WHEN AND HOW TO INTEGRATE PROCESS, KNOWLEDGE, AND DATA MANAGEMENT

Process, Knowledge, and Data Management Intersections Series

Most organizations report at least some level of integration between process management, knowledge management (KM), and data management. Yet APQC has found that few organizations have cohesive, enterprise-wide strategies to straddle these three key areas. Even in instances where they are structurally integrated (e.g., made part of the same team or reporting structure), tasks and objectives are not always aligned effectively.

In September 2020, APQC’s Holly Lyke-Ho-Gland (principal research lead, process and performance management) and Lauren Trees (principal research lead, knowledge management) conducted the first in a series of roundtable discussions to further explore the benefits, tactics, and challenges of integrating these three disciplines.

Although most roundtable participants said their organizations do not have fully integrated strategies for the three areas, they noted that substantive connections are happening at lower levels of the organization, either on a project-by-project basis or within specific functions and departments. Participants shared examples of where they see integration occurring, common pain points and challenges for bringing the three areas together, and enablers that help drive integration.

Opportunities for Integration

For roundtable participants, good opportunities for collaboration and integration between process, knowledge, and data management include:

1. major software or system implementations,
2. high-compliance and/or high-risk areas, and
3. large-scale projects with support from leadership.

KEY OPPORTUNITIES

Major Software and System Implementations

Many participants agreed that integration works best in the context of new enterprise software or systems initiatives. For example, one participant said that when her organization is implementing enterprise systems, “all three units partner with IT, and we’re all sitting at the table bringing our expertise to the implementation of the system.” Another participant noted that, when her organization was implementing the customer relationship management and service platform Salesforce: “the business architecture teams worked closely with the solutions architecture team to capture the current state and build out the future state, with a heavy
emphasis on data. There’s an entire knowledge management team as well, who are making sure the organization is ready for change management, BAT [business acceptance] testing, and communications.” Projects like these present easy opportunities to start building ties between the three support groups and work toward a common goal.

**High-Compliance and High-Risk Areas**

Integration is easier to accomplish in high-compliance or high-risk areas (like safety) where there are requirements to connect data and knowledge to processes. For example, one participant explained: “One area where we do have this integration is in our safety practices. Every organization must take safety very seriously these days, and when you’re serious about a process, you need data, strategies for knowledge transfer, and accountability in place. We’re not going to fall short in that area, because we have that accountability in place.”

**Leadership-Driven Initiatives**

Even if only one area (such as process or KM) has strong leadership support and an enterprise imperative, it’s easier to integrate the other two areas in the context of that imperative. One participant, whose process initiative is guided from the highest levels of leadership, said data management and KM align naturally in the context of the organization’s process focus: “You won’t find many people using the phrase ‘knowledge management,’ but it’s happening organically as we map and assess processes and make decisions related to KM. Data management is also important because there is a lot of attention to understanding, recognizing, and controlling risks associated with the processes, including data risks.”

**WHAT MAKES INTEGRATION POSSIBLE IN THESE SETTINGS**

The three scenarios above present ready opportunities for integration because leaders are more likely to advocate for—or at least buy into—the need. Integration is seen as necessary, either to meet compliance requirements or to maximize the value of substantial investments of time, labor, and money the organization is already making to implement new technology or other changes. In these cases, organizations often find that it’s worth exerting the extra effort to integrate data, knowledge, and process in support of that implementation.

In addition, large-scale enterprise projects—such as a big software implementation or the move to process-oriented management—may come with dedicated change management and communication resources to help with requisite changes. This can help draw in both the support functions themselves and business groups that supply and leverage the processes, data, or knowledge.

**MISSED OPPORTUNITIES FOR INTEGRATION**

Integration between data, process, and KM takes deliberate and sustained effort. Without that effort, integration may not occur even under the most ideal circumstances. For example, in an enterprise project where one of the three areas is dominant, the organization may fail to realize the additional value that the other two areas bring if that value is not explicitly connected to the goals of the dominant initiative. In these cases, organizations may achieve integration in a narrow sense, but the integration is lopsided rather than a fully symbiotic interplay between the disciplines.
For example, after seeing the lessons learned template in her organization’s operational center of excellence, one KM leader felt that its development “would have been a great opportunity for the KM team and the operational excellence team to work together. The template is a project artefact for sure, but it’s also considered a knowledge management artifact. We’re doing a little backtracking now to reconnect with our partners in operational excellence to see if we can revise some of those documents.”

**Integration Pain Points**

Integrating process, knowledge, and data management involves numerous strategic and tactical challenges. As one roundtable participant noted, the specific pain points an organization faces depend on “where the momentum for integration is coming from.” For this participant, integration was driven by a top-down directive, and pain points related to the sheer volume and scope of data the team had to handle. However, other participants struggled with issues such as:

» lack of maturity in one or more of the key areas,
» operational silos, and
» inconsistent terms and definitions.

**LACK OF MATURITY IN ONE OR MORE OF THE KEY AREAS**

If an organization is not process-based and is stuck in function-based thinking, or if it has no strategy or resources devoted to KM, then it’s hard to look holistically across process, knowledge, and data management. In these cases, the organization should go back and build that foundational capability before pursuing an integrated view and approach.

Speaking to this challenge, one participant noted that, in her organization: “These areas tend to be treated as function-based rather than supported by a common enterprise structure. We’re spending a lot of time on change management right now to get people to see the benefit of having end-to-end processes rather than functional silos and trying to get the big picture pulled together rather than looking at it solely as data, processes, and rules.”

**OPERATIONAL SILOS**

If different stakeholder groups across the business have disparate systems or approaches for data, processes, or KM, it’s hard to arrive at a unified enterprise view of any one discipline, let alone a cohesive, integrated strategy for all three. One participant said that his organization has a decentralized structure with 10 locations, each of which uses different data formats and methods for collecting, analyzing, and drawing insights from data. In addition, each location works with dozens of contractors who add their own processes and data infrastructure to the mix. These operational silos make it difficult for the organization to develop an overarching data and knowledge architecture without pressuring individual locations or contractors to change the way they work.

**INCONSISTENT TERMS AND DEFINITIONS**

Integration is also difficult to achieve when people working in these areas bring their own terminology and definitions to the table. While this challenge applies more narrowly to data
definitions (e.g., if different departments use the same name for a measure but calculate it differently), it also applies more broadly to terms and methodologies within the three key areas.

For example, one participant said her organization combined KM, program excellence, and business insights into a single team to formalize their work together. As they began collaborating, the team realized that each group had a different understanding of ‘evidence.’ The KM team had a broader conception of evidence that included quantitative data as well as anecdotes and experience, whereas process and BI colleagues didn’t value this qualitative data to the same extent. The three teams had to educate one another about their worldviews and how they define key terms before they could collaborate on shared goals and objectives.

Integration Enablers
Big IT projects or other enterprise-wide initiatives play a role in integrating these areas, as do top-down mandates. Other enablers include:

» a common understanding of shared goals;
» strong data architecture;
» clear leadership accountability;
» a learning mindset across the groups; and
» an enterprise focus on big data and AI.

A COMMON UNDERSTANDING OF SHARED GOALS
To integrate effectively, process, data, and knowledge teams need a long-term strategic roadmap for the business and a clear understanding of how each group’s work contributes to enterprise goals. This roadmap allows the groups to figure out where their scopes intersect and how they can work more effectively and efficiently by teaming up (or at least clearly dividing responsibilities and establishing handoffs). Ultimately, if the organization doesn’t have—or can’t articulate—a clear vision for how it delivers value by integrating these areas, then it won’t happen.

STRONG DATA ARCHITECTURE
Consistent standards for how data is defined, collected, processed, stored, and used help enable data integration across the organization. It also helps the organization combine data with unstructured knowledge assets in order to derive better insights in the context of business processes and activities.

CLEAR LEADERSHIP ACCOUNTABILITY
When managers (at the senior or mid-level) are explicitly responsible for performance measures and outcomes, they may come to see the advantages of an integrated strategy to collect, share, and analyze data and knowledge in the context of business processes. For example, in one participant’s Salesforce implementation, vice presidents were given ownership of the transformation. This motivated them to interact with one another and prompted a more integrated view of process, data, and knowledge in the context of the implementation.
A LEARNING MINDSET ACROSS THE GROUPS
Process, knowledge, and data management professionals each bring unique skills and expertise to the table. But integration goes more smoothly—and is ultimately more effective—if each discipline comes to the partnership with an open mind and recognizes it has something to learn and gain from the other areas.

AN ENTERPRISE FOCUS ON BIG DATA AND AI
If leaders are interested in data analysis and advanced analytical capabilities (e.g., identifying complex patterns, making predictions, or automating processes), then it is easier to make a business case for integration as a prerequisite. Many organizations have long recognized a need for master data governance, but the current opportunities around analytics and AI have made it a priority, since disconnected and “dirty” data does not produce useful insights.

Conclusion
Some projects, like an enterprise-wide systems implementation, present ready-made opportunities for process, data, and KM teams to collaborate and integrate their work more deeply. Even in the best of circumstances, however, this integration cannot occur without effort and intentionality. Organizations that have successfully integrated these three areas were able to do so because support teams share common goals, are willing to collaborate and learn from one another, and have strong governance and accountability in place.

Stay tuned to APQC for additional roundtables in this series and further insights about how leading organizations work to bring these three key areas together.

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