Managing BPM

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Plan P From Outer Space

To paraphrase Tolstoy, "All successful process teams suffer with the same problems. All struggling process teams suffer in their own way." One problem I've seen many times is the way a successful process team – one which is successful in process optimization, in streamlining, in "transformation" – may face a demand that very quickly outstrips their ability to perform work. Our team at HP grew in demand from 4 to 10 to 20 to 200 (sound of a faint explosion in the distance). Even with a well-performing team of 10-20 people, and before there was a huge demand, we struggled with one critical thing – planning.

What is "planning" for BPM teams? First, let's answer the question, "What's planning?" Most people confuse planning with scheduling. Scheduling is determining a set of tasks with fixed start and end dates, allocating potential resources to each task. Planning is looking at a set of goals or demands and identifying how they will be achieved – that is, what resources will be needed – kind of like scheduling, but without the calendar. Planning involves four processes: What is a demand on a resource (BPM team)? What is the supply of resource (BPM Team time)? What is the balanced relationship between the two (for example, a "year plan")? What is the communication of the balanced plan?

With this simple model, how did we at HP go about planning the BPM team? First, we looked at what the demand looked like over a year – how many BPM projects of various sizes were likely to hit us? We also segregated the demand by function – supply-chain, sales, design, etc. Since we were starting out, we were quite conservative. Based on experience, we also had certain assumptions about average size (time) of a project, based on the business scope. That gave us a "raw demand" picture for the process team. Think of it as the "number of team days" of work: We looked at roughly 3 months per project on average, 3 people per project, and 10 projects per year = 3x3x10 = 90 people/months per year. At 70% utilization in time, that becomes 128 people-months, or 10 people working continuously, with 3-4 in each focus area. We communicated this plan, and our sponsor (HP's former CIO, Bob Napier) gave us the resources.

This worked for a while (year 1 of our team). In year two, we came to a deep understanding that not everyone was interchangeable. That's when we looked at the specific model of a team doing projects, and identified four key roles, and assessed how many of our people had capabilities in those roles – leader, modeler, analyst, and program supporter. You don't need an analyst for an entire project, nor a modeler. You do need leadership and program support for an entire project. Not everyone could be an analyst. Everyone could be a modeler. This gave us immediately a more sophisticated planning view. We also knew we had a more significant demand in our second year, with more than 20 major programs heading our way. We had so many "analyst months," and so many "modeler months," and so on. Suddenly we didn't have enough people, and not enough of the "right people." Furthermore, the variability of the projects (they overlapped messily!) meant we needed lots of resource sometimes, and very low numbers other times. Just like manufacturing!

We took two actions: First, through an agency, we established a base of contract modelers who were trained in our frameworks and process tools (this would become incredibly helpful later).

Second, through a second agency, we established a base of contract program managers who were trained in our methodology and standard program schedule and tools. Our core team was then established as the lead, those who had lead analyst focus for all projects. We were able to handle all projects very flexibly through the second year, for about 6 months. But demand kept ramping up up up! Our team took over Sarbanes-Oxley 404 compliance for HP, which blew demand up to dozens and dozens of process modelers, and several program managers. Second, the high variability in the size and scope of programs kept increasing, and teams were fighting each other for resources.

The final adjustment we made was to differentiate resource plans based on the average sizes of programs, instead of the functional areas. We called them "Unit specific," "Strategic," and "Corporate" programs, which had size rations of roughly 1:2:4 in scope and resource demand. Supply-Chain, Sales, and Design programs we ignored, because we found in practice that our teams were, in fact, interchangeable across domains – not in process skills. Within 2 months in the final planning adjustment, the team resource fighting ceased, and we formed a nice balance with the demand we experience. Happily, we also got resources again from our sponsor.

Then we began to enter year 3, and our demand increased 10x over the prior year. At that point, the team began absorbing all independent process individuals and teams across the company – Six-Sigma, process improvement, and so forth. The team grew to over 40 people, and then grew again. We developed a team in our India consulting organization. We developed a second team within our services division of over 100 people globally to provide some support to internal projects. It was a monster! It was The Process Team That Ate Tokyo! Godzilla vs. BPM. We were way beyond our original sponsor base at this point of staffing, and were managing a large, complex global staff. Planning was fundamentally the same, but whom we were communicated with was changing.

So back to earth and some simple formulas from our experience in creating teams:

For small teams (1-10) it's easy to plan your staff base with an assumption that most people are interchangeable (usually true in small teams).

$$P \times Psize \times Pstaff \div Util = TeamSize$$

Where P = Number of Projects projected for year
$Psize$ = average size in a time unit (day, week, month)
$Pstaff$ = average staff per project
$Util$ = average time they can spend (70% is a norm).

For middle size teams (10-30), you should probably look at numbers of people per resource type, because you're probably hiring by differentiated skill set. You could also add a factor for variability in the starting time of project (difference between low and high demand), but I'll keep it simple.

$$\sum_{types} P \times Psize \times Pstaff\,(skill) \div Util = TeamSize$$

Where P = Number of Projects projected for year
$Psize$ = average size in a time unit (day, week, month)
$Pstaff$ = average staff per project
$Util$ = average time they can spend (70% is a norm)
$Skill$ = each of your team skill sets (analyst, lead, etc.)

For large teams (40-200+) with a complex mix of BPM program sizes, you need to add a final variable, which is the number of people per program types.

$$\sum_{type,skill} P(type) \times Psize(type) \times Pstaff(skill) \div Util = StaffSize$$

Where **P** = Number of Projects projected for year
Psize = average size in a time unit (day, week, month)
Pstaff = average staff per project
Util = average time they can spend (70% is a norm)
Skill = each of your team skill sets (analyst, lead) etc.
Type = each of your defined project size categories.

Apologies to Ed Wood and "Plan 9 From Outer Space" fans.