

## PM WORLD TODAY – PM ADVISORY – JULY 2009

## The 4Ps of Project Management – The PMPs

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Every aspect of business comes with the soup du jour of tools most notable by their easy to remember acronyms. This list grows daily as academics and businesses march along creating what they hope will be the antidote that fixes all that ails business. In fact anyone that has worked on project teams has at one time heard or uttered some of the following in their career:

4Ps, 5S, CAPA,  
DMAIC, DOE, FMEA,  
PDCA, QFD, SWOT,  
TIMWOOD, TQM, etc.

Many have become popular because they focus a team on the problem at hand in a clear and concise manner eliminating human emotions that sometimes get in the way of developing a strategy or solving a problem. Add to this the many home grown acronyms and teams have the business equivalent of the Swiss Army Knife at their disposal to tackle anything that impedes progress.

What is missing in my opinion is a simple tool that can be used by project leaders to guide them along the project expedition. My personal favorite among the many acronyms is the 4Ps of the marketing mix: Product, Price, Place and Promotion. Why, because after reading an 800 page marketing text as part of my MBA program, the 4Ps pretty much summed up the entire text! So during my career when I had the opportunity to go to the dark side – into a marketing role – the 4Ps came along for the ride. My peers and customers actually thought I was qualified for the role as I frequently opened the 4Ps blade in my knife. Frankly, this simple tool slay many marketing dragons with great success and focused an otherwise ADD marketer (yours truly).

Given my plutonic love for the 4Ps of the marketing mix, I thought it would be fitting to come up with the 4Ps for Project Management (PMPs). And to pay homage to my grandparents Dominic and Grazia who provided another important “P” word in my life – my last name Pillittere. After much thought, especially around words that started with the letter “P”, the PMPs were born.

They are:

- Processes
- People

- Parts
- Phenomena

These are the key elements that must be addressed if you're going to have any chance at a successful project, especially one that you are managing. Project managers are given responsibility along a straight line, with dictator on the left and administrative assistant on the right. Everyone approaches the job with their own personality and within the guidelines provided by the organization and its culture. Companies that provide processes, people, parts and support to address phenomena give the project manager a head start. After this it is up to him or her to lead the team to the end goal – a new product or service that will enhance the revenue, earnings or both of the company.

### **Process:**

START AT THE END

DEFINE MEANS TO THE END

DETAIL THE MEANS

DEVILS IN THE DETAIL

The process is the recipe for that delicious dessert which includes everything needed in order to create something that is going to delight the customer's palate. People are required not only to make the dessert, but the ingredients, equipment, and other miscellaneous items that are included in the recipe. Parts are the ingredients, mixing bowls, oven, cooking sheets, spatula, etc. Phenomena are the issues that might get in the way of creating a fabulous dessert – cooking at high altitude, accuracy of the oven temperature, improperly prepared ingredients, using incorrect ingredients and so on.

When you think of something as simple as making a chocolate cake for dessert; with chocolate chips, chocolate covered espresso beans, chocolate frosting and chocolate flakes – there are numerous things that can go wrong. Now replace dessert with a new medical device that is going to be sold worldwide and have to meet a plethora of regulatory and emission standards – and the challenges increase exponentially. The keys to success rely on making time early in the program to address the processes, people, parts and phenomena before jumping into the project. Why because it's too costly and time consuming to go back once the momentum of the project has started and expectations about end dates have been broadly communicated both internally and externally.

People rarely talk about too much upfront planning. It is always the opposite, if only we thought of that earlier; we wouldn't be in such a precarious situation. It happens when building a house, planning a home improvement project, preparing for a family vacation or shopping for groceries. Why do people pay professionals to build their home or remodel a

kitchen? Because professionals know the process, hire experienced people, understand how to procure parts and most importantly how to handle the unexpected phenomena. It doesn't matter how high your IQ is before heading off into project land, if you aren't prepared, you're asking for trouble.

It is learning through experience that makes us better able to manage the future. Good processes have been fine-tuned over time and encompass those previously missing items that made the difference between success and failure. If you don't have any processes in the beginning and make things up as you go – the only guaranteed result is a project that is late, over budget and doomed to fail. In today's business climate there is no such thing as unlimited anything, especially time to develop processes during a project..

## **People:**

LEADER

COMMUNICATIONS

OLD HABITS DIE HARD

HUMOR HELPS

Team members are similar to the opposite sex; can't live with them and can't live without them. They're like an extended family where based on statistics, there is going to be an Uncle Raffi – the individual that no one wants to attend or worst yet sit next to at the family reunion. However, we do have a choice in courting and then marrying our wives or husbands, something that is not always an option when it comes to the composition of project teams. Project managers relish those programs where the selection of some or all of the team is squarely placed in their hands. Often there is little involvement by the project manager as team selection is left to others in the company.

A project manager's greatest assets and liabilities are the members of the project team. His or her ability to lead this group, foster an environment of open communications, mitigate bad habits and inject humor go a long way toward success. My definition of people extends beyond the corporation since many projects have tentacles that reach well beyond their own brick and mortar. Sometimes the critical path of the program lies outside the organization, therefore, all people who touch the program are important.

Processes are the great equalizer since they force the many different characters on the team to fall lock step with the business processes. There is no ambiguity to perform solely based on your own agenda; each member is expected to abide by the rules as defined by the processes. Look at a football team, everyone plays their position based on established guidelines, deviation from which can lead to disastrous results. However, everyone is also expected to help out others when needed. Here a collective group with different skills and roles succeeds

if they play within the processes. Processes also improve communications, enhance leadership and mitigate old habits. The only thing missing is humor.

Humor is a necessary ingredient for projects, without it, frustrations that come with every project will fester and negatively impact the team's ability to manage the un-imagined. Teams that have fun together, perform better, more effectively remove roadblocks, and are more in tune with each other's and the customers needs. Humor energizes teams and makes them look forward to going to work each day to tackle the next challenge. What's that old adage, "Do something you love to do," well working with people that can laugh and joke together goes along way towards this saying.

## **Parts:**

### PARTS IS PARTS

You might be wondering, parts doesn't take into consideration all of the required inputs needed for a successful program, such as equipment, tooling, test fixtures, real estate, consumables, etc. that go into building a product or providing a service. You're correct; parts are a metaphor for everything that needs planning in order to fulfill customer needs. It's just that parts were such an obvious problem with many programs I've managed (and of course it started with a "P") that it made sense to use.

The supply chain has become a very important aspect for today's businesses to manage as technology changes create new products and services in the blink of an eye. Customers demand the best, feature rich products as soon as possible. Marketing leading companies go beyond this and introduce next generation products in rapid succession. Being able to get ahead start on the parts, equipment, and other consumables that are product inputs allows the company to reduce time-to-market and reap profit. No longer can teams wait until the product is perfect before revving up the supply chain. Doing so could have parts in transit as competitors are launching the next great product.

Parts are a parallel project that must be managed with the utmost care in order for the corporation to succeed. Adding complexity to the supply chain mix are regulatory certifications like RoHS that can obsolete whole product families. Bottom-line, in today's society, customers don't want to wait for anything, why frustrate them by taking your eye off the supply chain. Well managed projects land parts just-in-time for production to meet customer demand.

## **Phenomena**

MURPHY

Let's be realistic, even if the project was well planned with a tested commercialization process, excellent people, and a parallel blueprint for parts; phenomena or the unexpected are going to happen. So why do project teams continue to fall into the trap of the blue-sky, everything is going to be perfect on this project mentality over and over again? First, humans don't want to admit that they're not smart enough to plan for the unexpected. Second, the initial enthusiasm of a new project clouds people's judgment. And third, no one likes change in the form of problems that get in the way of success - what is a common human trait carries over to the team.

How do you planned for the phenomena, well, an experienced project team helps because they've faced phenomena and have lived to tell the story. Nothing is better than having team members that are project hardened and are not intimidated by common problems. These individuals can educate the team early about potential roadblocks they've encounter in the past and how these issues where addressed. It is up to the project manager to make sure this experience is included in the schedule. Adding time to the project based on these phenomena does no good, what has to happen is to figure out a way to address them before they even have a chance of gaining traction.

Besides a clear end goal, well-defined processes, parts, and team experience, the last key to mitigating phenomena is attitude. There has to be a certain cockiness or swagger within the team that dares Murphy to cause chaos. The team takes on the Old West Sheriff's mentality that no one is going to mess with my town on my watch. These teams rise to the occasion, quickly harnessing their trouble shooting tools and attacking the problem with the precision of a brain surgeon. How do you create such a team, well, that's the topic of a whole other book? I've been part of both experienced and inexperienced teams that possessed this ability. The only common tread between them was a clear goal and a willingness on the team not to fail in pursuit of the goal.

Finally, sometimes as much as project managers plan for every conceivable aspect of program, good old positive phenomena (or dumb luck) can make or break the project. Of course, some people say you are your own luck. These are the times when the whole in terms of team chemistry is better than the sum of its parts!

## **Conclusion**

Are the PMPs: Processes, People, Parts and Phenomena, the perfect antidote that will solve all project issues? Of course, after all they are an easy to remember tool that helps simplify the complexities of project management. Eliminating complexity in turn reduces variation, which according to quality gurus such as W. Edwards Deming improves quality, reduces expenses

and increases productivity. So there's the proof, the PMPs according to 4 out of 5 quality gurus can be used by project managers and team members to make project nirvana.

Realistically project management is always going to come complete with variation in the form of specification changes, team personalities, parts problems, management incompetence, competitive actions and marketing gymnastics. Certainly the PMPS can be used to help minimize potential project issues, but besides understanding how and when to use the PMPs, the project manager additionally has to assess the caliber of these. How good are the processes, are team skills applicable to project needs, are suppliers capable of producing parts, and does team have to ability to take on Murphy?

So in the end, the PMPs are just another tool that can be added to the project managers Swiss Army Knife to improve their chances for success. They are a checklist of key ingredients that if properly used can lead to success. But as with every project, people (both internal and external) create the product specification, develop the processes, make the parts and cause the phenomena. And project success is going to be proportional to how well people involved in the project can be unified as a team for the good of the end customers – simple as this sounds – it is what keeps project managers up at night.

In the text, *Are We There Yet? Diary of a Project Manager* (<http://www.mmpubs.com/diary>) I provide a diary of project dynamics based on my many experiences on project teams both as a leader and member. The learning's from this diary led to the creation of the PMPs as a way to bring the fictitious and very dysfunctional team together. I highly recommend that all project leaders and team members read this and make sure they are not performing the way the characters are in the text. Or the next book might have a character based on you.

**Below are excerpts from Are We There Yet? Diary of a Project Manager:**

My hair has turned prematurely gray. When friends ask why, I put down my oversized bottle of industrial-strength antacid tablets and explain that, for much of my professional life, I've worked as a project manager. "What's that?", they ask, and I begin my answer. Soon after, they pick up the bottle, stuff a handful of tablets in their mouth, and suddenly remember an important thing they have to go and take care of.

Everybody has been a part of a project at some time in his or her life. Your entry in the junior high school science fair was a project. Dinner for twelve is a project. So is mowing the lawn, creating a scrapbook, planning a vacation, building a house, pursuing a cure for cancer, raising kids, or developing and delivering a new piece of technology.

With any project, there are several common requirements:

- A goal or objective.
- People to do the work.
- Money to pay for everything.

- Materials to give the project shape.
- And planned tasks to move the project along to completion.

Projects have all these things and one other thing as well. All projects have problems. There simply is no such thing as a perfect, problem-free project. If there was such a thing, many more project managers – including me – would be dark-haired, unemployed and spending a lot less time in the drug store antacids aisle.

Well, I got the job with the communication company. Meet the Manufacturing Project Manager for a new portfolio of products that will incorporate the latest communication chip set from a Fortune 100 company. I'll oversee two distinct product families: one for low-frequency bands and the other for high-frequencies. Basically, the products are a handful of circuit boards, enclosures and software. The majority of the mechanical parts will be carried over from the previous generation of products. Only circuit boards and software are part of the commercialization effort.

I have a lot of catching up to do, since the program has been in progress for well over six months. The low-frequency program is further ahead, and Operations – which includes manufacturing, testing, purchasing, logistics, and me – has to start planning for production. I'm excited to get started on this new adventure, and maybe a little apprehensive. "Newbie" to team or not, I already can see signs it will be more like a roller coaster ride, and I despise roller coasters. I've been given a new version of Microsoft Project – which I haven't used in more than ten years – to develop a schedule. I need to become an expert real fast.

Our VP of Sales, Sal Moore, really knows the market and is pushing us to succeed. That's good and bad. Sal seems to have overcommitted the team regarding availability of low-band products, and it will be up to me to see how far off his commitments are once I complete a project schedule. But after seeing Sal in action, I'm glad he's on our side. As much as everyone loves to hate Sales, they're the ones bringing in the dollars that pay salaries and benefits. Sal has personal relationships with many large customers and he's taking full advantage of the situation.

I got to work gathering information on the boards and put together a schedule that showed critical paths and, ultimately, when pre-production units could be built. Each board requires a schematic, bare board layout (and files), a bill of material (BOM), parts specifications and an assembly procedure. It isn't brain surgery, but things can go wrong since lead times for parts are unknown in the beginning. Bare boards can be purchased in three days or less (at a premium ... ouch!), so there are no big worries around board lead times – just the parts. The good news is that each of these boards is on its second or third revision, so lead times on existing parts are known. The bad news is that Engineering has been known to change parts on, or add new parts to, the BOM without much notice.

That ominous, relentless sound you hear in the background is a ticking clock. Even though Richard promised to give us approval to purchase parts, the decision has yet to be

made. At Wednesday's team meeting I bring up the fact that we have now lost two weeks of lead time, and no one – not even the managers – is willing to give Peter the go-ahead. It's a good thing Peter is experienced. He's already instructed the buyers to go ahead and order longer lead-time items. His motto is: "It's easier to get forgiveness than permission."

We still have a long way to go. My optimistic outlook on schedule dates is proving to be very wrong. Our engineers have missed due dates on two of the four boards, and recent changes that required new parts have made availability dates for them a crap shoot. Dates for tasks and durations are changing as rapidly as the board designs. Engineering change orders (ECOs) are flying fast and furious since Operations made it clear to Engineering that we were going to use the BOMs in our MRP system as a purchasing guideline. But there's nothing easier than changing a change order, so who knows?

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