

Improve Your Agency's Project Delivery with Certified Project Managers

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INTRODUCTION

A strong project manager is the keystone to successful project delivery. While some project managers have a natural knack for the subject, project management skills can definitely be taught and all project managers can benefit from standardization. The defense, utility, and Information Technology industries have understood this for many years, while the transportation industry has traditionally been a little more reluctant to standardize its practices.

WHAT ARE PROJECTS

It is the rare transit agency that is not undergoing several, if not dozens, or hundreds of, projects concurrently. Projects are everywhere. When people hear the word "project," they normally associate it with a common subset, the capital project, which typically involves the construction or installation of infrastructure. Some capital projects can range from the very large, like NYCT's Second Avenue Subway extension, to the relatively small, such as refreshing the landscaping around an agency's facility.

In reality, however, agencies engage in many other projects that may not be recognized officially as such. Examples include implementing marketing campaign, increasing staff capabilities through a new training effort, negotiating a new labor agreement, establishing a documentation baseline, or inventorying 100% of an agency's assets. While these projects may not necessarily create new infrastructure that the agency can incorporate into its inventory, these project types share common traits with capital projects.

Broken down to its simplest definition, a project is an activity that has a scope, a beginning, and a measurable endpoint. Within the transit agency, projects are complemented by operations activities. Operations activities have a scope but are on-going, repeated processes. Running a daily bus route is an operation; adjusting bus route to accommodate a one-day visit from the President is a project. Paying employees is an operation; evaluating pay-scale equity is a project.

Performing daily backups of the agency's servers is an operation; developing a disaster recovery process is a project.

Once we are able to understand the broader view of the projects universe, it quickly becomes obvious that success of projects directly impacts an agency's ability to meet its operational mandates. Once the link between project success and operations is understood, we must now focus on findings ways to increase our capacity for projects success.

THE PROJECT MANAGER

A basic rule for getting things done is as follows – if you want something done, and preferably done right, make someone accountable for the satisfactory completion of the effort. Projects are a prime example for application of this fundamental rule. Accountability is a key factor in project success. So, who is this person that has primary accountability for completing a project? That person may go by many different titles, e.g., project engineer, or department manager, or even chump; however, the universally-accepted title is project manager.

The project manager is the singular person closest to the project's work and deliverables, with full, day-to-day accountability for the entire project, including scope, schedule, budget, and quality. The two critical phrases in the prior sentence are "singular person" and "full, day-to-day accountability." There may be other people with accountability for the entire project, including upper management and other stakeholders; however, these people should not have day-to-day accountability, otherwise the project manager's authority is both duplicated and undermined. There may be persons, such as technical and finance staff, that are closer to the project work and have day-to-day responsibilities; however, these persons should have less than full accountability for the entire project, otherwise the assigned authority is again duplicated and undermined.

That is not to say that the project manager is the only person accountable – far from it. The personal accountability of everyone involved in a project is a key

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component that drives success. The uniqueness of the project manager's position is based upon the position's location at the epicenter of the project universe; at the pinch point of the project hourglass, functioning in the space between the persons desiring the project outcome (project stakeholders) and the persons delivering the project outcome (project team).

MANAGING A PROJECT

With such a broad definition of a project, it should come as no surprise that projects come in all shapes and sizes. Projects can be easy or complex, short in duration or lasting years, pro-bono or costing billions of dollars. On smaller projects, the entire project team may consist of the project manager. On larger projects, the project team may number in the thousands and span continents.

Project teams can be localized, multi-location, or virtual. Sometimes the project team is selected by the project manager, who has full control over the team's time and effort; at the other end of the spectrum, the project manager is assigned a team and given severe constraints with respect to staff availability. The one constant remains the project manager's accountability for performance.

There are many different ways to manage a project, just as there are many different kinds of projects. Some project managers rule with an iron fist; some project managers operate with an iron fist within a velvet glove; some project managers do just fine with only a velvet glove. There is no one-size-fits-all style that ensures project success, just as there is no singularly-successful method for winning an election.

PROJECT MANAGEMENT AS A DISCIPLINE

In the absence of single roadmap for project success, some would have us believe that project management is an art-form – *que sera, sera* – just call a person project manager and see what happens. While such an approach may lead to some successes, it is certainly a risky approach and the odds would not favor success over the long haul. On an agency scale, treating project management as an art-form is no less than irresponsible. Art does not need to follow rules or timetables; art cannot be experienced or measured in process; art is done when it's done. Although there are artistic qualities to project management styles, project management is not an art-form premised upon innate abilities; project management is a discipline in much the same way as accounting and engineering are disciplines – a field of study and training

based upon methods and processes that increase the competence of its practitioner.

In the U.S., a Certified Public Accountant (CPA) has documented education and experience, and has demonstrated discipline proficiency by means of an exam administered by the American Institute of Certified Public Accountants. CPAs are bound by a code of ethics. Taking continuing education courses is requirement for license renewal.

In the U.S., a Professional Engineer (PE) has documented education and experience, and has demonstrated discipline proficiency through an exam administered by the National Council of Examiners for Engineering and Surveying. PEs are bound by a code of ethics. In most states, taking continuing education courses is requirement for license renewal.

What is the return on investment for a CPA/PE, or for the company that hires a CPA/PE? In some cases, there is a legal requirement for services by certified professionals; however, at its root, certification provides a means for consistency and risk reduction in the performance of services. The same must hold true for an agency's project managers. Given the number of projects underway at transit agencies every day, and the importance of these projects to each agency's operations, a proven methodology to improve the consistency of project delivery and reduce the risk of project failure needs to be examined. Project management certification is based upon a methodology with proven success in industries and countries throughout the world.

PROJECT MANAGEMENT PROFESSIONAL®

There are a number of project management organizations that provide certification in project management. These include the International Project Management Association's IPMA Level C® Certified Project Manager, the UK Government's PRINCE2 certification, and the Computing Technology Industry Association's Project+ certification. At this time, the most widely-accepted and fastest growing project management certification is the Project Management Professional® (PMP) certification as issued by the Project Management Institute. The PMP credential is registered against the ISO 9001:2008 standard for quality management systems, and the PMP credential scheme is accredited by ANSI against ISO 17024.

The Project Management Institute's credentialing examination is based the professional standards and guidance published in PMI's *A Guide to the Project*

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Management Body of Knowledge (PMBOK® Guide), which was just released as its fifth edition in 2013. As stated in its introduction, the *PMBOK® Guide*, “provides guideline for managing individual projects and defines project management related concepts. It also describes the project management life cycle and its related processes, as well as the project life cycle.” The primary guidance of the *PMBOK® Guide* is imparted within the framework of forty-seven project management processes that are mapped to five process groups and to ten knowledge areas.

The project management process groups categorize the forty-seven project management processes based upon their intended and resulting outputs. A proper project should encompass processes from all five groups. The five project management process groups are:

1. Initiating
2. Planning
3. Executing
4. Monitoring and Controlling
5. Closing

One point that should be internalized by transit agencies, based upon the defined process groups, is the importance of including the project manager early on in project, and more specifically, during the initiating and planning phases of the project life cycle. In fact, the Planning Process Group holds the largest number of project management process, containing twenty-four of the forty-seven processes. Can you guess which process group has the next largest number of processes? The Monitoring and Controlling Process Group has the next largest number, with eleven processes, which should help agencies better understand how the experts view the role of a project manager.

The project management process groups categorize the forty-seven project management processes based upon concepts and activities that correspond closely with a particular occupational field or area of specialization. The ten project management knowledge areas are:

1. Project Integration Management
2. Project Scope Management
3. Project Time Management
4. Project Cost Management
5. Project Quality Management
6. Project Human Resource Management
7. Project Communications Management
8. Project Risk Management
9. Project Procurement Management
10. Project Stakeholder Management

A common criticism against the use of a structured project management methodology such as defined by the *PMBOK® Guide* is that the structure is overly complex or cumbersome. This is simply not true and represents a misunderstanding or misapplication of the *PMBOK® Guide*. Unlike the process groups, which truly apply to all projects, knowledge areas do not necessarily apply to every project; although most significant projects will use aspects of all ten knowledge areas. Each project manager (with staff support as applicable) should make a determination as to whether every knowledge area applies to a given project, and would be advised to document decisions for later examination. For example, on a short-duration, single person project, Project Human Resource Management and Project Cost Management may be deemed superfluous and skipped.

The project management processes themselves provide the guidance and recommendations for the project manager and the project management team. This paper does not attempt to provide an overview of the individual processes; readers are left to peruse the *PMBOK® Guide* on their own. It is these individual processes, with titles such as Validate Scope, Sequence Activities, and Close Procurements, that give the certified project manager the tools to facilitate and achieve project performance improvements.

IMPROVED PROJECT DELIVERY

With the utilization of certified project managers, such as Project Management Professionals, agencies become the beneficiaries of improved project delivery.

One of the first improvements will be the recognition of project complexity, no matter the size or scope of the project. At first glance, this seems to be counter-intuitive, how can complexity improve performance? Complexity itself is not the improvement; rather, it is the recognition of this complexity that characterizes the improvement. Whether the complexity is recognized, it is still present; creating risks; impacting project scopes, budgets, and schedule; and forcing reactive management. Once the project managers are able to recognize and quantify the complexities, then, and only then, can the issues be addressed in a proactive manner.

Certified project managers understand that project management is not merely a series of management tasks. As described in the *PMBOK® Guide*, project management is actually comprised of a significant number of planning and monitoring tasks. As an agency's projects undergo structured planning and monitoring efforts, these projects

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will become proactively controlled and less risky with fewer surprises.

Certified project managers provide agencies, and potentially the transit industry, with consistent processes. Process improvement requires repeatable methods. If every job is managed differently, it is very difficult to measure and improve performance. Standardized project management processes and terminology, such as those taught under the *PMBOK® Guide*, brings consistency on multiple levels.

At the personal level, consistent use of processes facilitates a project manager's ability to observe, measure, and evaluate their own progress. A project manager can learn and grow through these observations, and the common standards provide the tools needed to seek out lessons from others.

At the agency level, consistency provides an opportunity for measurement across departments, and facilitates the introduction of best practices agency-wide. As a result, risk reduction becomes achievable not only on a project-by-project basis, but also at the level of the agency's entire portfolio of projects.

Beyond the agency level, project management consistency can reap benefits. The transit industry is well-known for being an insular group of professionals; professionals that seem to cross paths regularly whether through professional activities such as APTA or TRB, through consultant and contractor connections, or through job progressions. All of these professional interactions provide an industry-wide opportunity for project management knowledge exchanges and lessons learned. However, it is only optimized if there is a common language spoken; certified project managers bring that common language to the table. The FTA plays an important role in encouraging and overseeing project management methodologies; as each entity moves closer towards a common understand of best practices, we can all be beneficiaries.

The benefits go even beyond the industry level. Project management process and best practices have been implemented, tested, and validated across industries. These experiences can be leveraged directly back to public transportation as long as we have the tools necessary to understand and scale the lessons. Certified project managers bring that know-how.

One last benefit that certified project managers bring the broad-based, holistic understanding of project life-cycles and requirements necessary to integrate their

methods with the other major certified disciplines required to deliver projects. For the delivery-based disciplines such as planning (AICP certification), design (PE/AIA certification), and construction management (CMAA certification), the certified project manager is prepared to execute within all of those individual phases. For the process-based disciplines such as systems engineering (CSEP certification) and quality (ISO certification), the certified project manager can match commonalities and leverage the strengths of each discipline with the resulting whole being much more than simply the sum of its parts.

AGENCY EXPERIENCE

Project management certification is being advanced at transit agencies to some degree. Some agencies encourage their existing project managers to pursue certification, while other agencies are adding a PMP certification to the desired recruiting requirements. At this point, however, there does not appear to be any industry-wide advocacy to implement a certification program.

In an effort to gather anecdotal information on progress and perceptions, a short survey was developed to obtain feedback from certified project managers that are working within the transit public sector. Based upon the responses, there appears to be some results and trends forming. The five questions asked were:

1. Has project management certification improved your professional performance?
2. Has project management certification improved project delivery within your organization?
3. What other benefits has your organization achieved through project management certification?
4. What areas within your organization already benefit, or would benefit, from project management certification?
5. Do you believe project management certification is merely a passing fad or here to stay?

Regarding individual improvements, it is apparent from the survey that obtaining project management certification provides immediate results. All respondents indicated that the certification improved their performance. In addition to providing improvements to the processes needed to deliver the individual projects, the certified project managers noticed improvements in their confidence and leadership skills. The project managers recognize that the certification has given them the tools and solid framework needed to grow their capabilities. The project managers better understood the rationale for

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participation during the critical planning stages of the project, and in some cases, were newly equipped with structured arguments to influence their organization and help upper management understand the potential improvements to be realized through the use of formal, disciplined processes.

Regarding the realization of overall organizational delivery improvements, the results are not always immediately achievable. Most transit agencies have used the same project management methods for decades, and the addition of a few certified project managers will not sway an organization overnight. The project managers need to be complemented with knowledgeable upper management, or alternatively, the time needs to be taken to make the argument through gradual improvements on individual projects coupled with formal efforts to help management understand the return on investment. Once sufficient project managers are certified and proven results are documented, an agency will likely reach a tipping point wherein the benefits become self-evident.

Beyond full-scale delivery improvements, other benefits were recognized for the organizations. One immediate organizational benefit that was called out repeatedly by the respondents was the establishment of a common language and guidelines for delivering project. Departmental credibility and respect was an important result from the larger certification efforts at agencies. It was further noted that credibility and performance increased the organization's ability to recruit additional staff. The credentialed staff establishes a level of professionalism for interactions with peer agencies and federal agencies.

The agencies recognize that the lessons contained with the certification process apply to many others beyond the traditional project management office. It was noted that groups such as engineering, IT, grants administration, and even senior management would benefit from project management education or certification activities.

Respondents universally believe that project management certification is here to stay. It was noted that the elegance of certification lies in the processes being frameworks rather than absolutes. The certification imparts knowledge that project managers use to determine which of the recommended processes apply to individual projects, whether common or unique. Some project managers are predicting that certification will become a requirement at some organizations.

CONCLUSION

With the ever-shrinking funds available for our industry and the needed projects, agencies must become even better at managing their scarce resources. With the numerous projects underway at transit agencies, even incremental project delivery improvements will net significant gains. Projects start, execute and deliver based upon the expertise of the project manager. Agencies need to upgrade their project management capabilities. It is time to embrace project management as a discipline; a complex discipline that requires dedicated and certified professionals.

Agencies ready to accept this reality should adopt the framework of the Project Management Institute and move toward having all their project managers certified as Project Management Professionals. A project manager certified as a PMP is trained in the common processes of the Project Management Body of Knowledge (PMBOK). PMPs are able to utilize standard terminology to measure and communicate their project's progress. PMPs can integrate other critical professional disciplines into a holistic framework that is greater than the sum of its parts.

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