Chapter 4

Challenges of Implementing Systems for Knowledge Management

Static Systems and Dynamic Practices

*Michele H. Jackson and Julie Williamson*

Consider the following scenario. An employee needs to find something for a client. As per her company standard, she starts by looking in the company’s “knowledge repository.” Coming up short, she searches her hard drive, and looks on the Internet for some good information on the topic. This is the prescribed order of events according to the company’s knowledge management process, and should result in a successful discovery of how to best serve the client. Consider a second practice which might more accurately represent what really happens. She starts by looking on her hard drive. She might call a friend or two for advice or suggestions. After about an hour of searching, she hasn’t found quite what she’s looking for, so she sends out a global e-mail to her colleagues, asking for help. Within about 10 minutes, she has a dozen replies, two of which have exactly what she thinks she needs. In addition, three people reply and indicate that they too would like to know what she is looking for, and would she please forward along anything she finds. She does so, and also calls one of the individuals who had what she needed, and has a short conversation about the information, which helps her to contextualize it in a way that would be critical for her client. Furthermore, she learns that her colleague has a particular affinity for the problem she’s working on, and that he is willing to be a resource to her going forward. She also gives him some feedback on what he provided based on her own experiences in the area. Next time, she'll probably just call him directly.

The second process described here may be systematically discouraged and technically deemed inappropriate within the organizational policies. Management wants to make sure the knowledge repository is seen as the ultimate resource, and believes that discouraging the global e-mail or local network approach will encourage people to make sure knowledge assets are appropriately uploaded and stored in a searchable format. They provide monthly reports on how many assets are stored in the repository, how many searches were executed, and other various bits of data about its use, and present awards to people who add to the repository. They also keep track of who sends global e-mails to find information, and count it against individuals in their performance evaluations. There is no discernable effort to track the quality of the assets in the repository, the
value of the information shared between individuals outside of the repository, or the new ideas generated when people connect directly. They believe they have a full commitment at an executive level to supporting managing knowledge as a strategic and competitive asset. This belief is supported by both the dollars invested in the knowledge management system (KMS) and the enforcement policies that have been developed and implemented. There is a view within senior management that the knowledge base itself is both a strategic asset and a competitive advantage.

This scenario is a composite of several experiences across organizations working to implement systematized knowledge management. It isn’t limited to any particular industry or company; it is played out in many different kinds of business environments every day. The drive to systematize and manage knowledge, to create a database of knowledge assets, and to document and codify processes for using knowledge is pervasive, but it is also difficult to deliver. Furthermore, when attempted in the absence of formal approaches to and investment in network development and knowledge-sharing practices, knowledge management cannot deliver a complete asset.

Knowledge management (KM) has been researched in many disciplines, particularly in the past 15–20 years. Management science, information systems, human resource management, and other areas have all taken up the challenge, examining the idea of knowledge management from a variety of angles, and offering innumerable instruments for measuring, evaluating, and promoting KM tools and processes. In practice, while some companies like British Petroleum (BP) have experimented with and implemented ways to nurture knowledge development within coordinated KM efforts (Collison & Parcell, 2004), many more are stuck in the rut of tactical IT systems implementations or HR training program development. They are in what Maier and Remus (2003) refer to as the “knowledge management starter” phase, with a small group of KM enthusiasts working to build a repository of KM assets, but lacking a full KM strategy to build processes, practices, and assets together.

These tactical efforts are often defended by positioning the KM repository as a strategic asset. This position is typically supported by numbers—the number of artifacts, the number of users, the number of queries, the number of terabytes in the database, and the number of members of a community or network, all of which provide management with reassurance that they have knowledge within the organization and that it is under control. While this is useful in some ways, we maintain that the systems and tools-based approach, applied in isolation, actually results in knowledge being a less strategic asset. In their business analysis of knowledge management at work in BP and other organizations, Collison and Parcell (2004) draw an apt analogy for knowledge repositories. They point out that spring water is marketed as “bottled directly at the source” rather than “drawn from the lake.” In the same sense, knowledge drawn from a
repository may be valid, but it lacks the freshness of knowledge taken from
“the source” – the originator of the documentation, or a current practi-
tioner of a particular skill. It lacks context, currency, and, at times, appli-
cability. But it can be measured, managed, and controlled, it can be useful,
and its breadth and depth can be visualized by the average executive,
shareholder, employee, or other interested stakeholder. The managerial
need to account for tangible assets must be complimented by recognition
of the inherent value of less tangible knowledge practices, built on the
enduring connection between communication and knowledge. Without
this balance, organizational knowledge cannot be counted as a strategic
asset.

Despite extensive work done within the disciplines of management,
organization, communication, human resources, and others, interdiscipli-
nary examinations of knowledge management are less common. In this
chapter, we focus on the intersection of managerial/systems theory and
communication theory relative to knowledge management and knowledge
as a strategic asset. Specifically, we leverage a resource-based view (RBV)
of the firm with a practice perspective that sees knowledge as inherently
communicative. In this, we look for ways to integrate the theories, suggest
enhancements to organizational activities, and extend the view of commu-
ication practices that impact the positioning of knowledge as a strategic
asset. We recognize that the managerial view of knowledge management is
typically conceived as asset based, and exploring the integration of commu-
ication practices and managerial assets provides a dimension of
interest.

Through this examination, we challenge the assumptions around what
has traditionally been required for knowledge to be a strategic asset, the
ways in which knowledge is understood as a strategic asset, and how
support for both systems and practices is important for knowledge to be
positioned as strategic.

We start with a review of knowledge management as a business area
and the conceptual development of knowledge as a strategic asset. We
build on existing case studies available in the business press to understand
ways in which knowledge is managed and tracked. We explore ways in
which managerial instincts to reduce knowledge to text and to reduce
knowledge-seeking to defined processes through systemization need to co-
exist with dynamic, ambiguous, and difficult to measure individual and
group knowledge practices. We argue that businesses need to value and
invest in both sides of the equation to support the placement of knowledge
as a strategic asset. We conclude with a proposed combined model of a
framework for understanding knowledge practices together with the appli-
cation of explicit knowledge assets. In taking a practice-based view in
coordination with a systems view, we believe a more robust model of
knowledge as a strategic asset can be understood, based both on the tangi-
ble, explicit assets created and gathered and the communicative practices
that lead to a “capacity to act,” driving new knowledge creation (Kuhn & Jackson, 2008). In summarizing, we discuss ways in which joint research efforts that attend to both the systems and practice measures can contribute to theory development and organizational application.

Knowledge Management Review

In today’s work environment, we see a situation where knowledge and knowledge workers are an assumed part of many organizations. According to Jonathan Spira (2005), who has built a business (Basex) around serving the knowledge economy, “at the beginning of the 20th century, unskilled labor accounted for about 90% of the workforce, today that figure is closer to 20%.” Spira further estimates that “Knowledge workers spend at least 20% of their time each day searching… That costs companies thousands of dollars per worker, and more significantly, delays completion of work.” He estimates that this lag-time cost businesses approximately $25B in 2004 – a number that would only increase, going forward. He quotes IBM’s Vice President of Strategy, Mike Wing, saying “We should be long past congratulating ourselves for the simple epiphany that intellectual capital is better than physical capital” – a comment that is indicative of why knowledge management is no longer an emerging concept that businesses should consider, but rather an imperative that has come into its own for any competitive business. These kinds of statistics demonstrate the significant role knowledge plays in defining both organizations and workers.

Despite its 40-plus year history, the idea of an economy fueled by knowledge seems to have had its coming out party in the 1990s, as evidenced by both investment in and research on knowledge management as a field – enough of a spike in interest to consider it as a management fad, but with characteristics to make it a fundamental part of a business (Swan, Newell, Scarbrough, & Hislop, 1999). Throughout this decade and beyond, companies began to act, through significant investment, on the corporate view of knowledge as an asset to be captured, valued, and marketed. This has been spurred by tremendous improvements in communication, storage, and search/retrieval technologies, improvements in business processes for sharing information, and the ongoing risk of attrition of old and new workers from Baby Boomer retirements to Gen Y’s habit of churning employment. The goal of these KM efforts has typically been that of making visible, systematizing, and cataloging organizational knowledge in a tangible, explicit form, generally through IT systems, or learning and development tools.

To understand the scope of the investment, consider that the market size for basic content management systems alone is estimated to reach approximately $4B in the United States in 2010 (Rockley, 2006). The addition of newer forms of knowledge management systems, including blogs, wikis,
intranet and extranet sites, ERP systems, customer information systems, and the tracking and indexing of e-mails and text messages, will only accelerate this growth. Today, there is little argument in the business world that organizational knowledge exists, that it is valuable, and that it should be collected, monitored, and managed, and many organizations view organizational knowledge as a strategic asset, resulting in resources (people and dollars) being committed to systematize KM.

The industry that has built up around KM has been a combination of IT systems developed to create large, searchable repositories and the development, usually in human resources (HR) departments, of extensive training materials and approaches to push information about documented processes to employees. Even in process-oriented KM environments, the primary measures of success often come from explicit documentation of process models, procedure steps, or other forms of tangible assets that can be catalogued and searched. As a result, KM has become heavily supported by IT departments or HR departments, sometimes simultaneously and/or competitively, and often with little coordination. This divide is sometimes referenced in association with the split between systematized and process-oriented approaches to knowledge management. In both cases, thinking back to the analogy from Collison and Purcell (2004), the goal seems to be to “fill a lake” rather than to “bottle the source”. IT departments build repositories, search engines, and other technology-centric tools to capture and catalogue knowledge, while HR departments write process and training documents to provide individuals with a pre-determined set of steps by which they can navigate the organizational knowledge base. In both cases, efficient and effective KM is often presented as a strategic asset to a knowledge-based organization.

**Knowledge as a Strategic Asset**

The IT and HR approaches are similar in their zeal to reduce knowledge to an accessible, searchable, retrievable, and replicable asset. This reductionist approach actually presents a challenge to the idea of knowledge as a strategic asset. Using the resource-based view of the firm (RBV), a strategic asset meets the criteria defined as valuable, rare, inimitable, and non-substitutable, often referred to as the VRIN criteria. Within the RBV, the VRIN strategic attributes are often considered as a bundle, meaning that having an individual attribute does not normally constitute a strategic asset. However, understanding each individual attribute is helpful as we work to connect systems and practices into the bundle that represents knowledge as a strategic asset. Bowman (2006, pp. 415–416) provides a useful set of definitions for each individual attribute, highlighting *valuable* as being something that supports revenue flowing into the company. *Rare* is a resource that is not found in competing firms, and that generates superior revenue off the same cost basis. Bowman (2006) points out that these
two measures represent a point in time, and may change quickly depending on market conditions. An *inimitable* resource is something competitors have a difficult time replicating, either because the conditions whereby it is created are ambiguous, or because of inherent dependencies that exist to create the resource. A *non-substitutable* resource is one that cannot be produced outside of the unique conditions of the organization that holds the resource. Resources that are inimitable and non-substitutable represent more enduring value to the organization over time. These definitions will be important as we unpack the differences between systematized knowledge assets and indeterminate knowledge practices, and how they both contribute to knowledge being a strategic asset.

Strategic assets provide a means of differentiating from competition, and a way to assign tangible value to the resources of the organization. In combining RBV with knowledge theory, Bollinger & Smith (2001, pp. 10–11) suggest that “collective and cumulative organizational knowledge” meets the VRIN characteristics, adding that “organizations that wish to remain competitive should develop mechanisms for capturing relevant knowledge, and disseminating it accurately, consistently, concisely and in a timely manner….” They encourage combining this with a focus on the processes of knowledge development and transfer, acknowledging the value of process in addition to systems. We build on this idea, knowing that in application, many organizations focus primarily on the systems and tools required to support capture and dissemination. The challenge we see with the systems and process-based knowledge management approach is that it still drives to documentation and storage, and these two activities may result in organizational knowledge becoming less able to fulfill the VRIN requirements.

**Knowledge as a Strategic Asset: The Systems Approach**

The managerial approach tends to rely on familiar measures to determine success – for example, Jones (2003) provides a case study of a global financial institution that developed a balanced scorecard approach to measuring their knowledge management implementation, based on four dimensions: (1) designing and building … an intranet site; (2) replacing filing systems with a unified records management procedures; (3) storing “know-how” in a single knowledge base; and (4) providing a single point of contact for IT support. Measures were then taken regarding the use of the various dimensions – for example, how many times the Sharepoint site was accessed, and the amount of time spent searching. As Jones notes in the case study, adoption and use remained low throughout the study period, although levers of forced behavior changes, executive encouragement, and advertising benefits did create measurable changes in contributions. This type of benefits assessment based on contribution numbers, usage statistics, and customer satisfaction surveys is not uncommon in companies attempting to imple-
ment a KM strategy. Other case studies provide process-based and practice-based examples of KM; however, the connection back to how these different approaches support KM as a strategic asset is more limited. As a result, business cases are evaluated based on quantitative metrics that are used to validate continued investment in systems and tools for KM.

This systems perspective is consistent with the managerial approach to strategic assets that requires explicit, tangible assignment of value and return, measured against the VRIN attributes. Similar to the limitations noted in the strategic contingencies theory of power (Hickson, Hinings, Lee, Schneck, & Pennings, 1971), when only one dimension of a phenomenon is examined, the results fail to fully conceptualize the theory. The systems perspective serves its purpose of providing organizations with a business rationale for investment, attention, and experimentation relative to systems and processes to grow a repository of organizational knowledge. However, its embedded assumptions of knowledge reductionism and centralization leave this approach with a limited vision of knowledge as a dynamic, somewhat messy, and often amorphous thing, and focuses investment on systems implementations. It is this ambiguity that creates the possibility for knowledge to fully meet the requirements of the VRIN attributes to be seen as a strategic asset, but a purely systems-based view neglects or attempts to remove ambiguity from the system. Combining the systems view with a communication perspective grounded in practice allows for a full articulation of the VRIN characteristics relative to knowledge and knowledge management.

**Knowledge as a Strategic Asset: Practice Theory**

An expanded perspective to include the generative aspects of knowledge-seeking practices provides a way of challenging the limitations of systems and tools-based approaches to valuing knowledge management. Practice-based communication theory is action oriented. It places the emphasis on the activities and communicative aspects of knowledge development and distribution. Through a practice lens, the role of knowledge can be seen as both a static response to an inquiry and a generative stimulus to solving for unanticipated needs. This assumes organizational movement and change, where dynamic organizational knowledge supports an ability to respond to unpredictable situations.

Allowing for a perspective that assumes action, change, and unpredictability opens the door to realizing the promise of KM as a way of improving a firm’s position relative to its competition through the placement of organizational knowledge as a strategic asset. For example, when a knowledge seeker in an organization has a need, he or she has several choices. If the organization has invested in knowledge management tools (as most have), there may be systematized procedures to follow to access a knowledge repository, talk with a knowledge manager, or access a
defined network of knowledge owners. The degree to which people follow these procedures is measured and reported, and individuals are often encouraged (positively or negatively) to follow them. The knowledge seeker also has less obvious choices – he or she can follow an indeterminate path of discovery which might involve talking with friends or colleagues, referencing outside information, or calling on subject experts outside of the official procedure. These choices are more difficult to measure quantitatively and assign value to because they are often hidden in the organization and personal in nature. The selected course of action may be driven by the level of determinancy in the need, the knowledge seeker’s preferences and experiences, or the degree to which the systematized tools have accurately predicted the contexts and conditions under which knowledge is sought. In some cases, the knowledge seeker may experience a moment of emergence based on the coming together of information, experiences, and community engagement, and non-standard practices and realize a new solution, create a new idea, or otherwise address his or her knowledge needs in a way previously undocumented.

Many knowledge seekers employ a combination of all three activities, regardless of organizational policy, rules, or other guidelines attempting to enforce systematized processes. Through these activities, there is the ongoing opportunity for the coming together of what is discovered and what is known to create something new and to support developing a “capacity to act” (Kuhn & Jackson, 2008) based on the tools used and practices engaged. This may be responding to a client request, providing “real time” assistance (as in the case of a call center), preparing a sales presentation, creating a new product, understanding a competitive threat, or myriad other business-related problems that present themselves to knowledge workers. The level of determinancy associated with the need impacts the suitability of different knowledge-seeking practices. The less determinate the need, the more important practices become, while systems and tools become less useful. Figure 4.1 provides a perspective on

![Figure 4.1 Knowledge-accomplishing practices.](image-url)
knowledge-accomplishing practices. The three practices form a triad of knowledge assets that support knowledge being strategic to an organization, according to the VRIN attributes.

By means of review, assets are valuable when they support revenue generation, rare when they are unique to the organization and support margin competition, inimitable when they cannot be replicated by the competition, and non-substitutable when they can only exist within the organizational context. We suggest that bringing together dimensions of determinacy and centralization can drive the way in which knowledge assets, both systematized and practice-based, as a body represent a strategic asset. Choosing to evaluate organizational knowledge based only on assets in a repository or only on practices observed will limit its strategic value across the VRIN attributes, because determinate situations may be served by systematized assets that are often valuable and rare, meaning that they can be tangible assets to be sold or traded at a point in time. In less determinate situations, where the knowledge seeker is in need of ambiguous, non-specific, or yet undiscovered knowledge, the localized practices employed to gain the capacity to act become the knowledge asset. These practices are often inimitable by the competition because they are highly localized, and they become non-substitutable because the local context is what enables them to support a capacity to act. Kuhn and Jackson (2008) point out that ambiguity offers a rich environment for improvisation and emergence of new ideas. Likewise, taking an RBV perspective, ambiguity is a factor in maintaining an asset as inimitable for the competition (Bowman, 2006); that is, as the way in which an asset is produced becomes clear, it also becomes more subject to imitation and possibly substitution.

Knowledge as a Strategic Asset: Bringing it Together

A fully systematized approach to knowledge management cannot materialize knowledge as a strategic asset for an organization because it fails to satisfy the unanticipated, indeterminate needs that can only be met through communicative practices. An integrated approach is imperative to elevate knowledge to a strategic asset within a firm. In an integrated approach, the dimensions of determinacy and centralization become evaluative factors in understanding organizational knowledge and knowledge practices as a strategic asset. This encapsulates both the repository/document processes supported by traditional IT and HR approaches, and the practice-based view supported by a communicative perspective of knowledge. Table 4.2 summarizes an integrated view of knowledge as a strategic asset, based on the determinacy of the needs being addressed.

A centralized repository of information and documented processes is valuable and may be rare compared to the competition in situations where knowledge needs are highly anticipated or determinate. These types of needs might include product specifications, contract information, pricing,
locations, previous experience with a particular client or product, answering common customer questions, or documented results from a previous situation. In these situations, a well-filled and searchable knowledge management system has the potential to provide faster response times, the perception of better customer service, faster quote to cash, and other measurable benefits relative to the competition. Many organizations focus primarily on the measurement and reporting of systematized assets or processes, for both tangible (digitized) assets, and intangible but process-driven knowledge seeking (e.g., communities of practice, networks, subject matter expert (SME) identifications, single points of contact). For example, decisions regarding funding for a community of practice may be tied to how many white papers are produced, or contact with a SME might be systematized through a ticketing process where the SME is rewarded with a bonus if he or she has a certain number of tickets closed.

In the drive to systematize, the strategic importance of localized knowledge-seeking practices that are inherently tied to communication and are used to respond to unanticipated, indeterminate needs gets minimized. In particular, the inimitable and non-substitutable aspects of knowledge as a strategic asset are supported by the ways in which indeterminate situations are responded to, usually through highly localized practices. These situations can trigger valuable results in emergent knowledge, ensuring the continued expansion of the organization’s capabilities and advantages. Localized practices often exist only within the context of the organization and the individual executing them, making them difficult, if not impossible, for a competitor to imitate. The actions and their results are dependent on the environment in which they are executed, making them non-substitutable, meaning that competitors cannot use something different to create equal results. An environment with the structures to strike the right balance between centralized resources to respond to highly determinate needs with localized resources that can respond to highly indeterminate needs attends to all dimensions of a strategic advantage for an organization.

In considering the “7C” model (McPhee, 2008), we suggest that it most easily foregrounds the managerial processes, in which the approach to knowledge management centralizes the creation of a tangible asset to

<table>
<thead>
<tr>
<th>Table 4.2 An integrated view of knowledge as a strategic asset</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of need</strong></td>
</tr>
<tr>
<td>Anticipated/determinate</td>
</tr>
<tr>
<td>Unanticipated/indeterminate</td>
</tr>
</tbody>
</table>
capture and track as a centralized event or process. A practice-based view of knowledge processes shifts the cause/event/consequence focus to the communicative interactions that support both explicit and implicit knowledge development. Extending Glaser’s (1978) model to accommodate this, we can centralize the action that happens around knowledge needs, with a strong emphasis on context, covariance, and causal factors. Documentation and development of assets becomes a constituent subprocess, while the communicative processes by which knowledge is discovered and applied move to a more central position. Context becomes more important, as do covariances including indeterminate processes by which knowledge comes to be known. The managerial lens emphasizes asset creation, which may be accomplished in a variety of ways – individually, collaboratively, automatically, and so forth. This lens aligns with Glaser’s input/action/output flow in the foreground. As a resource or an asset, the consequence is that the asset or process is documented in a retrievable way, and it is reduced to a replicable, commonplace item that may be broadly available within the firm. It may be removed from its original context and applied in ways that were not considered when the primary event took place. The resource-based view of the firm does not heavily weigh covariance or context, focusing more on the cause/effect/consequence chain of events, with some attention to the conditions (availability of systems and tools) under which they occur. A combined view recognizes especially the cause – the impetus for the knowledge-seeking activities that drives the choices made regarding what knowledge assets to utilize. From the cause, the context and cultural influences become important, driving to consequences that may include maintaining a competitive advantage as well as creating new knowledge for the organization.

Our combined perspective acknowledges the value of digitized knowledge assets and orderly processes, but makes clear that maintaining knowledge as a strategic asset requires an environment that supports indeterminate and emergent practices as well. Without these dimensions, knowledge is still an asset, but it is not strategic and it does not support a strong competitive advantage. In application, this is important when it comes to decisions regarding funding for KM initiatives and business cases for systems and tools versus cultural or social efforts. In theory development, this has implications regarding what we privilege, how we understand organizational choices, and methodological choices for researching knowledge in organizational settings.

**Combining Perspectives: Methodological Challenges**

In addition to understanding the penetration of systems and tools through traditional quantitative measures, a combined perspective would include examination of other ways to understand how knowledge practices are enacted in the workplace, when and how choices are made to engage
determinate or indeterminate activities, and how different activities are
privileged in the organizational context. This includes the ways in which
power and control are associated with knowledge management, making
decisions regarding prioritization, funding, and exposure. This requires
qualitative analysis in addition to the common quantitative analysis used
to evaluate systematized assets. Practice-based qualitative analysis has been
used effectively to evaluate and understand cultural dimensions that might
remain hidden with different research agendas. Practice-based methods
have been used to uncover and define the context in which organizations
are successful at ambiguous, difficult-to-define practices (Orlikowski,
2002), and the implementation of processes that support knowledge devel-
opment and transfer through groups like communities of practice (Saint-
Onge & Wallace, 2003; Wenger, 1998; Wenger, McDermott, & Snyder,
2002) have been systematized to the point that they are often measured in
terms of assets developed, participation, and/or group satisfaction. Various
approaches to primarily qualitative network analysis have been actively
explored as KM has grown as a field (see, for example, Hansen, 2002;
Leonard & Swap, 2005; Monge & Contractor, 1998). These methods
provide useful ways to explore knowledge-sharing practices, but still do
not fully help organizations to understand knowledge as a strategic asset,
meeting all of the VRIN attributes. They lack a defined approach to under-
standing the impetus of the knowledge-seeking activity, together with a
way to see the choices made by the knowledge seeker, and how those
choices influence the result and contribute to ongoing knowledge develop-
ment in the organization.

Recently, Kuhn and Jackson (2008) suggested an “episodic” framework
that examines discursive moves in problem-solving episodes and evaluates
them based on determinacy as a function of identification, legitimacy, and
accountability. This framework is a useful way to build an understanding
of how various knowledge assets support scenarios with different levels of
determinacy. In one of their examples, a call-center representative assists a
new staff member in finding and implementing a documented process. This
episode of a combination of localized and centralized knowledge seeking
and sharing can be seen as an example of the full value of the strategic
nature of knowledge in the organization. There is a systematized asset that
is made available to someone because of the practice of assisting new staff
members through the sharing of practices. Extending this framework to
understand how enactment reflects systematized or practice-based activities
to support the knowledge seeker’s capacity to act – the central versus local
dimension – would allow for a robust evaluation of an organization’s
knowledge base as a strategic asset, or simply an organizational resource.
It provides a framework within which organizational knowledge can be
seen as valuable, rare, inimitable, and/or non-substitutable, and how it can
meet a range of organizational needs. Recalling the VRIN attributes in the
call-center example, the process documentation is valuable because it sup-
ports the representative in providing service to the customer, thereby supporting revenue. It is rare because the information it contains is not readily available to be offered in the same way by an external organization. The practice of helping new representatives by showing them the process when it is needed (as opposed to formal training) is inimitable – only an experienced representative in that context could have recognized the need and provided the knowledge – and it is non-substitutable – the same representative in a different context would not have been able to engage in the knowledge-sharing activity.

**Conclusion**

The promise of both the IT and HR tools and systems that have been developed to support KM is that the complexity of individual experience and know-how can be reduced to a manageable asset that can be routinely replicated, effectively ending the messiness that comes from knowledge that has not been catalogued. However, this promise has rarely been kept. As Pollard (2006) noted,

> The story of KM (knowledge management) so far has been, for the most part, a failure – failure to articulate, to imagine, and to implement. We allowed the bold vision of knowledge sharing to be diminished and appropriated by those who saw it merely as an exercise in automating the acquisition, storage and dissemination of documents…. Most executives saw it as a means to speed up and reduce the cost of the back office, the same way the assembly line had reduced manufacturing times and costs.

In the scenario cited in the introduction, knowledge found in a repository may be suitable for certain situations, especially when the client has a predictable request. However, the contextualization available when the seeker goes to “the source” provides additional value that sets the knowledge gained as a strategic asset to the firm. An organization that only has one or the other – systems or unidentified practices – does not have a strategic asset in its knowledge base. Looking only at the systematized assets and their application does not fully meet the VRIN attributes, but neither does a pure practice-based view. Only by bringing them together do we see the strategic value of knowledge in a way that can be fully valued by an organization, especially one that requires return on investment in order to validate future investments.

A systematic approach to knowledge management that focuses on building reservoirs of knowledge assets is quantitatively measurable in management terms. It can be understood as valuable and rare relative to generating revenue, maintaining a margin advantage, and supporting a competitive advantage. However, it does not afford a complete picture of the strategic
nature of knowledge assets of an organization, because it neglects the indeterminate processes, or seeks to marginalize or eliminate them. This limits an organization’s ability to leverage the power of emergence, the moments of serendipity that occur in communication that underpin indeterminate knowledge-seeking practices. A culture and environment in which these moments can occur naturally and frequently creates a significant competitive advantage by virtue of knowledge-seeking practices that are inimitable and non-substitutable. KM environments must be able to respond to a full range of determinate and indeterminate needs to fully satisfy the RBV strategic asset requirements.

We maintain that systemization and categorization efforts of the last two decades are useful ways of understanding certain forms of explicit knowledge as an organizational asset. The more indeterminate practices around knowledge-seeking practices provide the additional dimensions that make knowledge a strategic asset to an organization. Researchers and practitioners alike can benefit from models that cut through the reductionist impulse and value the processes of knowing, rather than focusing on what is known. Doing this requires overcoming methodological challenges as well as balancing the very different impulses of systems versus practice-based values. By utilizing the RBV theory together with the practice-based communicative theory, this balance may be achieved in useful ways that extend our understanding of both knowledge as a tangible resource and knowledge as an ambiguous resource.

Implications for Practice

There are practical implications to this approach. The managerial emphasis on systemization impacts perceptions of value in an organization. Spira’s concern quoted earlier regarding the cost of time spent searching may be misplaced in a more robust definition of knowledge as a strategic asset – perhaps the time spent searching isn’t a cost, but rather an investment, in the development of knowledge-seeking skills. If the practices of knowledge seeking are an integral component of knowledge as a strategic asset, maybe the estimated $25M isn’t “lost;” rather, it is an investment in developing the knowledge asset. This shift in perspective has practical implications regarding funding allocations, management commitment, and employee engagement in the practices of knowing, as well as the tracking of knowledge as assets to the organization. For example, investing in collaboration networks that help people funnel their search efforts to targeted groups of people may be more productive than investing in systems that make it seem unnecessary to connect with peers and other experts. Rather than tracking only contributions of documents to a knowledge database, management evaluations could also consider contributions to peer efforts, including peer reviews, discussion participation, and formalized job shadowing or experiential learning opportunities with associated budgets and
plans. This would also shift the focus to the practices of knowledge sharing, as highlighted by Spender (2008) in his call to be more attentive to the actual work of organizational knowledge and the managerial practices that surround it.

Finding ways to value the indeterminate practices without forcing them into a systematized structure is necessary in protecting the strategic dimension of knowledge in a firm. At this time there are few robust frameworks for understanding the value of localized activities in response to indeterminate needs. We have suggested here an approach that focuses on observing episodes of knowledge seeking, drawing out the ways in which both systems and practices work together to create strategic value. Continuing with this line of inquiry will assist organizations in better understanding how to best leverage organizational knowledge in a competitive environment. Additionally, it will further our understanding of the vital role knowledge plays in organizational design, and role of communication in fostering the ongoing development of organizational knowledge over time in a way that effectively attends to knowledge needs and maintains a competitive advantage.

References


