [1]. Thus, these four processes namely were choosing to be discussed in this paper, as they are more likely to be effected by the organizational culture.

Acquisition Process - Acquisition process is a process that involves in obtaining and creating knowledge. However, prior to acquisition, an organization must know the knowledge it has within the organization in some form or other, and the knowledge gaps. Along with knowing the current position, an organization should make efforts to acquire knowledge and create new knowledge by using processes and tools, [33]. The interaction between the individuals will promote learning and make collaboration between individuals, which will lead to create new knowledge, [10]. However, the ability to acquire knowledge is partly based on an organization’s absorptive capacity.

Conversion Process - Conversion process in KM is an oriented process towards making existing knowledge available at a central location, easily accessible by everyone in the organization. Some of the processes that enable knowledge conversion are organization’s ability to organize, integrate, combine, structure, coordinate and store knowledge. It is important and recommended for organizations to store and convert knowledge in a user-friendly, easily accessible form. Explicit knowledge can be stored as best practices or lessons learned databases. For tacit knowledge, the conversion process makes available corporate portals for accessing the expertise locator system, [32].

Application Process - Knowledge application process refers to the process of sharing the knowledge among the employees in an organization and it can be considered as the core task of knowledge management, [9]. Knowledge is effectively applied during the developmental processes of an organization through rules and directives, routines and self-organized teams, [41]. Using text-mining techniques to mine relevant knowledge is characteristic of knowledge application of unstructured knowledge. Using intelligent agents to actively build user profiles and push appropriate lessons learned and material to user is another way of knowledge application. Chat rooms, bulletin boards, online communications, communities of practices, etc., on organization intranet also facilitate knowledge sharing, [33]. However, for tacit knowledge sharing, the knowledge conversion process makes available corporate portals for accessing the expertise.

Protection Process - knowledge protection is a process or action towards protecting the knowledge from any attack or misuse as the organizational knowledge is vulnerable. Ghosh & Scott, [5], stated that knowledge must be protected from inappropriate use inside the organization by using logins and authentication to access systems, also protecting knowledge from inappropriate use outside the organization when sensitive information is requested from other party in the organization, [33]. Restrict access to employees to maintain knowledge confidentiality, protect employees' identities to sustain sharing of embedded knowledge and to establish the importance of protecting knowledge.

### III. DISCUSSION

#### Importance of Project-oriented Organizational Culture in KM Processes

A major facilitator of knowledge management according to the literature is an appropriate organizational culture, especially one that fosters the sharing of the knowledge on widespread, [34]. Generally, organizational culture is categorized into four types. Equity Culture ensures every employee in the organization has the same equity as other employee does. They can express what they like to do and share their experience freely without any restrictions. For the Person Emphasis culture, it is an individual behavior culture. Each employee has his/her own way of conduct and routine attitude that can be isolated for being socialized without team members in the organization. Another culture type is the Hierarchy, which involves doing duties and tasks in a culture that work from the bottom to the top of the organization each employee reports to the his/her direct supervisor or manager without any concern on sharing the lesson learn with other coworkers. The last culture is the task emphasis, which deals with running and executing the organization tasks. Each employee is assigned to accomplish his/her tasks and that is all they can do. Finishing the tasks without even sharing their experience and difficulties in order to have and gain their knowledge on that particular task. this study categorize the Project-oriented Organizational Culture as equity and task emphasis culture.

The Project-oriented Organizational Culture (POOC) decides the way employees interact at their workplace during executing the PM phases. An equity culture encourages the employees to stay motivated and loyal towards the management. It brings all staff members on a common platform. The employees must be treated equally during obtaining the knowledge and no one should feel neglected or left out at the workplace. It is essential for the employees to adjust well in the organization culture for them to deliver their level best in participating the KM processes. No two organizations can have the same exact Project-oriented Organizational Culture. It is the project culture of an organization which makes it distinct from other competitive organizations. The project culture goes a long way in creating the brand image of the project knowledge in the organization. The project culture itself gives an identity to the organization. In other words, an organization is known by its own Project culture

The importance of a project-oriented organizational culture as an

emphasis culture is an enabler for the transfer and creation of knowledge, [6]. In order to make knowledge management initiatives work in practice, the employees within the organizations must be willing to share their knowledge with others and be freely open to share it without any request. Leaders and managers must understand the culture both on a project organizational and on community level. While culture often exists on project organizational level, each community may have its own norms, differences, perspectives, and collective understandings, [2]. Their willingness to share and to seek knowledge will be influenced by these collective views.

One major influence to a project culture's knowledge sharing willingness is the issue of reciprocity [10] According to Frost, [3] this refers to the individual's need to perceive a current or future return on the knowledge he chooses to share. This could be in the form of direct compensation of some kind; it could be something intangible like enhancing the individual's reputation during the project on going activities. However, it can also be the knowledge that the favor will be returned the next time he requires assistance.

Moreover, the internal competition is yet another aspect of project-oriented organizational culture that may interfere with the knowledge management processes and especially the knowledge sharing processes, [2]. The more the project culture is oriented, the more the organizations' employees strive their best level to achieve the four processes of KM. Thus, Organizations need to learn how to manage its project culture for getting better KM processes. A culture that support employees' creativity and intelligence in all the project phases. Organizations project culture facilitated manipulating their knowledge that they are accumulated and acquired from projects more effectively and using of best practices from lesson learned from these projects. As a part of the project culture importance, Levin, [20], stated that, KM can enhance overall PM success in terms of fulfilling the client, the performing organization, and team goals. So, it is required to have a culture that ensures smooth KM process in the organization in order to gain an overall success in PM.

### IV. CONCLUSION

This paper has presented some of the theoretical findings on KM, POOC and highlighted the importance of POOC towards KM processes. The advantage of POOC to the organizations are numerous but are difficult to be managed in typical ways, especially within the very large and big hierarchy organizations, which run multiple projects in a same time. From the paper, it be concluded that Project-oriented Organizational Culture has a significant role and major influence on the project management and knowledge management processes success. The higher degree the project culture oriented, the more useful and sufficient KM processes organization gain. The PM reaches to its maturity and targeted condition once the organization with a full support from POOC use these processes freely and easily. The environment and the enthusiasm of that organization encourages and determines the use and importance of this demand on these processes. As knowledge comes from different phases and sources during the project management activities, it is very important to have an oriented project culture that supports and ensures the knowledge processes flow inside the organization, type of culture that create, convert, apply and protect the two types of knowledge (Tacit and Explicit). Once the project culture is oriented, information can be shared throughout each project and program as well as with the entire organization. Finally, for gaining a successful knowledge management processes, the organizations must maintain and evaluate their project culture regularly and come out with some recommendations, which help for improving its culture continuously.

### References

- [1] Abdel Nasser H. Zaid, GawaherSoliman Hussein and Mohamed M. Hassan, (2012)."The Role of Knowledge Management in Enhancing Organizational Performance".J.J.Information Engineering and Electronic Business, 2012, 5, 27-35.
- [2] Ajmal, M.M. and Koskinen, K.U. (2008), "Knowledge transfer in project-based organizations: an organizational culture perspective", Project Management Journal, Vol. 39 No. 1, pp. 7-15.

- [3] Alan Frost, 2010. The Significance of Organizational Culture. "http://www.knowledge-management-tools.net/organizational-culture.html".
- [4] Alavi M, Tiwana A. 2003. Knowledge Management: The Information Technology Dimension, in *Organizational Learning and Knowledge Management*. Easterby-Smith M, Lyles MA (eds). Blackwell Publishing: London; 104–121.
- [5] Biswadi Ghosh and Judy E. Scott (2007), "Effective Knowledge Management Systems for a Clinical Nursing Setting". *Information Systems Management*, 24:1, 73-84.
- [6] Bosua, R. and Venkitachalam, K. (2013). Aligning strategies and processes in knowledge management: a framework. *Journal of Knowledge Management*, 17(3), 331-346, doi: 10.1108/JKM-10-2012-0323
- [7] Bukowitz, W. R., & Williams, R. L. (1999). *The Knowledge Management field book. Knowledge management process framework*: 9-12.
- [8] Chong Hai Sin, Gerald Guan Gan Goh and Uchenna Cyril Eze, (2009). "Knowledge Management Enablers Toward Successful New Product Development: A Case Study In A Semiconductor Manufacturing Firm". *Journal of Knowledge Management Practice*, Vol. 10, No. 4.
- [9] Christina Ling-hsing Chang, Tung-Ching Lin, (2015) "The role of organizational culture in the knowledge management process", *Journal of Knowledge Management*, Vol. 19 Issue: 3, pp.433-455, doi: 10.1108/JKM-08-2014-0353.
- [10] Davenport, Thomas H.; Prusak, Laurence (2000). *Working Knowledge: How Organizations Manage What they Know*. Harvard Business School Press. p. 240. ISBN 1-57851-301-4.
- [11] DeTiene, K.B. and Jackson, L.A. (2001), "Knowledge management: understanding theory and developing strategy", *Competitiveness Review*, Vol. 11 No. 1, pp. 1-11.
- [12] Faria Rabbi, Dr.GholamRezaZandi and Muhammad Farrukh, (2015). "The Impact of Knowledge Management Infrastructure and Process on University Performance". *SEGI Review* ISSN: 1985.5672, Vol.9.
- [13] Gareth R.T. White Svetlana Cicmil, (2016). "Knowledge acquisition through process mapping", *International Journal of Productivity and Performance Management*, Vol. 65 Iss 3 pp.302 – 323.
- [14] Georgia Lynch. (2009). *Organizational Cultures and Diversity*. The McGraw-Hill Companies. Retrieved from <http://slideplayer.com/slide/8598679/>
- [15] Goffin, K., U. Koners, D. Baxter, and C. Van der Hoven, (2010). "Managing Lessons Learned and Tacit Knowledge in New Product Development". *Research-Technology Management* 53(4):39-51.
- [16] Gold, A.H., Malhotra, A. & Segars, A.H. 2001, "Knowledge Management: An Organizational Capabilities Perspective", *Journal of Management Information Systems*, vol. 18, no. 1, pp. 185-214.
- [17] Hedesstrom, T. and Whitley, E. A. (2000). "What is Meant by Tacit Knowledge? Towards a Better Understanding of the Shape of Actions". In *Proceedings of the 8th European Conference on Information Systems – ECIS 2000*.
- [18] Kayworth, T. and Leidner, D. (2003), "Organizational culture as a knowledge resource", in Holsapple, C.W. (Ed.), *Handbook on Knowledge Management*, Volume 1: Knowledge Matters, Springer-Verlag, Heidelberg, pp. 235-252.
- [19] Kliem L. Ralph, (1999). "The role of project management in knowledge management, in Information management, strategy, systems and technology". Auerbach Publications 1999 CRC Press Aug 1999.
- [20] Levin, Ginger. (2007). "Moving forward with project management: a knowledge management methodology". PMI publication, Project Management Institute.
- [21] Liu Yao, Ahmad Othman, Ahmed N. Abdalla and Wu Jing, (2011). "A Novel Sensemaking Model of Effective Knowledge Management within SMEs". *African Journal of Business Management*, 5(11):4423-4431.
- [22] Liu Yao, Ahmed N. Abdalla. (2013). "Evaluating the Managerial Behavior of Managing Knowledge in Chinese SMEs". *Information Technology and Management*, 14(2): 159-165 DOI: 10.1007/s10799-013-0157-x
- [23] Love, P. E. D., Z. Irani, and D. J. Edwards, (2003). "Learning to Reduce Rework in Projects: Analysis of Firm's Organisational Learning and Quality Practices". *Project Management Journal* 34(3).
- [24] Magnier-Watanabe, R. m., & Senoo, D. (2008). "Organization characteristics as prescriptive factors of knowledge management initiatives". *Journal of Knowledge Management*, 12(1), 21-36.
- [25] Mario J. Donate and Fatima Guadamillas. (2010). "The Effect of Organizational Culture on Knowledge Management Practices and Innovation". *Knowledge and Process Management*, Volume 17 Number 2 pp 82–94.
- [26] Omar R. Mahdi, Liu Yao and Mahmoud Khalid Almsafir (2011). "The role of knowledge and knowledge management in sustaining competitive advantage within organizations: a review". *African Journal of Business Management*, 5(23): 9912-9931.
- [27] Omotayo, Funmilola Olubunmi, (2015). "Knowledge Management as an important tool in Organisational Management: A Review of Literature". *Library Philosophy and Practice (e-journal)*. Paper 1238.
- [28] Patrycja Sznajder, (2011). "Organizational culture as a source of competitive advantage". 11th Global Conference on Business & Economics, Manchester Metropolitan University, UK ISBN: 978-0-9830452-1-2
- [29] Polyaninova, T. (2011). "Knowledge management in a project environment: organizational CT and project influences". *Dublin Institute of technology, Vine*, Vol. 41, Iss. 3.
- [30] Rasula, J., Vuksic, V. B. and Stemberger, M. I. (2012). "The Impact of Knowledge Management on Organizational Performance". *Economic and Business Review*, 14(2), 147-168.
- [31] Robert, F., Rachele, F. and Teri, L. (2007). "Effective project management: a knowledge management and organizational citizenship behavior approach", *Journal of Business and Economics Research*, Vol. 5 No. 9, pp. 53-63.
- [32] Samina Nawab, Tahira Nazir, Muhammad Mohsin Zahid, and Syed Muhammad Fawad, (2015). "Knowledge Management, Innovation and Organizational Performance". *International Journal of Knowledge Engineering*, Vol. 1, No. 1.
- [33] Sangeeta Shah Bharadwaj, Sumedha Chauhan, and Aparna Raman, (2015). "Impact of Knowledge Management Capabilities on Knowledge Management Effectiveness in Indian Organizations". SAGE Publications. VOL 40.
- [34] Singh Sandhawalia, B. and Dalcher, D., (2011). "Developing knowledge management capabilities: a structured approach". *Journal of Knowledge Management*, 15(2), pp.313-328.
- [35] Standing, C., & Benson, S. (2001). *Organizational culture and knowledge management*. Paper presented in the Pacific Asia Conference on Information Systems, Seoul, Korea.
- [36] William R. King (2009). "Knowledge Management and Organizational Learning". *Annals of Information Systems* 4, DOI 10.1007/978-1-4419-0011-1\_1, Springer Science Business Media, LLC.
- [37] Paul C. Tinnirello, (2001). *New Directions in Project Management*, Edited by Paul C. Tinnirello. Auerbach Publications 2001. Pages xi–xiv. eBook ISBN: 978-1-4200-0016-0.