

How many project managers do you see – on your project?

By: David L. Pells

I have always liked those puzzles where one is challenged to find hidden objects in a picture. Perhaps faces or foxes or footballs, often in a maze or jumble of images. Recently I have seen a computer game based on the same challenge, in that case, to find objects among a jumble of images in various rooms in a home – bathroom, bedroom, kitchen, garage, etc.

There is a similar puzzle on most projects – how many projects or subprojects are there and how many project managers? These questions are probably much more important than most of us realize. And the answer to this question can have significant implications related to the risks and the probability of success of any given project (or program). Taken across industries, this can also help explain the rapid rise and spread of project management and the PM profession.

In classic project management, we are taught that every project should have one and only one project manager. While this might be true, it is also highly unlikely and not necessarily entirely true. In my opinion, it is seldom true. Let me explain.

Projects and sub-projects

The larger a project is, the more likely it is to have “sub-projects”. Sub-projects are major segments or phases of a project that can and should be assigned to a single manager and managed as a project. This is especially true on major (mega) projects in the infrastructure and other sectors where projects often exceed US\$1B in total budget. On major projects, for instance, one often finds a hierarchy of projects at different levels of the work breakdown structure.

For major facilities projects, one often finds sub-projects associated with the physical structure, the subsystems inside, the equipment and processes to be employed when the facilities comes online. For major aerospace, defense, electronics and other similar projects involving a new system, there are normally major subsystems, each of which might be assigned to a single manager, then planned and managed as a project. This, in fact, will normally be true on every large project.

Projects in the Supply Chain

The supply chain on a project includes all of the contracts and procurements that will be needed to supply the products, systems and services required to complete the project. The supply chain introduces a common dilemma related to project management. That is, which is more important, contract management or project management? Of course, they are both important, but perspective is everything.

Looking down the supply chain, contracts and good contract management become critical. This is why contract management has been included in the Guide to the Project Management Body of Knowledge (PMBok Guide©) published by the Project Management Institute ® from the very beginning. Every project manager needs to be well versed in contracting types, methodologies and issues. And the larger the project, the more important this becomes, as contracts can represent major sections of the project.

Looking up the supply chain, however, the answer is different. A major contract represents a project for the contractor. Therefore, the contractor must understand and implement good project management in order to deliver all contract requirements satisfactorily, on schedule and within cost. In addition, on large contracts, it is highly likely that the contractor will need to procure products, systems and services from "sub-contractors", in which case the contract will need to implement good contract management while the sub-contractors will, in turn, need to apply project management on their sub-contracts.

At every contract/project interface, risks arise. Now going back up the supply chain to the original project team, looking down the supply chain might reveal many levels of sub-projects, contracts, sub-contracts and projects. So how many project managers do you see now on your project?

If one buys the definition of a project as a unique effort with unique end products to be delivered within specific cost, time and quality/performance specifications, then the risks can multiply rapidly by the number of projects and sub-projects involved. Good professional project management can reduce those risks. So can certain business strategies, such as the use of more off-the-shelf products and systems (one-of-a-kind products and systems by definition become projects), an approach the US government has advocated through "acquisition reform" since the 1990s.

Why should you care?

The answer to this question should be obvious, but may also depend on whether you are a company executive (project sponsor), program or portfolio manager, project manager, contractor or sub-contractor.

A company executive or project sponsor will be worried about the business case, the cost and schedule, and the risks associated with projects. Risks can be reduced with systems and systematic approaches to managing programs and projects, and through the use of more experienced and educated project managers. Selection of project managers becomes key, but project managers must be supported by effective planning, contracting, accounting and other systems.

A program or portfolio manager will be concerned about the same things as the sponsor, but will need to have a better understanding of the risks, the hierarchy of sub-projects and contracts on every project, the associated risks, and the strategies employed to reduce those risks.

Those assigned project management responsibilities must know his or her project thoroughly, including the risks associated with build/buy decisions, selection of contractors, contract terms and conditions, contractor project management status (Have they assigned a PM? Do they have PM systems and procedures? Do they know what they are doing? What's the status? Etc.) And especially, what sub-contractors are involved, each of which should be subject to the same questions and risk considerations.

Implications for the Project Management Profession

During my career, I have worked on several very large projects in the construction, defense, energy, environmental and transportation sectors. In a number of cases, the classic mistake was made to require project management qualifications and knowledge at the top only, and not many levels down the organization. In addition, risk management was simply delegated to the contracting officers or procurement department, with no further requirements for professional project management at lower levels, on contracts and sub-contracts, and no visibility up (or down) the supply chain regarding plans, status, problems and, yes, project risks.

Fortunately, organizations in all industries have been embracing modern project management as both common sense and good practice. But it has not been systematic, and the issues are still not well understood, even within our own profession. The implications are serious. The market for project management is much larger than anyone realizes, much larger than the projections by PMI or others. The risks on most programs and projects are much greater than most realize, and risks multiply as projects get bigger and the supply chain grows.

Finally, there is a need for more research and better models for project management, especially in the program management arena and on major/mega projects. The number of major projects around the world continues to grow, many involving multiple countries and international organizations. On such programs and projects, the issues and risks related to project management multiply dramatically – due to some of the points made above. The PM body of knowledge for management such programs and projects needs to be expanded.

So, how many project managers can you now see on your project?

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About the Author



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David L. Pells is Managing Editor of the **PM World Journal**, a global eJournal for program and project management, and Executive Director of the PM World Library. He is also the president and CEO of PM World, the virtual organization behind the journal and library, and of PM World Services, an executive P/PM advisory firm. David is an internationally recognized leader in the field of professional project management with more than 35 years of experience on a wide variety of programs and projects, including engineering, construction, defense, energy, transit, high technology, and nuclear security, and project sizes ranging from several thousand to ten billion dollars. He has been an active professional leader in the United States since the 1980s, serving on the board of directors of the Project Management Institute (PMI®) twice. David was awarded PMI's Person of the Year award in 1998 and Fellow Award in 1999. He is an Honorary Fellow of the Association for Project Management (APM) in the UK; Project Management Associates (PMA - India); and of the Russian Project Management Association SOVNET. From June 2006 until March 2012, he was the managing editor of the globally acclaimed *PM World Today* eJournal. He is currently an advisor to several government organizations related to P/PM on global programs. David has published widely, speaks at conferences and events worldwide, and can be contacted at editor@pmworldjournal.net.