



KNOWLEDGE-CENTRIC CULTURE & LEAN SUCCESS

by Cynthia J. Young

The essence of lean management lies in maximizing value while minimizing waste, fundamentally transforming the way organizations operate and deliver. Central to achieving a lean enterprise is the efficient incorporating the management of knowledge—creating, sharing, utilizing, and maintaining it. Knowledge management (KM) practices play a pivotal role in this context, providing the structure and tools to capture, distribute, and effectively use knowledge through sharing and transfer of explicit and tacit knowledge and converting the knowledge as part of the knowledge flow.

Explicit knowledge is knowledge that is written as processes, procedures, emails, or presentations as examples. It's basically any knowledge that is documented, but it must be findable for others to use to be effective. If someone can't find or access stored knowledge, or isn't aware that it exists, it's not useful at all.

Tacit knowledge is knowledge based on experience. It's gained from others through stories on the work floor, during downtimes at desks, by the coffee pot or watercooler, or as is in the Navy, it's when Sailors step out to the smoke break areas underway.

Knowledge management in a lean context is about ensuring the right information reaches the right person at the right time. It's about creating a culture and system that promotes an ongoing exchange of information to continuously improve processes and eliminate waste. Like other organizations, lean organizations rely on KM to make informed decisions quickly, adapt to changes, and innovate, keeping customer value at the forefront.

This article digs into how organizations can leverage various knowledge management practices to bolster their lean initiatives, focusing on knowledge capture, sharing, transfer, storage, findability, and accessibility of knowledge. Organizational culture of togetherness, openness, accessibility, improvement, and achievement¹ must incorporate management and flow of knowledge. The practices are reflected through explicit and tacit knowledge conversion while also promoting the knowledge flow throughout the organization.

Knowledge Capture and Documentation

Knowledge capture is "a process or procedure for gathering explicit and tacit knowledge."² There are many options to an organization, lean or otherwise, such as the systematic approach, use of visual management techniques and standardization of work documentation. It's important to remember that not everyone learns using the same method so there are various methods for capturing knowledge as well as the documentation.

Using a systematic approach in an organization allows easy capture of both tacit knowledge (skills, experiences, insights) and explicit knowledge (processes, standards, manuals) from their processes and people. Visual management techniques such as value stream mapping and visual boards help in capturing the current state of processes and ongoing improvements. Pictures are sometimes more effective for people learning the overarching techniques. Standardized work processes help documenting best practices and lessons learned to ensure that improvements are captured and shared. All of these processes are valid for knowledge capture and documentation whether using one or a grouping, but the organization needs to ensure that their personnel know how to use these processes.

Knowledge Sharing and Collaboration

Knowledge sharing is "a conversation between two or more people or exchange of knowledge allowing for questions and answers."³ Toyota incorporates knowledge sharing as part of their culture through supplier interorganizational and network learning to support competitive advantages.⁴ Knowledge sharing in an organization with a collaborative culture encourages teams to avoid knowledge hoarding, which can damage collaboration, customer support, and overall team cohesion. This can be supported by the encouragement of open communication channels and communities of practice as well as mentorship and training.

Encouraging open communication and collaboration is a practice that should be done purposefully daily . Communicating through regular team meetings, shared spaces, and cross-functional teams is a method of building communication between team members allowing and encouraging team members to open about what they need to do their jobs and feel valued. One way to help open communication is to provide a standard listing of reporting that each team member provides such as:

- What projects are you supporting?
- What projects do you need help with?
- What do you think others need to know about?
- When are you planning to take personal time off (PTO)?
- If you are taking PTO, what coverage do you need while you are out of the office?

These questions give your team members a way to share with their teammates who may not be in their immediate chain of command or at the same location. It also helps them to get to know each other and work together more effectively.

Some organizations have communities of practice (COPs). COPs either group people with similar interests or groups personnel in similar areas of work to support knowledge sharing and transfer in a tighter group. A COP can support capture, sharing, or transfer of knowledge as the COPs work together and build trust. Because a COP can build the

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knowledge base of the subject matter experts in these groups, COPs also provide opportunities for an organization to foster growth in specific areas relevant to lean management.

Mentorship and training programs allow the workforce to gain skills and knowledge about lean principles and practices. With these, this builds a forceful backup mentality in the organization where knowledge hoarding is highly discouraged. Additionally, the knowledge flows throughout the organization through those who have managed knowledge specific to the organization's projects and associated customers providing stability throughout the workforce.

Knowledge Transfer for Continuous Improvement

Knowledge transfer is "a distribution of knowledge from a resource."⁵ One of the areas where knowledge transfer is necessary for continuous improvement is in the onboarding, retention, and departures of employees. By transferring knowledge, this allows employees to feel valued while supporting continuous improvement efforts through onboarding training, lessons learned, and succession planning.

At one end of the hiring spectrum is when an organization hires new employees, onboarding training new employees can quickly bring them up to speed on lean practices. Incorporating some training about how the organization manages knowledge can help the new employees adapt to the culture of KM. Transferring knowledge can be done through required reading, PowerPoint presentations, and/or computer-based training.

While retention efforts are vast, one area requiring consistent use is the areas of lessons learned because it is done by the current workforce and once again, is an opportunity to have employees feel valued. Conducting regular retrospectives or "lessons learned" sessions to reflect on what worked well and what didn't, to share and transfer critical knowledge and insights to all relevant stakeholders. As a practice, a solid lessons learned program can encourage a culture of knowledge capture, sharing, and transferring preventing rework and knowledge loss in the organization.

At the other end is succession planning. Organizations must prepare for future retirements and planned or unplanned departures and promotions. By having a plan in place for critical knowledge to be transferred when employees change roles or leave, ensure it is captured, documented, shared, and transferred throughout the length of the employees' tenures. It also provides organizations with the ability to write more accurate position descriptions while also setting a culture of KM as part the expectations for new hire.

Knowledge Storage, Findability, and Accessibility

Knowledge storage is "how or where knowledge is held for future use or for retention"⁶. Knowledge also must be findable otherwise there's no use in storing it. Findability of knowledge refers to the "methods and ease of locating knowledge."⁷. Once someone finds it, they need to be able to access it meaning whatever firewalls, passwords, or permissions must be accessible to the person needing the use the knowledge or to at least determine if it's usable to the person looking for the knowledge.

In centralized knowledge repositories, complementing a centralized knowledge base where documents, best practices, and lessons learned are stored and easily accessible, the workforce needs to be able to locate the knowledge and information.

Another method of finding the knowledge is through tagging with a logical structure and taxonomy, or classification, so employees can easily find what they need. The final aspect of storage, findability, and accessibility is the use of a user-friendly platform or knowledge management systems that facilitate quick access to information.

Cultivating a Knowledge-Centric Lean Culture

When cultivating a knowledge-centric Lean culture, leaders and managers must actively support and model knowledge sharing behaviors, linking KM to the organization's lean vision. Building up a knowledge management culture can be done through processes already in place such as recognition and rewarding knowledge sharing contributions and behaviors, having purposeful communication about what is being done within the organization, or through using a continuous learning environment where employees are encouraged to seek out and share knowledge.

Knowledge Flow in a Lean Organization

Knowledge flows within a knowledge-centric culture is built into a lean organization's daily work – standardized and practiced by all levels in the organization. Knowledge capture, sharing, transfer, capture, storage, findability, and accessibility are all parts of the organizational knowledge flow. Each of these components plays a critical role in supporting lean management by ensuring that knowledge

flows freely and efficiently throughout an organization through tacit and explicit knowledge-conversion practices.

Modes of knowledge conversion are⁸:

Socialization (tacit-to-tacit): personal interaction such as on-the-job training

Externalization (tacit-to-explicit): converting experiential knowledge to written knowledge such as processes – Consider teaching someone how to cook and the learner writing everything out as a recipe for future use.

Combination (explicit-to-explicit): putting to use a process and then refining it and implementing more defined written directions or guidance.

Internalization (explicit-to-tacit): using a written process and then adding your spin to it based on experience and personal lessons learned to improve the process.

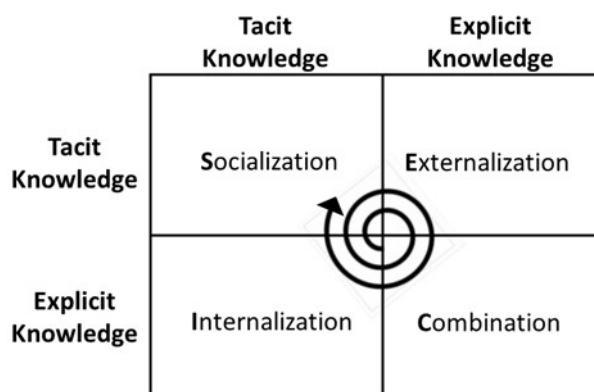


Figure 1. Modes of knowledge creation. Adapted from "A dynamic theory of organizational knowledge creation" by Nonaka, I. 1994. *Organization Science*, 5, p. 19. 1994 by RightsLink. Adapted with permission.

Incorporating knowledge flow in an organization does not just occur when leadership converts knowledge for use in the organization but must be part of every employee's work⁹. To know when knowledge flow is part of the culture of the organization the knowledge flow is just part of daily work. Knowledge flow becomes part of an organization's culture where personnel do not feel pressured into using it and comprehend the benefits of managing the knowledge for the success of the organization, the business, and the personnel.

Conclusion

Incorporating knowledge management practices into lean organizations is not just an enhancement; it's a necessity for those aiming for continual improvement and operational excellence. By effectively capturing, sharing, transferring, and accessing knowledge, lean organizations can streamline processes, reduce waste, and maintain a competitive edge. This synergy between KM and lean practices ensures that the organization is always learning, adapting, and moving forward, with every employee playing a pivotal role in its journey towards efficiency and innovation.

As organizations further explore the implementation of these practices, remember that the success of integrating knowledge management into lean initiatives depends on the commitment from all levels of the organization, from top leadership to front-line employees. By fostering a culture that values

knowledge as a key asset, lean organizations can thrive and sustain their competitive advantage in an ever-changing business landscape while continuing to convert through the various modes of knowledge. ■

References

- 1.Kailaichelvi, S.V.U., Antony, A., & Vimalanathan, A.N. (2017). A study in organizational culture. *International Journal of Research – Granthaalayah*, 5(8), 91-95. doi: 10.5281/zenodo.894489
- 2.Young, C.J. (2023). The Knowledge Management Memory Jogger. GOAL/QPC.
- 3.Young, C.J. (2023). The Knowledge Management Memory Jogger. GOAL/QPC.
- 4.Dyer, J.H. & Nobeoka, K. (2000). Creating and managing a high-performance knowledge-sharing network: The Toyota case. *Strategic Management Journal*, 21(3), 345-367. doi:10.1002/(SICI)1097-0266(200003)21:3<345::AID-SMJ96>3.0.CO;2
- 5.Young, C.J. (2023). The Knowledge Management Memory Jogger. GOAL/QPC.
- 6.Ibid.
- 7.Ibid.
- 8.Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5, 14-37. Retrieved from <http://orgsci.journalinforms.org>.
- 9.Dombrowski, U., Mielke, T., & Engel, C. (2012). Knowledge management in Lean Production Systems. *Procedia CIRP* 3, 45th CIRP Conference on Manufacturing Systems 2012, 436-441.