

# PROJECT-BASED KNOWLEDGE MANAGEMENT

By Charles A. Tryon  
*Tryon and Associates*  
and  
Suliman Hawamdeh, Ph.D.  
*University of Oklahoma*

For several years, organizations have recognized a growing gap between what they need to know and the knowledge they possess. The emerging discipline of Knowledge Management has made this an active discussion for most executives plotting the future of their organizations. KM, however, has struggled to attract the full endorsement of business leaders. Senior management is reluctant to invest limited funds and time in a Knowledge Management initiative until they can see direct, tangible benefit from their investment.

While there are many definitions and strategies for Knowledge Management, one of the most obvious already exists. We may capture vital organizational knowledge using the natural by-products of a current organizational activity ... *projects*.

Projects are the life-blood to any thriving organization. Projects are how modern organizations create new products or services for their external customers and meet the needs of internal business processes. Major revisions to current products or services require projects. Projects are also the mechanism used to retire products and services when they are no longer part of the corporate offerings.

***Project-Based Knowledge Management*** leverages the natural processes and by-products of two prominent project-oriented disciplines, ***Requirements Management*** and ***Project Management***. These two established disciplines hold the keys to a fresh and natural perspective on Knowledge Management. And they already exist in most modern organizations.

Limited organizational vision and confusing, contradictory priorities often compromise formal attempts at Requirements Management and Project Management so severely that the knowledge they can offer never materializes. The rush to meet arbitrary, unreasonable schedules renders any potential project knowledge ignored and unreliable. It is time for that to change.

## **REQUIREMENTS MANAGEMENT**

Requirements Management is a formal strategy to store and transition well-defined, solution neutral needs into some type of solution ... while maintaining the ability to trace from the statement of needs to the solution or from the solution to the need.

Requirements take on many forms including written documents, engineering drawings, technical schematics, specifications, test criteria and even physical products. Any organizational process that begins with an abstract concept and terminates with a tangible solution is a candidate for Requirements Management.

The success of projects charged with building new products or services is

dependent on Requirements Management. Bad requirements gathering will ultimately produce a bad final outcome. Garbage in, garbage out. Without a valid understanding of needs, the best an organization can hope for is a brilliant solution to the wrong problem.

Because of this reality, most projects begin with some form of requirements work. Using names like *architectural engineering, research, business analysis, systems analysis, conceptual design, engineering study, discovery* or *requirements gathering*, early project activities focus on learning about organizational needs and then transforming those needs into a workable solution.

The reality of these efforts, however, often falls short of the intended goal. Requirements gathering is frequently considered optional by senior management and curtailed long before the process is complete.

Yet these requirements are the very heart of organizational knowledge. The failure to fully define requirements means that vital knowledge remains undiscovered and undocumented. Projects offer the ideal time and place to capture the data, information and decision criteria needed to support critical business functions.

Even when requirements are discovered during a project, most are not *captured* in any meaningful way. They may be placed in a 3-ring binder of documentation, rolled up and stored on a shelf or retained somewhere on a shared drive. Too frequently, this critical knowledge asset is put away on a dusty physical or electronic shelf.

Organizational knowledge is dynamic. It is active and constantly changing. As a result, all forms of requirements should be detailed, captured and then regularly updated.

Formal ***product repositories*** must be created to capture a variety of information related to an organization's products and services. All relevant knowledge components should be carefully recorded in these repositories and maintained over the life of the products and services.

This organizational knowledge will enable rapid response to future market or technology shifts without having to "rediscover" existing or previous information. These product repositories should capture the *knowing that* and *knowing how* information so critical to the total enterprise.

For this to happen, an enterprise-level Knowledge Retention Policy should identify the types of knowledge-bearing requirements that should be kept by all projects. Failure to set this standard will result in incomplete and inconsistent by-products from active projects. (For more information on a Knowledge Retention Policy, see "Bridging the Knowledge Gap" on the *Tryon and Associates* website.)

## **PROJECT MANAGEMENT**

No topic has captured the attention of corporate leaders over the past few years more than Project Management. Yet few are realizing the true benefit this discipline offers.

*Modern* Project Management is the corporate act of planning, leading, organizing and controlling the work required to accomplish the objectives of a single-time effort. This significant project type is performed only once within a reasonable

period of time. Single-time efforts are the organizational vehicle to create something new, one time. If a similar project is launched by an organization, even if only a few months or years later, so much will have changed, it will again be a single-time effort.

Project Management defines how an organization chooses to conduct project work. That, in itself, is organizational knowledge. Test yourself. Can you, this moment, locate a document that describes to a new employee or customer how you will manage your projects? Does this information explain a repeatable *Project Life-Cycle* that is independent from any specific product development strategy? Does it explain the roles and responsibilities that are crucial to the success of your projects? Does it identify the tactical planning techniques that will be used to create meaningful schedules? Are the simple steps required to create a defensible Project Plan included in this information? Are templates for project deliverables available or will each Project Manager be forced to reinvent them on each project?

Positive answers to these critical questions yields a ***Project Management Framework***. This information should be a core resource for every project performed by your organization. In addition to reducing the effort of performing a project, this organizational knowledge will also produce new organizational knowledge from each project.

A ***project repository*** should contain Project Charters that clearly explain the goals, objectives, scope and intent of each project. All of the Project Plan components should be kept along with status reports, issues logs and change requests.

An even more significant contribution from Project Management comes at the end of each effort. Project post mortems provide a forum to identify things that were done well and pitfalls to avoid in the future. This collection of *lessons learned* and *best practices* must be captured and then shared across the organization. Failure to do so results in lost opportunities and repeating old mistakes.

While a project repository may not have the same long-term value as the product repository, it provides a central location for project information that may be accessed by any project participant. This is vital when transitioning roles on the project when the project organization changes. It also provides examples that future projects may use to guide their own efforts.

An enterprise-level Knowledge Retention Policy should identify the types of knowledge every project must contribute to the project repository. Templates for these components will promote greater consistency in the by-products used to manage a project.

### **PROJECT RELATIONSHIPS**

We cannot limit our view of organizational knowledge to components that might be retained in a project or product repository. Organizations must also recognize the value of the natural relationships that occur between people during a project. Executives see people networking as a standard business practice. Relationships between members of a project team and others in the organization cannot be ignored.

Policies, rules, data and information are obvious by-products from projects and may be captured using modern analysis techniques and current technology. There is an element of organizational knowledge,

however, that proves to be a bit more elusive. Sound judgment, or the ability to make the right decision, is one of the most complex types of organizational knowledge to capture and share.

Projects often offer a natural opportunity to identify the people who hold this type of knowledge. When learning about data, information or decision-making criteria, a project team will interview subject matter experts who make the difficult judgments that help an organization performed accurately and effectively.

These critical knowledge resources may be unable to explain all the parameters to their thought process as it is honed from years of trial and error. Knowledge Management's sole benefit may be limited to identifying who these people are and what knowledge they have.

While difficult to define, the loss of sound judgment represents one of the greatest threats to an organization's ability to function when key staff members leave. A Knowledge Retention Policy should list these areas of knowledge and then establish mentoring programs to transfer decision-making criteria to new employees.

### **CALL TO ACTION**

Wonderful examples of effective Knowledge Management many be found in most successful organizations. These examples, however, are often fragmented and isolated within the corporate structure. When new leadership takes office, these efforts are easily ignored and soon forgotten.

While Requirements Management and Project Management will not address all aspects of Knowledge Management, they contribute tangible, valuable and visible elements. To gain full value from these

project disciplines, it is critical that their contributions are not decided by the whims of a specific sub-component or era of leadership in the organization.

It is time for modern organizations to either launch a new Knowledge Management initiative or enhance one that is already underway. To do so, they should...

- Create an enterprise-level *Knowledge Retention Policy* that serves to coordinate KM activities within the organization and its projects.
- Establish Knowledge Management as a *corporate strategy* actively supported by senior executives.
- *Standardize deliverables* that contain valued organizational knowledge.
- Create an *accountability structure* to nurture Knowledge Management efforts and hold accountable those who chose to ignore it.
- Commit to creating and maintaining both *product and project repositories*.
- Facilitate and promote knowledge sharing activities within the organization.

An effective Knowledge Management strategy will allow intelligent organizations to retain and expand their base of knowledge. Only then can an organization truly thrive in the knowledge age.

Since 1981, **Chuck Tryon** has written and presented seminars on Knowledge Management, Project Management and Requirements Management to hundreds of major corporations in the United States, Canada and Europe. Thousands of project professions routinely apply his training, processes and templates to their work. Additional information on Mr. Tryon is available at [www.TryonAssoc.com](http://www.TryonAssoc.com).



**Dr. Suliman Hawamdeh** is a professor and the program coordinator of the Master of Science in Knowledge Management at the University of Oklahoma. He was the founding director of the first knowledge management program in Asia at Nanyang Technological University in Singapore. He is the author of several books on knowledge management. He is also the editor of the “Journal of Information and Knowledge Management (JIKM)” as well as the book series on “Innovation and Knowledge Management” published by World Scientific. He is the founding chair of the International Conference on Knowledge Management (ICKM). Additional information on Dr. Hawamdeh is available at [www.Hawamdeh.net](http://www.Hawamdeh.net).

