Managing Small Projects: The Critical Steps

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Industry Article

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Introduction

Small projects have unique challenges over larger ones. Because they're small, it's tempting to skip the planning process and start executing the work. This phenomenon is especially true if projects perform tasks similar to previous work, which in turn leads to a natural tendency to skip planning and to start doing the work. Then, essential steps are sometimes omitted, done out of order, or done later than desired. Likewise, costly mistakes can occur when risks are missed by executing too soon. A small project that isn't planned enough can also ignore critical stakeholders, causing both resentment and rework.

Complicating the issue are project management methodologies and frameworks designed for large projects. Using such frameworks for small efforts is cumbersome and unnecessary. What is needed is a method that focuses on the essential steps and doesn't waste time on overkill.

The following outlines the essential ingredients to managing small projects and how to successfully deliver project results every time. Our proven framework, and the critical steps for managing small projects combines years of practical experience with the core processes of the Project Management Institute's *Project Management Body of Knowledge (PMBOK®Guide).*

The paper presents several issues related to managing small projects, as well as the framework. Several practical project templates for managing small projects are introduced and explained as to how they work with the critical steps of the framework. The intent is to help people deliver project results more quickly, that better achieve desired objectives, and do so with less stress.

The major challenges we've seen in managing small projects are:

1. First, being able to recognize work that is really a project – and conversely to distinguish other kinds of work from project work, and manage it accordingly
2. The lack of time taken to plan small projects when they are recognized as such, and to do an appropriate *amount* of planning (as opposed to the level needed for larger ones),
3. Having the will or determination to follow a plan once it's created for small projects, and
4. Being disciplined enough to control and to track the project – and to see it through to completion.

Recognizing Small Projects

With the rush of day-to-day business in *any* sized company, it's often difficult to separate project work from daily operations or regular, ongoing work. But, projects or potential projects exist in *all* areas of a small or large business, and project work will suffer unless it's identified and prioritized. Several issues surround the need for recognizing small projects:

- **Lack of time to think and plan.** When work that is project work in nature gets executed as a collection of tasks without proper planning, there are several consequences. Organizations incur higher costs, deadlines get missed, staff and management get frustrated, and other predictable ill effects.
- **Unrealistic deadlines** exist for all projects, but it seems especially so for small ones. Managers or internal customers frequently say "just do this" or "just do that" and don't think through the consequences. People may not realize the word "just" is a 4-letter word, and is a sign that a project is being instigated.
- **Communication neglect.** Small projects usually have less communication in them and fewer status updates than their larger brethren. What often results is that sponsors then frequently forget they requested an initiative, which in turn results in wasted effort because the work goes for naught.
- **Sponsor disengagement.** Sponsors quickly disengage on smaller projects if the efforts are not managed. Both neglecting communication and not engaging the sponsor are death sentences for small projects. According to recent research (see Standish Group report, 2001), the top factors for project success are executive support and user involvement, which applies equally to large and small projects alike.
- **Mixing operational and project work**. People also have a tendency to meld project work with ongoing support or maintenance. Project work usually suffers because it is less urgent than operational work. In a related fashion, projects then never seem to end. Not closing projects has several consequences, including a) the work to maintain a product gets confused with project work that built it, b) missing capturing important lessons learned, and c) lack of team-building opportunities. Project closeout is just as important for small projects as larger ones.

Two small project examples will help illustrate some of the issues addressed here.

- Internet Service Provider Project

An example of not recognizing an endeavor for a project was our company's need to obtain a new Internet Service Provider (ISP). Our previous one had gone bankrupt, and informed us that they would be terminating service in a month. This was not welcome news, of course, and sent our operations manager into "react mode," quickly thinking of what to do and then doing it. She is the type of person who thrives on chaos, and this was just another chaotic event. As her boss, I urged her to act quickly to get us another ISP. I had visions of our web access disappearing along with all our emails. We had to act quickly!

What's wrong with this approach? Several things, actually. We did not recognize this effort was a project. The tight, externally-imposed deadline put us into a reactive mode, short-circuiting our planning. The reduced planning caused us several surprises along the way, such as being without email for a weekend, and one of our domain names didn't accept emails for a week. It turned out that the old ISP shut down earlier than promised, a risk we had not addressed because of our haste. Plus, it was stressful on the whole *company*, and costly due to overtime by our network technician and potential loss of business. I'm sure every organization has had "projects" like this.

- Bank Transfer Project

An example of successfully recognizing work as a project involved transferring our company's bank accounts to a new bank and setting up a new deposit service. It helped that we were able to set an internal deadline, which gave us adequate took the time to plan properly. The planning we did allowed us to analyze risks and to anticipate problems with transferring the bank accounts. We set up risk mitigation plans which we fortunately never had to use, and the project ended smoothly and quietly, with no disruptions in service.

Lessons Learned

What did we learn from these two projects?

Not Recognizing a Project	Recognizing a Project
■ No identified PM or sponsor meant unclear roles and responsibilities, leading to crucial steps skipped	■ Had a formal PM and a project plan, which led to complete planning of tasks
■ Time "saved" by not planning actually led to greater work and costly delays in service	■ Time spent planning was not burdensome and uncovered requirements and tasks
■ Risks were missed that were costly	■ Identified major risks and planned for them, adding steps that ensured success
■ Being surprised and doing rework was stressful and felt "hard"	■ Lack of surprises and executing the plan made it seem "easy"

Exhibit 1: Summary of lessons learned from recognizing and not recognizing small projects

Processes vs. Projects vs. Products

Organizations get work done through projects or processes. Both efforts work at initially building a product, in the case of projects, or recreating them, done through processes. Exhibit 2 shows the relationship between these key elements.

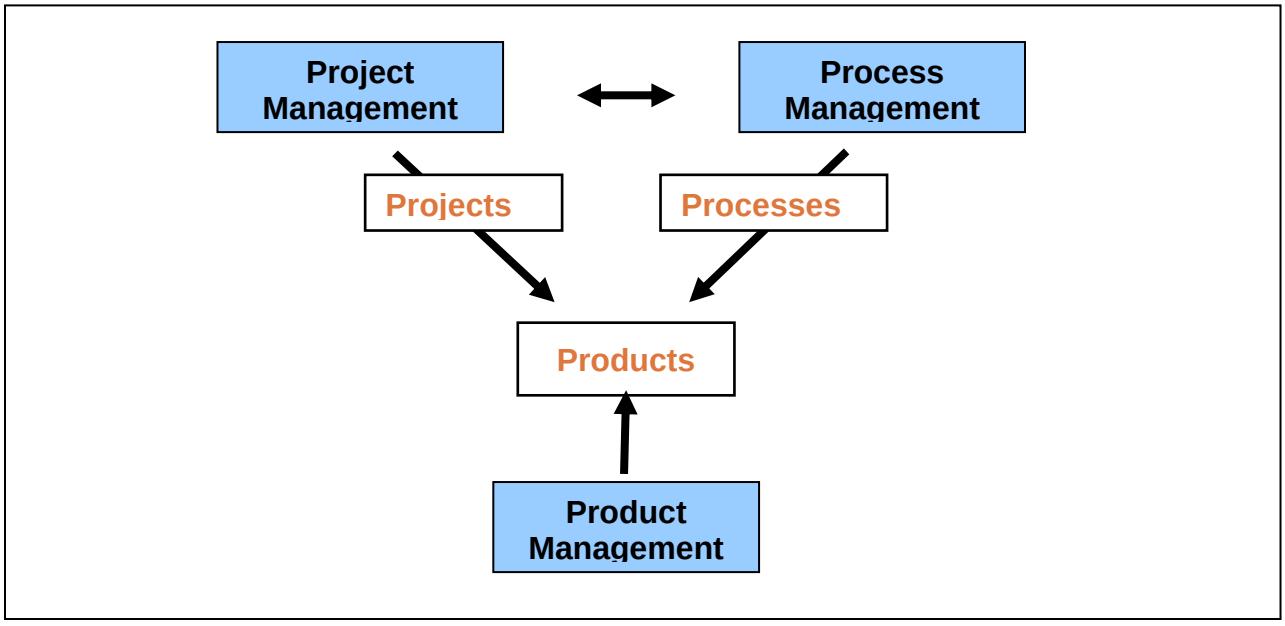

Exhibit 2: The productivity triangle: projects, processes and products

- **Business processes** or procedures are pre-defined sets of steps to accomplish some business purpose. The components tend to be repetitive and repeatable between performers. And they have certain goals that "drive" them, like efficiency and accuracy.
- **Products**, the second corner of the triangle, are things that are "built." They are the output or deliverable of a company, or how an organization provides value. Products might be tangible, (as in manufactured products) or intangible (e.g., services or software). Inventing or creating products tends to be a one-time event (a project). Whereas the ongoing production or re-creating of a product is a process.
- **Projects**, according to the *PMBOK® Guide*, are unique undertakings with a discreet beginning and end, that produce something new and valuable, and need adequate resources to succeed. Projects can and should be managed using a generic *project management* methodology separate from the *product management* methodology.

So, what does this all have to do with managing small projects?

First, a critical and not trivial issue in managing work effectively as small projects is simply to recognize them. One common reason for this phenomenon is that small project work is often intermingled with and mistaken for ongoing operational processes. The ISP example above illustrates this problem. The need to select a new ISP (the project) was mistaken for just another aspect of maintaining a web site and email access (the process).

This phenomenon also leads to a common complaint about small projects going on and on and on. If projects are not identified and separated from ongoing work, it is no accident that they appear to never end. And, when project work *is* identified for building of new products, the product management processes often take over, and a formal project management methodology is frequently ignored or intermingled with the product management one.

Roles and Responsibilities

Once a project effort is identified and before planning starts, a critical step in effectively managing small projects is to formally assign roles and responsibilities for them. That is sometimes hard, since people who are not used to being project managers are often reluctant to take on that role or are already overly busy with their normal operational or other work. But, the benefits heavily outweigh the disadvantages. Exhibit 3 summarizes the key roles for typical small projects.

Role	Major Functions	Typically Performed by
Sponsor	Funding, direction	Officers
		Directors
		Managers
Project Manager	Manage project,	Anyone
	Do project tasks	
Team Members	Do project tasks	Internal Staff
		Contractors
		Interns
Key Customers	Provide requirements	Internal staff

Exhibit 3: Roles/Responsibilities on Small Projects

The key roles as with any project are the sponsor and project manager. As stated previously, executive support and user involvement are the major contributors towards project success according to one study. The same study also cited an experienced project manager as another critical factor. (see Standish Report, 2001):

> "Lack of executive support has replaced user involvement as the number one cause of project failure. Without a staunch project champion with a solid business vision, projects can drift into a technological or political abyss. Project stakeholders must create business value by improving customer service, communicating a clear business plan and delivering a competitive advantage."

It would stand to reason, then, that the mere act of formally designating a project sponsor and project manager to a small project would contribute to its success. Yet, much project work gets completed without a formal PM which can often cause projects to be delayed or cancelled. The same Standish Group study found that for all "successful" projects, 97% of them had a formal project manager. Of the so-called "challenged" projects in the study, only 79% had Project Managers assigned. (see Standish Report, 2001).

- Example: our company recently completed a major redesign to our web site. It was a substantial undertaking, and we gave what we thought was good visibility and support. However, due to budgetary constraints, we had to use a part-time project manager. When our first project manager got a new job and couldn't continue, we changed project managers, and again had one part-time. As sponsors, the authors were also busy and were not exactly "engaged" in the project. It was no wonder the project stalled out, lost momentum, and was slowly withering away. Finally, we realized the trouble, and engaged ourselves again. We showed more interest and support for the project, held the project manager accountable for the project results, and the project got back on track.

Dr. Paul Dorsey writing in the InterNETalia Forum (see Dorsey article, 2003) in his article called "Top 10 Reasons Why Systems Projects Fail," says "There do seem to be three factors that all successful projects have in common. Each of these factors is key to any project's success. Each project can be viewed as a tripod. All three legs must be in place for the tripod to stand sturdily. In a systems project, these "legs" or critical success factors consist of the following:

- Top management support,
- A sound methodology,
- Solid technical leadership by someone who has successfully completed a similar project.

Without each of these solidly in place, the tripod will topple and the project will fail." (Dorsey, 2003)

It is clear, then, that defining clear roles for small projects is as important on small projects as larger ones. What about other issues that differentiate small and larger projects?

Small vs. Large Projects

If work endeavors are recognized as projects, what differentiates small projects from larger ones? Here is a summary of some of the ways in which large and small projects differ.

Dimension \ Size		Medium-Large	Small
Time	Number of hours	example1: ≥ 1000 hours example2: > 9 months	< 1000 hours ≤ 9 months
Budget	Dollars	example1: ≥ $100,000 example2: ≥ $20,000	< $100,000 < $20,000
Risks	Number or type	example1: "sizable" risks example2: any risks	"low-moderate" risks no risks
Stakeholders	Number or type	example1: > 2 example2: Director level or above	1 or 2 manager level or below
Visibility	Level	Typically high	Often indistinguishable from ongoing work
Formality Level	Sponsor, PM, team	Named sponsor, PM, team	Absent/informal sponsor/PM/team 1 person project teams

Exhibit 4: Dimensions used to Differentiate Small Projects from Larger Ones

When is Formal Planning Not Appropriate for Small Efforts?

This paper has so far dealt with the need for formalizing project planning for small projects. To summarize the major points, research and experience show that formal planning and control is most appropriate in these cases:

1) For work that requires stakeholder requirements,
2) Unique undertakings (which usually involves stakeholder requirements), and
3) Work that puts an organization at some risk and for which planning would help mitigate that risk.

One can conclude that if the risks aren't high enough or have enough impact, then the time and expense of formal planning isn't worth the benefits. Or, project management is not needed if requirements are not needed, and the work can be performed according to previously gathered requirements.

- Example: if an organization is audited by its Worker's Compensation insurance agency, the risks inherent in performing the audit aren't high. The risks born of setting up contractors, hiring employees, etc. have already been expended. So, by the time of the audit, the risks should be minimal and it's not worth the effort setting up a project plan. The organization should appropriately respond to the audit and provide the information called for, but a formal project plan and execution are not appropriate.

A project is needed, now what?

Once the need for formal project management on a small project is recognized and desired, the important next step is to begin formal planning. As stated earlier, though, project management frameworks designed for large projects are often cumbersome and counter-productive. A small project can be planned, executed and controlled with an appropriate level of process that focuses on the essential steps that add value.

Our own company has made considerable progress in employing a suitable small project framework. After numerous struggles like the ISP example cited earlier, we made a concerted effort to adopt a project management approach of our own. We started with clarifying our corporate vision and strategy. It helped us immensely to prioritize projects, which is just as important in a small company as in a larger one.

Now when we decide to take on new projects, we work to link them to the strategic vision. And, if we have trouble doing that, then the project isn't a good fit. On the other hand, potential projects may be a stretch for us and not what we "normally" do, But, if it fits our vision, we are more likely to try it, such as responding to customer requests for new products.

Framework for Managing Small Projects

Now let's look at a practical approach, grounded in a Project Management Institute (PMI®) - based framework, for planning and executing small projects. Adopting this method for managing small projects was an important ingredient in our evolution to becoming a "projectized" organization.

Starting a few years ago, our company began using a formal project planning template that has helped us significantly to plan and manage our projects. After we clarified our vision and mission, and decided to become a "projectized" organization (and not just how to teach others how to do that!), a formal planning process and various templates were natural outgrowths. Both were based on several elements from PMI's *PMBOK® Guide*.

We adapted PMI's framework to this "life cycle" and supporting documents, with the intention of using it for all projects of approximately 25-250 hours. Many of our small projects are in the 40-80 hour range. For projects longer than 200-300 hours, we use a more formal planning process.

A big advantage of our templates for small projects is that they are short and stay focused on the major aspects of project management. We constructed them to be simple, both to minimize training and increase likelihood of people adopting it.

Another huge advantage of using our templates is that they *work*. The projects we or our clients have done using it – like the Bank Transfer project related earlier – have been much more successful than those without it – like the ISP project.

Steps
Once you've identified work that should be managed as a project, now it's time to start planning and executing the project. Our method for managing small projects involves 5 basic steps. It's derived from our own experience and based on the *A Guide to the Project Management Institute's Body of Knowledge*, called the *PMBOK® Guide* for short. The five steps are project:

1. Sanctioning.
2. Scope Definition.
3. Scheduling and Estimating.
4. Status Reporting/Executing.
5. Success – Closing the project.

1. Project Sanctioning
To be successful, all projects need to be sponsored and supported. The project sponsor owns it, and must approve its deliverables. Without this formal sanctioning of a project, it may be doomed to failure. The #1 contributor to project success, according to a recent Standish Group Report (2001), is executive support. User involvement, experienced project managers, clear business objectives, and minimized scope are close behind as factors of successful projects.

Executive support for a project is documented through a project charter. A charter sanctions the project, and outlines what the sponsor expects the project to produce. It's meant to be a business document, not a technical one, and is designed to be short. Ideally, the sponsor should create it, but, minimally, they should sign off on it.

As frequent project sponsors ourselves, we have found that slowing down long enough to create a charter forces executives to think through the need and vision for a project. Additionally, it often stops many a "good idea" from being delegated as a small project and forces the sponsor to justify the business need for the project. The graveyard of abandoned projects often comes from those good ideas that weren't thought through well enough, and the instigator has gone on to the next "big idea."

2. Scope Definition
The next step in managing a small project, and a natural follow-on to sanctioning it, is defining the scope. The scope statement defines the project's:

- business issues and their impact,
- objectives (what the project should accomplish for the business), and
- deliverables (including features in and out of scope).

In other words, it defines what is "in scope" for the project. The sponsor signs off on this document, too, and commits to it. Sponsors are responsible for and need to make the decisions about the extent of the project, while project managers are responsible for planning the project and reporting against the plan. It's a distinction the authors as project managers have learned the hard way: it's easy for sponsors to abdicate and make project managers responsible for scope decisions, and then blame the PM for expanding the scope and missing deadlines.

Another way to think about the scope is to think about it as the project manager's answer to the sponsor's charter. The scope statement interprets the business need and how the project will solve it. If it's it done right, the sponsor can use it to verify if and how their vision will be carried out through the project. We use a simple template for the scope statement and combine it with the rest of the project plan for simplicity.

3. Scheduling and Estimating
Before starting a project, you also need to estimate how long it will take to accomplish the project objectives. For small projects, we suggest taking each deliverable and breaking it down to determine the tasks needed to produce each one. The resulting list of tasks is called a Work Breakdown Structure (WBS). The WBS helps you plan all the necessary work, and only the necessary work needed to meet the project objectives. It's an essential tool for any size project. Breaking projects into smaller tasks makes it easier to estimate the time needed to perform the work, and it can be rolled up into an overall project estimate.

The project schedule guides the flow of work, to ensure things are done in the right order. Tasks for the schedule come from the WBS, and allow sequencing work so that:

- Tasks will be done in the right sequence, reducing delays,
- Tasks with no dependencies can be done in parallel with other project work, shortening the schedule, and
- The longest sequence of tasks (called the "critical path") will dictate how long the project will take.

Tools like Microsoft Project® provide valuable assistance in estimating and scheduling projects and in calculating the critical path. For projects without many dependencies, simple tools like Microsoft Excel® and Microsoft Word® do a decent job of recording a schedule.

4. Status Reporting/Executing
This step is finally where project work begins. By now you've scoped out the project, divided it into deliverables, broken it into tasks, and created a schedule. It's time to work the plan.

On larger projects, experts say 90% of a project manager's time is spent communicating. For smaller projects, especially when the project manager is doing some or all of the work, the communication time is obviously much less. But, it is essential to communicate project status as it is executing. We suggest weekly status reports to the sponsor, describing:
what has been accomplished since the last report,
how much time and money have been spent,
variations from the budget or schedule, and
any project issues that have arisen.

5. Success – Closing the project
As each deliverable from the scope statement gets completed, take the opportunity to celebrate success. Of course, the sponsor should approve each deliverable first. After all deliverables have been approved, the project can be closed out. This step is important because it gives you one last chance to celebrate, and feel good about what the project has accomplished. It's a great morale boost that beats being rewarded by more work immediately!

As importantly, closing out a project is the time to do a “lessons learned” session with the project team. A “lessons learned” meeting recaps what went well on the project and what could be improved for the next one. Both are valuable for capturing knowledge acquired during the project that can be built on in the future. The lessons learned can be listed on a close report, which is also useful for summarizing project time, cost, and variances from the budget and schedule.

Putting it All Together

At first, going through the steps feels a little awkward and unnatural. After one or two efforts, though, people usually start seeing the benefits and the awkwardness disappears. Then, a scary thing starts to happen. People hold off starting on work until they get a project charter. Or, team members look forward to lessons learned sessions and celebrating the end of a successful phase or project closeout. Then, you know you’re on your way to “tech success” and can stop playing that hero role so much. You get more sleep and get to see your kids more that way, too.

For a copy of any of the documents mentioned in this article, send an email to the authors. They can be reached at elarson@watermarklearning.com or rlarson@watermarklearning.com.

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