

CAHRS Working Group—Knowledge Management

November 15, 2013 — Seattle, WA

Findings

The findings are summarized into three major topic areas:

- Building a business case for knowledge management and identifying the strategic intent and key outcomes of knowledge management
- Identifying the roles of structure, information technology, leadership, and culture in facilitating knowledge management
- Measuring the impact of knowledge management activities

While most of our time and attention in this first working group meeting was devoted to scoping out the key areas and drivers of knowledge management, future working groups will be dedicated to addressing each of the above topics in greater depth.

On November 15th, 2013, CAHRS Professors Brad Bell and Chris Collins from Cornell University facilitated an initial Knowledge Management and Organizational Learning Working Group (WG), hosted by Imo Baseler of Amazon.com at its Seattle, WA location. The WG was attended by 13 individuals from 10 CAHRS partner companies. These included Amazon.com, Chevron, Cornell University, GE Aviation, Ingersoll Rand, MetLife, Microsoft, Procter & Gamble, Shell, and Terex.

Business Case—Strategic Intent of Knowledge Management

The group spent time at the beginning of the meeting talking about the strategic intent of their knowledge management efforts. Participants noted that it is important to clarify the strategic intent because it not only helps to build a stronger business case but it also defines desired outcomes and relevant metrics. Further, different strategic foci are likely to require different types of interventions and programs. Although all participants agreed on the importance of clarifying the strategic intent of these efforts, the underlying issues shaping the strategic direction varied across companies and industries. For example, more mature firms have concerns about an aging workforce and are focused on addressing impending gaps in their talent pipeline. Other firms are more focused on accelerating capability building to support rapid growth. Overall, this was a robust discussion and pointed to a variety of reasons for pursuing knowledge management. In the end, the strategic goals/outcomes seemed to fall into two main categories.

1. **Driving Organizational Performance.** There was a general consensus among the participants that one key outcome of knowledge management is to improve organizational performance by spreading best practices and spurring innovation. Each of the participants noted, in one way or another, the importance of transferring knowledge situated in individuals or locations to other parts of the organization in order to diffuse learning, connect novel ideas, and drive innovation. As companies grow and employees become increasingly distributed across divisions, geographic locations, and product lines, it becomes essential to devise strategies that facilitate the transfer of isolated knowledge to the company as whole. As one participant noted, “if we only knew what we knew, our company would be able to get products to market faster and improve the consistency of execution across the whole company.”

In describing knowledge transfer around this strategic goal, participants noted multiple challenges:

- **How to facilitate sharing knowledge across lines of business.** Often different business units and product/service lines develop their own sub-cultures, technologies, processes, etc. (especially true when built through acquisitions), creating the need for both a shared language and an appreciation for what people in the other lines of business might offer.
- **How to facilitate knowledge sharing across functions.** As with business lines, this requires creating a shared language and an appreciation for knowledge exchange. A challenge is determining whether this is best accomplished by trying to get all employees involved or by focusing on a small subset that serve as the bridges for exchange.
- **How to facilitate knowledge transfer both within and across geographical centers/locations.** One challenge is to identify common markets where knowledge and learning should naturally flow. The second is to think about how

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to transfer knowledge from emerging markets to developed markets and vice versa.

- **Knowledge transfer is often dependent on personal relationships and trust.** Therefore, it is important to understand how to engineer opportunities for employees to interact with one another to build relationships and develop new contacts.
- **To what extent can companies embed knowledge exchange in existing activities and processes rather than designing new tools?** For example, peer feedback and reviews can be built into the stage gates of projects to potentially facilitate expertise transfer and insights.

2. Accelerating Development of Individual Capabilities. A second key outcome of knowledge management is accelerating the development of capabilities for new employees. A number of the participants noted that they were focused on knowledge capturing and knowledge sharing activities to more rapidly ramp up new employees (either new college grads or experienced new hires) so that they are able to reach proficiency faster than in the past. Key issues underlying this focus on accelerated capability building include supporting new growth opportunities, developing replacements for employees who are approaching retirement, and meeting the capability requirements of new business models.

As with the prior theme, participants identified a wide range of challenges in this area of strategic focus:

- Identifying the key knowledge bases and information that is tied up in the employees that are approaching retirement age and determining how best to transfer this knowledge to reduce risk.
- For companies working in new markets or pursuing new business models, it is important to work backward from the key technologies, innovations, and outcomes that will create competitive advantage to identify the critical talent and knowledge that will drive this competitive advantage. The company can then work to determine if this knowledge exists somewhere in the firm and transfer the knowledge to quickly build broad-based capabilities.
- Identifying knowledge or subject matter experts and developing a means to explicitly codify their knowledge and expertise so that it can be shared with other employees.
- Evaluating the skills and knowledge gaps of employees who are new to the workforce, new to the organization, or new to a role/level and identifying the best sources of knowledge and expertise to quickly close the gaps.
- Equipping mentors with the skills needed to be able to transfer knowledge and expertise.
- Determining how much attention should be devoted to people in specific roles/positions and how much should be focused on broader capabilities. In terms of risk management, it is important to identify critical talent/roles and have contingency plans in place. However, roles have a relatively short shelf life in today's dynamic environment, which suggests a greater focus needs to be put on building capabilities.
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Enhancing Knowledge Management

The group had a very rich discussion about potential practices and activities that enhance knowledge sharing. Although a variety of ideas were generated, most fell into the four main categories of (1) structure and HR practice solutions; (2) information technology systems and solutions; (3) leadership behaviors and actions; and (4) culture and culture shaping practices. Because of the specific nature of some of the thinking around structure and HR practices and information technology, we further split these into general and global categories.

1. ***General Structure and HR Process and Practices.*** Much of the conversation revolved around strategies and practices for how to use structure, organizational design, and HR practices and processes for enhancing knowledge management.
 - ***Succession and HR Planning Processes:*** Multiple participants noted that it is important to embed knowledge management into the succession management and HR planning processes. First, both processes should have more of a future orientation to identify the underlying knowledge and capabilities that will be required to drive performance in the future as well as today. Companies can then use these processes to evaluate employees and develop an individual development plan to meet moving – rather than static – target of capabilities.
 - ***Employee Selection:*** It is important to place greater emphasis on learning agility during selection to identify those who have the ability and willingness to engage with others, absorb learning, and seek out learning.
 - ***Collaboration maps:*** One participant noted that knowledge management is enhanced by mapping the structure of the knowledge network in the organization, including identifying who needs to be involved in knowledge exchanges and who has key pieces of knowledge or expertise that should be involved in moving an activity or business forward. Individuals should also identify who is in their collaboration network and evaluate the desired and actual strength of those connections.
 - ***Stretch assignments/promotions and supporting infrastructure and promotions:*** One strategy to accelerate capability is to lean forward on promotions – move people into roles quicker or potentially before they are fully equipped. Increasing promotion velocity entails some risk, but it can also spur rapid development, particularly when paired with supplemental support to fill in gaps in key skills and capabilities. For example, individuals can be assigned fellows or coaches that share knowledge, experience, and advice on how to overcome key obstacles.

2. ***Global Structure and HR Practices.***
 - ***Structure of Global Business Units:*** Participants noted that it is important to organize global businesses around common markets where knowledge and learning should naturally flow – creating knowledge and learning circles for exchange.
 - ***Regional Technology Centers or Centers of Expertise:*** Regional centers can be created to focus on specific problems or technologies.
 - ***Short- and Longer-term Global Assignments:*** Although moving individual talent or entire teams across different locations or between technical and business units can facilitate knowledge transfer, the problem with this approach is that it is not scaleable. In addition, knowledge that is relevant in one location is not always valuable in other locations. Nonetheless, transfer of tacit knowledge is often based on established relationships best developed through actual in-person connections. The movement of employees through assignments creates the opportunities to develop relationships that are more visceral which facilitate sharing and exchange through distributed technologies.
 - ***Nexus teams:*** Another strategy is to develop virtual project assignments that cut across regions to tackle key business challenges and build the relationships that spark new ideas and information sharing.
 - ***Localization of leadership and decision making:*** Similar to the idea above on stretch assignments/

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promotions, the idea here is to push local leaders and technologists into bigger roles sooner and to increase their opportunities to develop capabilities faster. This approach requires making sure that these individuals have significant support from mentors and coaches who can transfer knowledge to fill in experience gaps.

3. **Technology – Access to information/knowledge** – The first bundle of practices and solutions drawing on information technology are designed to formally embed knowledge into systems, databases, etc. so that more employees have access to past learning, best practices, and state of the art knowledge. This information can aid in both sparking new ideas and innovation and more quickly ramping up talent.
 - ***Move questions and answers to more open forums:*** Several participants noted that they are trying to push more discussions and knowledge sharing to open forums as opposed to one-on-one problem solving. This requires both short-term forums and longer term posting technology so that individuals understand the context of the information that was exchanged, see alternative perspectives and solutions, and continue to locate and add knowledge over time. The openness of the discussion increases the diversity of ideas and perspectives that are offered and increases the efficiency of knowledge exchange through greater participation.
 - ***Curating and categorizing content:*** To prevent information overload, make the system more efficient, and make sure the most relevant and best knowledge is passed on, companies need to ensure that content is searchable, linked to other relevant information, and part of the broader conversation that developed the knowledge/information stream or document. Better knowledge curation will ensure that employees don't have to surf through thousands of documents and conversations to find something relevant and will facilitate the tracking of outcomes. Also a decision should be made on who curates so that there is some evaluation of the relevance, accuracy, and quality of the information that is shared and documented.
 - ***Moderators of on-line databases and discussion boards:*** To ensure that content is continually updated and discussions are ongoing, knowledge networks need moderators that manage the community to keep it active, to categorize the learning outcomes, and to curate the content and context. For very large communities, the moderator role can be a full-time position.
 - ***Automate and speed up entry and sharing:*** While we did not surface many ideas on how to do this, all the participants noted that it is important to think through how to move toward automated IT processes on posting and curating so that it is not fully dependent on individuals.
 - ***Central Repository:*** In order to avoid the emergence of small, hidden communities, it is important to have a central repository where everyone posts. Companies need mechanisms and incentives to encourage knowledge experts to combine knowledge in single sources instead of lots of separate repositories. One challenge is determining whether this should be done at the firm-level (e.g., a KM group) or strategically (e.g., learning communities within business or functions).

4. **Technology – Access to people** – The second bundle of IT solutions was focused on increasing employees' access to others in order to increase the exchange ideas, information, knowledge, and expertise.
 - ***Embedded in work:*** Participants agreed that the most valuable interactions are those that occur in the context of tangible work - collaboration around assignments and projects.
 - ***Off-site meetings and fairs:*** A few of the companies have run regular off-site meetings or fairs that provide an open forum to pitch and discuss preliminary ideas and then hold sessions that delve deeper into ideas that generate the most excitement among participants. Participation across sessions is voluntary and flexible and the leader of each session is charged with taking notes on the discussion that are then turned into recommendations and projects.
 - ***Jam sessions:*** Online jam sessions have been run by a number of companies to facilitate idea generation and discussion around a specific topic that is relevant to a broad cross-section of the firm.
 - ***External collaborations:*** In addition to facilitating connections internally, many companies have put programs into place that build connections with external constituencies. For example, new employees may spend some time working for key partners or suppliers as part of their onboarding process and relationships may be formed with universities or research centers.

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5. **Leaders** – many of the participants noted that leaders play a critical role in facilitating knowledge management.
- ***Leaders drive knowledge through environment:*** Most participants noted that leaders are critical in establishing the environment that facilitates the flow of knowledge and employees' willingness to share critical information and ideas with one another. More work needs to be done to identify the characteristics and behaviors of leaders who can effectively shape the environment.
 - ***Central node for connecting employees and ideas:*** Based on their movement throughout the company and experience working with many different employees, senior managers in particular can serve in the unique role of connecting employees, ideas, and knowledge across the organization. It is important to think about the career paths and experiences that can enhance their role as central nodes that connect employees and knowledge – keeping in mind how managers develop insights and to what knowledge and which employees they should connect, building depth and breadth of experiences to meet and manage a wider range of employees, and how many managers need to fill this central node role.
 - ***Facilitating knowledge by exporting talent:*** Leaders also can increase the flow of talent by developing and exporting leaders and technical talent to other parts of the organization. It is critical to reward leaders who are net exporters of talent and to identify the leaders who are the best at developing leaders or talent even if they themselves are not moving up in the organization.
6. **Culture** – Of all of the factors, culture seems to play the most significant role given that it serves as the foundation for all other activities. Culture is the underlying factor that guides employees' behaviors to share information and reinforces the importance of knowledge seeking activities. Therefore, it is important to think through how to create an organizational culture or localized climate (i.e., sub-culture of a specific group) that reinforces knowledge management.
- ***Role of performance management:*** Multiple participants noted the importance of performance management in supporting and driving the culture to support knowledge management. Firms need to think about how performance management discussions and reviews clearly articulate the ways that individuals need to behave to support knowledge exchange (e.g., individual outcomes vs. network outcomes; interaction across lines vs. participation within lines).
 - ***Compensation and recognition:*** As with performance management, companies need to assess if compensation and recognition systems are aligned to drive the behaviors required for knowledge exchange. For example, are these systems designed to reward collaboration, openness, and helping others or do they encourage knowledge hoarding?
 - ***Leadership development practices:*** Companies need to clearly define leadership principles that create a shared language and motivation to support knowledge sharing and learning.
 - ***Radical vs. incremental culture change:*** Some of the participants noted that their companies have engaged in major changes (e.g., performance management system overhaul) to drive radical shifts in their collaboration and knowledge sharing culture. Other companies, however, have taken a more incremental approach by running small pilot programs to build credibility, ensure rigor, and reduce resistance to the changes.
 - ***Time for reflection:*** An important component of building a culture that supports effective knowledge management is providing employees with an opportunity to regularly reflect on the tools and processes to ensure that the current direction and approach is working.
 - ***Balancing protection and openness:*** A challenge that firms increasingly face is how to balance the need to carefully protect intellectual capital while at the same time encouraging the open exchange of knowledge. Thus, the culture needs to be designed so as to highlight what falls under the banner of acceptable knowledge sharing.
 - ***Not overemphasizing the expert:*** Putting too much emphasis on the knowledge of experts leads to a passive culture in which everyone looks to the expert for the learning. Instead, the culture needs to emphasize the learning that comes from interacting with a broad range of people and utilizing many different sources of knowledge (e.g., other employees, lessons learned databases, blogs).

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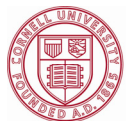
Measuring the Impact of Knowledge Management Initiatives

Participants noted that it is important to think through how to effectively measure knowledge management in terms of both assessing the extent and direction of knowledge sharing and establishing the impact and return for knowledge management investments. Some potential ideas regarding metrics for knowledge management include:

- Best practice replication process – what is the adoption rate of best practices and the business results tied to the transfer (e.g., increased safety or productivity)?
- Measures of capability acceleration, such as time to proficiency, ability to minimize the effects of attrition and retirement on the business, and number of exceptions to the talent planning process (e.g., re-hiring of retirees, extensions of time in role).
- Rate of knowledge transfer and capability development
- Return on human capital investment – what are the performance returns for the talent that has been attracted and developed and how does the firm perform on knowledge outcomes relative to companies that have made similar investments?
- Network analysis – measuring who impacts knowledge flow and knowledge outcomes and differentiating contribution to firm knowledge.

This Summary Report was prepared by Chris Collins and Brad Bell for use by participants of the CAHRS Knowledge Management and Organizational Learning Working Group and CAHRS Partner organizations.

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