



An Introduction to Project Knowledge Management: The Key to a Successful KM Project

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Introduction

Internationally recognized, Project Performance Corporation's Knowledge Management (KM) Division has been leading KM initiatives for more than 15 years. We have designed, developed, and deployed over 200 knowledge management systems, including websites, portals, and content/document management systems. Over the course of these deployments in a variety of organizations, our subject matter experts observed a lack of practical application of Project Management (PM) and KM methodologies. This led us to the creation of PKM: Project Knowledge Management, integrating the disciplines of both project and knowledge management.

Project management is a process-based discipline for executing projects from start to finish. Knowledge management is a collection of technique-based disciplines for managing information. While project management and knowledge management practices are found within organizations worldwide, these practices typically have varying interpretations and perceptions. Both practices have evolved over time, influenced by industry, geography, understanding, misunderstanding, and needs. This paper was written for worldwide private enterprises and government organizations wanting to minimize the common risks and issues associated with knowledge management initiatives by leveraging more rigorous and practical project management strategies.



Project Management + Knowledge Management
Project Knowledge Management

Most organizations recognize the value that common project management methodologies bring to almost any effort and the risks and potentially devastating effects of ignoring standard PM methods. Although the application of project management methodologies are vital to both project and overall organizational success, the practical implementation of those methodologies often needs to be re-evaluated. We have found that a lack of direction and focus on business value in the adoption of PM practices is common. For example, some organizations implement PM processes not to address a specific project, managerial, or organizational concern, but because industry standards and best practices suggest they are necessary.

An integrated PKM methodology enables organizations to maximize their investments by ensuring initiatives are on time and within budget, while sharing project challenges and successes that will drive continuous improvement.

Knowledge management is not as widely understood, nor commonly practiced, as project management. It might be seen as a project, program, concept, or methodology, depending on the job nature or the organization. The overall goal of KM is to translate an organization's institutional information into knowledge that can be communicated, shared, and ultimately reused. In short, KM is dedicated to connecting the right people to the right information using the most efficient and effective methods possible.

Although both project management and knowledge management are important practices that can bring value and enhance the productivity of organizations across the globe, they are often difficult to implement effectively and efficiently. Both PM and KM concepts run the risk of being misinterpreted, abused, or ignored, leading to unnecessary, resource costs, wasted energy, and frustration. More often than not, the challenges facing



successful knowledge management initiatives can be solved by applying proper project management methodologies. PPC's integrated PKM methodology enables organizations to maximize their investments by ensuring initiatives are on time and within budget, while sharing project challenges and successes that will drive continuous improvement.

KM Project Challenges – Communication and Scope

There are many KM projects that an organization can implement to better preserve, retain, and share knowledge and there are a number of technologies and methodologies available to support such efforts. However, KM projects often fail because of poorly defined scope, questionable business value, or impractical goals. These issues may be significantly attributed to a lack of communication. Lack of communication with an executive team or with customers and users can lead to mismanaged expectations and difficulty gaining project buy-in and acceptance.

Scope challenges are also common with KM projects because the idea and theory of knowledge management is exceedingly broad and correlates with many other initiatives within organizations. If the scope of the project is not clearly defined, communicated, and understood at the initiation of an effort, it becomes increasingly difficult to link goals and objectives to business value. Scope creep then becomes a factor, causing a breakdown in communication between project managers, sponsors, and ultimately users. This will inevitably lead projects down a slippery slope as the focus changes to theory and methodology to the detriment of execution. To complicate matters further, average KM experts are often characterized as having grand ideas with an interest in extensively talking about them, but lacking the practical project management skills critical to formalizing ideas into executable tasks or plans.

Additionally, many KM projects are challenged by the organization's lack of understanding of the full scope of continuous effort required for the success of the project. For example, implementing a new intranet portal can increase knowledge within an organization, which commonly leads to increased productivity with improved business value. However, a successful portal effort involves the creation of content management, collaboration, and ultimately migration plans. It also requires policy and governance to oversee the portal and ensure gaining or sustaining end-user adoption. Failure to understand the criticality of these additional plans and their associated costs cause KM projects to lose traction due to funding constraints, lack of direction and vision, and most importantly, the loss of the confidence of the stakeholders.

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Successful KM projects also require strategic vision. Long-term strategy is just as critical, if not more important, than short term or interim planning. If initial plans do not align with a long-term strategy, the end-result is often a mess. If there is no cohesive vision between users, management teams, and sponsors, the goals of KM projects often begin to alter. The focus begins to shift to "cans and could's" instead of "shoulds." These adjustments lead to the creation of vague business requirements that do not address the initial purpose of the effort as a whole, rather in silos. This dangerous shift in paradigm can be costly from both a financial and organizational perspective.

The Practical Application of PM Practices Addresses Common KM Project Challenges

The most positive way to address the challenges faced by most KM projects is to apply project management principles and methodologies. In other words, "plan, plan, plan." The Project Management Body of Knowledge (PMBOK) states "Project Management is the application of knowledge, skills, tools, and techniques to project activities to meet project requirements." The following sections illustrate the practical application of PM practices to common KM challenges within the context of the five standard and widely accepted Project Management phases; Initiation, Planning, Execution, Controlling and Monitoring, and Closing.



Phase One: Initiation – Understanding and Communicating the Need

All projects begin with the identification of a business need. It is important to determine up front, and communicate what the organization wants to do from a business perspective. Whether it is improving efficiency, enabling services or simply making a system more user-friendly, it is important to identify business drivers so that scope can be controlled during the course of the effort. If handled properly and managed effectively, Knowledge Management concepts will quickly translate to greater collaboration in the workplace, better management and retention of information, and measurable financial and resource return on investment.

Often KM efforts simply focus on the audience or users of a specific system or application and fail to manage the expectations of all parties. Various stakeholders have different expectations when using a system or process, and if those expectations are not met, they may come away with a negative impression of the overall effort. Many times, stakeholder expectations are not met because they do not have the proper understanding of how the system or process works or where to find information. Therefore, it is important to identify those who can elaborate on specific needs and can consider potential options for meeting the need. This process is achieved by documenting and communicating *stakeholder expectations*. Well designed outreach or training programs can also be discussed to effectively manage expectations through communication and instruction.

Additionally, during the initiation and planning phases of any project, it is critical to clearly communicate all current and future costs to all key stakeholders. Pricing out the implementation of a knowledge management system focuses on only one component of the project. It is important to also discuss the costs associated with creating plans and policies, designing and delivering training, and completing other important tasks. Failure to do so can cause a lack of trust and confidence with the project team and potentially derail the effort. *Financial analysis* processes help ensure total project costs are being addressed so that they can be communicated as part of the planning phase.

For example, PPC partnered with a large government agency to improve their internally facing portal. However, this agency had initially hired another organization for the installation, administration, and maintenance of the site. The portal was installed and administered to meet the documented requirements; however, it was rolled out with little communication, limited user buy-in, and without proper training. Portal usage dropped significantly within weeks of rollout and the agency felt the total costs of the investment were not clearly communicated nor understood. While installation plans were created, content management, governance, collaboration plans had not been discussed.

PPC worked with the agency's executive management team for this project to make sure they were familiar with the methodologies and the costs of properly deploying a portal with intuitive and actionable plans for each core component. Our team used our customer-centric methodologies to engage the portal users and re-establish trust by conducting user interviews and focus sessions designed to solicit content structure and functionality that would address their needs. We also worked collaboratively with the agency to establish a suite of plans and create a roadmap to drive their future strategies and budget for maintaining the portal. Although this process took time, it ensured that the scope of work for the entire effort and related costs were clearly understood by each member of the agency's executive management team for the project.

Successful KM projects have proper management tools in place to track, communicate, and mitigate risks and issues as they arise and to track action items throughout the course of the project. A risk and issue log is kept and reviewed on a regular basis and issues are addressed collaboratively by the project team. The log serves as communication tools and tracking artifact to ensure that ownership, probability, and



Successful KM projects identify and manage the expectations of all stakeholders.



proper mitigation is documented; further addressing the stereotypical “high level” and “theoretical” practices often labeling KM projects.

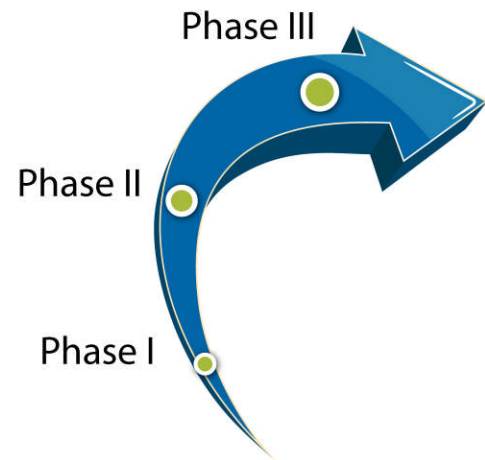
The main output of the initiation phase is the project charter that includes stakeholder identification, business case introduction, financial analysis, and the establishment of a risk and issue log. The practical use of these four components will lay a firm foundation for your KM initiative.

Phase Two: Planning – Roadmap Definition

During the planning stage of your project, standard project management methodologies suggest that *scope, schedule, and cost* are defined and then revisited during the course of the project. These three components, along with quality and customer satisfaction, form the foundation for successful project management. Scope, schedule, and cost each have specific methodologies for ensuring projects stay on target, are completed within the projected timeframe, and remain within budget.

Basic project management focuses on the creating a solid plan and executing it. This includes analyzing business drivers and stakeholder expectations, in addition to the identification and definition of the current challenges and future goals. However, many KM efforts fail due to the lack of a *detailed project plan*. It is common for KM practitioners to discuss strategies for their efforts, such as portal/website strategies or content and document management strategies. However, these strategies often lack the specific and documented components needed to successfully manage the effort.

It is especially important to the success of a KM project to design for the user. Although KM efforts are often initiated to address the needs of consumers or audiences, they often fail to engage users and formally document *project requirements*. PPC recommends involving users and documenting requirements in a formal structure that provides the ability to map back to the business need. This can be done by creating high level and detailed level requirements and cataloging and tracking them throughout the project using a *requirements traceability matrix*. These simple PM practices help prevent derailment and increase the likelihood of project success.



Many KM efforts fail for lack of a detailed project plan and documented project requirements.



**Apply the “Triple Constraint” for
successful Knowledge Management.**

Most KM project teams understand that the process of defining and analyzing the current state of an application, system, or process, enables them to identify the challenges associated with it. They also understand that this process helps drive the definition of the target, or future state. However, project teams often focus on the design of a specific system, application, or process and then fail to identify all of the details and tasks that go into implementation. While it is important to identify goals and targets, project roadmaps and other visuals often take the place of detailed *project plans and schedules* and lead to misunderstanding of specific project tasks and activities. From these miscommunications, arise issues with scope clarity and the inability to map back to a solid plan.

To address these miscommunications, developing a *standard work breakdown structure (WBS)* will enable the project team to understand the work that needs to be done, and sequencing these work packages into a detailed project



schedule will enable the team to create a *network logic diagram* and baselined schedule. This schedule will be used as an artifact to track the state and health of the project by managing targeted milestones and product delivery. This allows for a better understanding and tracking of the scope, schedule, and cost of the project.

Phase Three: Execution – Implementation

Most of the common risks and issues that arise during the implementation/execution phase of KM projects can, and should be, mitigated during the planning phase. However, depending on the type of project and associated methodology, there are standard PM best practices that can be applied to ensure a smooth implementation. The implementation/execution phase begins with the execution of the project plan.

Because of the broad nature of knowledge management, KM projects often experience scope creep during implementation. For example, if a flaw is identified in the design of a content management system during implementation, there may be additional time and costs associated with remediation. Determining responsibility and accountability can put a strain on relationships within the project team that could derail the project. From a PM perspective, during the execution phase, project managers are in charge of executing the work defined in the project plan. Any change requests that arise should be approved by a formal change control board. The members of this board and its associated responsibilities should be determined during the planning stage. For example, at a weekly customer stakeholder meeting, PPC was told to assemble training slides targeted for three different user groups at the end of the project. While this training function had been included in PPC's scope of work at the initiation of the effort, a subsequent decision was made that, due to budget constraints, the customer would produce the training materials in-house. Although we willingly reviewed the slides for content, correctness, and clarity, we were not able to produce the materials because the decision to remove training from the current project scope was approved through a change control process, and documented appropriately. Because the customer had a change in leadership during the effort, the change control board's documentation was critical in explaining why training was cut, who had been assigned the in-house responsibility, and the strategy that had been formulated.

Since KM projects can be broad reaching and affect many other projects, programs, or systems within an organization, continuous communication, another standard project management theme, is important. Another example, the iterative design, development, and deployment of KM information systems are a commonly used and understood methodology. Many organizations in the public and private sectors have already transitioned their standard waterfall development cycles to a more iterative approach, or are in the process of doing so. While these iterative cycles are commonly accepted and practiced with KM projects, the formal distribution of information to project stakeholders may be easily lost or minimized. As the project is implemented, ensuring continuous communication with the project stakeholders during planned key milestones as the project plan is executed is key to success.

Phase Four: Controlling and Monitoring – Analytic Application

Several KM systems enable users to find, access, and share information, in addition to providing the ability for an organization to function more efficiently by integrating people, processes, and technology. In order to maximize the benefits of these systems, management must understand what content or functionality is being commonly used. Taking portals for example, portal analytics provide information on most frequently used documents, most viewed communities, number of user logins, and the average amount of time each user spends within in the portal. Portal utilization can be managed by collecting and analyzing usage data analytics. This simple method for monitoring system usage can be applied at the project level as well. Many organizations are not using analytic methodologies or control and monitoring methodologies to report on the health of the project, therefore, missing opportunities to address needs based on interaction.

There are two major types of analytics that can be used within organizations: passive and active. Passive analytics pertain more to usage monitoring and reporting on what system functionality or content is being used and what may be causing user challenges – tracking usage data to draw conclusions. Active analytics relies more on surveys and interviews – engaging the users to find answers. These feedback mechanisms may require additional detail directly from the users. From an information management system, organizations can either integrate analytics into an executive information dashboard or provide



analytic components that display specific information, such as most frequently used documents. However, from a project management perspective, quality controls that verify and control scope, report on performance, and monitor risks and issues will enable you to better control the outcomes of projects. Additionally, performing earned value management efforts will enable an organization to understand the health of their projects through the use of weighted milestones, percentages complete, and percentages to complete.

Phase Five: Closing – Knowledge Transfer

Closing a KM project is often hard to do because most KM initiatives are ever evolving and continuously improving. This can cause issues when finalizing KM projects. For example, due to the dynamic and adaptive nature of websites, portals, and content management systems, it is often difficult to understand when the project is and/or should be complete. It seems there is always more that can be done. These issues are in large part caused by the lack of understanding and stakeholder baselining in the differences between projects with a specific target to reach and end state with a start and finish date, and programs which are ongoing efforts that may include multiple projects.

These concerns can be addressed using standard project closeout activities that include a formal *lessons learned* process. This process should begin during the initiation phase of the project and managed throughout the course of the effort. This practice provides a formal and documented vehicle for capturing both positive and challenging components of the project. Moreover, this process should be conducted by the project team and signed off by all team members at project completion to ensure all perspectives are captured. While knowledge transfer is a necessary and common practice at the closeout of most KM projects, instituting lessons learned at the beginning of the effort will ensure acceptance by all parties, integrity is managed throughout the project, and knowledge is transferred and stored for future improvements.



**Ensure continuous knowledge transfer -
document lessons learned**

Conclusion

There are many areas that should be highlighted when applying project management methodologies to KM initiatives. The first is to understand that communication, quality, and stakeholder expectations should be managed throughout the course of any project. In addition, most of the common issues experienced with KM projects, such as lack of communication, scope challenges, lack of understanding the entire effort and strategic vision, can often be addressed by proper planning. Finally, it is important to recognize the broad nature of Knowledge Management initiatives and that thoughtfully applying basic project management methodologies can make the difference between a KM project that is successful and one that fails.



About Project Performance Corporation

Project Performance Corporation (PPC), part of the AEA group, is a management consulting firm offering world leading expertise in environmental and IT and management solutions for top government, non-profit, and private sector decision makers worldwide. At PPC, we solve a wide variety of problems for clients by helping them improve the way their organizations function. From leading-edge solutions for optimizing the use of information and institutional knowledge, to highly effective solutions to address energy usage and climate change, we specialize in delivering effective, reliable answers to the most complex challenges. At the heart of it all are our people — innovative thinkers well versed in business processes and drivers, and an unequalled focus on delivering quality products and services.

About the Author

Nick Nylund is an expert in the design and development of intuitive applications and systems for clients in both government and commercial industries. He is well versed in portal and web technologies, providing content strategies for improving end user experiences. Mr. Nylund is expert in content management and governance practices with both the creation of policy and procedures, as well as communication and outreach activities. He has over eight years of experience in applying program management and life cycle management methodologies through extensive project planning, scheduling, and costing. He is skilled in improving IT process management and ensuring that IT plans align with organizational strategic vision. Mr. Nylund is also experienced in budget formulation and execution, including critical analysis on proposed IT investments and their overall value to the organization, such as the return on investment, performance measures, and effective risk management. He also has experience with Office of Management and Budget (OMB) Circular A-11 with Exhibit 300 development. Mr. Nylund is a certified PMP.

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