

EXPECTATION MANAGEMENT:

A “GATEWAY KEY” TO PROJECT SUCCESS – CLIENT SATISFACTION



A 2005 Professional Development Symposium White Paper

SYMPOSIUM SPONSORED BY:

**North Alabama Chapter of the Project Management Institute (PMI)
&
Defense Acquisition University (DAU)**

WRITTEN BY:

David L. Hamil, PMP, MBA
Director, Product Integration
Telcordia Technologies, Inc.

15 September 2005

Abstract

Traditionally project management could be summarized as a triangle with time, cost, and scope as the three vertices and quality in the middle. Today, the project management ‘triangle’ has given way to the project management ‘diamond’ with time, cost, scope and quality as the four vertices, and expectations in the middle. Experienced project managers often complain that managing system owners’ and users’ expectations of a project are more difficult than managing time, cost, scope, quality, or people. So what are ‘expectations’ in the context of this new ‘diamond’ framework? Expectations are your client’s often-unstated perceptions of a future event, action or deliverable that can change over the course of a project life cycle and are critical to the success of your project.

This paper will introduce an expectation management framework to assist project management practitioners in: 1. setting expectations, 2. monitoring expectations, and 3. influencing expectations; all within the context of the project management ‘diamond.’ I will also introduce a simple, rule-driven tool called an expectation management matrix that can help project managers deal with the problem of managing system owners’ and users’ expectations as they lead their project to success.

INTRODUCTION

Traditionally project management has been summarized in a triangle (see Figure 1) that show the three most important factors – time, cost, and scope – as the vertices with quality as the central theme. More recently, this has given way to a project management diamond (see Figure 2) with time, cost, scope and quality as the four vertices and customer expectations as a central theme.

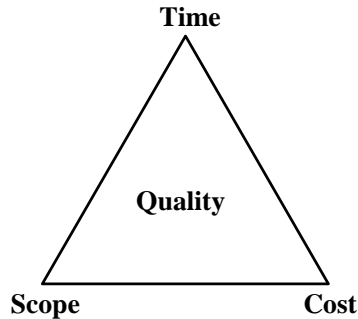


Figure 1. PM Triangle (Old)

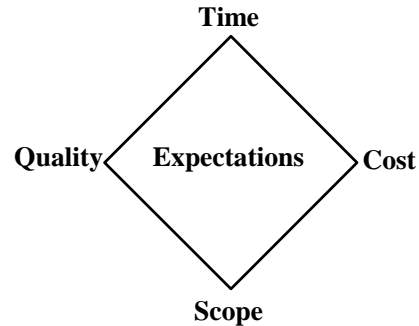


Figure 2. PM Diamond (New)

Regardless of where you fall in your company’s food chain, managing expectations is a gateway key to being successful and saving your sanity.

The intent of this paper is to provide managers, designers and developers of systems, or those who strive to be, with the “what,” the “why (importance of),” the “who,” the “when,” and the “how” of expectation management (**EM**).

Because the various topics, experiences shared and strategies discussed are presented in the manner of tips or guidelines, the pronouns “you,” “I,” “we,” “your,” etc., are mixed in with imperative sentences. This is a conscious choice: the formal tone is traded to improve communication.

Let’s take a “look under the hood” and see what really drives project success ...

WHAT IS IT (EXPECTATION MANAGEMENT)?

Expectation Management can best be explained by the following situation: *“I expect you to deliver an iceberg to my private lake to keep the party drinks cold, because that’s what was in your pitch. If I still believe that’s what I’m getting when it’s delivered, and it’s not, we’ve got a problem because I think you’ve failed me. However, if you’d told me much earlier, that we can’t find a means to deliver the iceberg to Alabama, but we can provide you enough ice to fill your in-ground swimming pool if that’s OK, then when I get the ice delivered to the pool, I’m not disappointed.”*

Expectations are deeper and broader than requirements; they are your client’s vision (or perception) of a future state or action, usually unstated but is critical to your success. (Alev, Manage Expectations ...)

They (expectations) are sliced in two ways:

1. **They are a primary measure of your success.** In your client’s mind, satisfaction is how close you’ve come to their expectations, not necessarily how close you were to the wording in the contract, or scope of work, or better yet the performance criteria. In some instances, it may not even be the actual results of the project but the process with which you arrive there.
2. **Expectations drive all of your client’s actions and decisions.** It’s not their everyday duties of their assigned role or your very rational explanations that drive them, but their expectations. (Alev, Manage Expectations ...)

Project management, as you know, is about people management, technology management, business management, risk management, change-control management, etc. but an often forgotten (or simply ignored) area that touches all facets of project management is Expectation Management.

EM is an approach that allows the project management practitioner to assess the potential predictability of expectations throughout a project life cycle. Trending the possible changes, it necessarily follows that it must be possible to be more effective in shaping and influencing stakeholders’ expectations to a point where any variances between project performance (outcome) and stakeholders’ expectations are within acceptable limits.

Experienced project managers, who are cognizant of EM, state that managing system owners’ and users’ expectations of a project are much more difficult than managing cost, schedule, people, or quality.

WHY ALL THE HYPE?

One of the greatest, professional basketball players of all time, Michael Jordan, retired, again. That’s sad for NBA fans. It appears that Michael throws out these surprises ever few years.

Do you remember the excitement caused when he returned to basketball several years ago? There were quotes from every conceivable source, for months prior to the announcement: *He’s coming back.*” “*No, he’s not coming back.*” Such quotes continued week after week, up to the day prior to the announcement.

Imagine the pressure you would be under if you were Michael Jordan. “*Could you possibly say you were NOT coming back?*” Probably not.

Michael’s problem was an example of the law of expectations taken to an extreme, i.e., “hype;” the media equivalent of heightened expectations. Welcome to the world of mind games: hype, spin, slant, innuendo, etc. When used in proper, ethical context, it is not a game or illusion but reality.

Whether you’re the sponsor of a new NASA mission, future user of a new software product, or an NBA fan, your expectations must be managed properly by those who are responsible for delivery of the particular product or service.

One of the most frustrating experiences for a project management team is to discover that their project meets all of the specifications, but does not meet the expectations of a project sponsor or the end users. You’re aware of the project management truths, “Plan to Execute then Execute to Plan,” or if you “Fail to Plan, then Plan to Fail.” Same goes for managing expectations, “Manage Expectations or Expect to be Managed.”

The success of a project might be measured by the supplying project manager in terms of deliverables versus scope. However, from your client’s point of view, project success is simply the deliverables measured against his or her “expectations.” Just as “beauty in the eyes of the beholder,” so too is project success in the “eyes” of the beholder. (Vaidya, Four quadrant ...)

So, the hype (or key) here is to align perception and reality –
Perception + Reality = PR. We can all use some good PR now and then; Michael sure thought so!

TAG YOU'RE IT! WHO?

Everyone on the project team should be involved in expectation management, in some form or fashion.

The following people must be involved in external EM:

- Practitioners of project management – are the PM(s) prepared to manage expectations, especially during difficult times?
- Account managers – e.g., are the AEs over-selling the product features?
- Marketing managers – e.g., what might be interpreted from the product brochures?
- Contract managers – e.g., does the contract or statement of work contain wording that could legally bind the corporation to a commitment that cannot be fulfilled?
- All staff with customer interface responsibilities

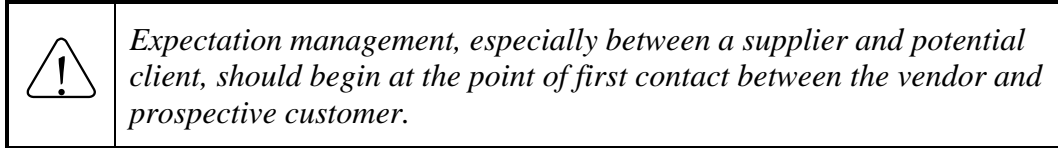
Internally, the team members who have either direct customer-facing responsibility or support those who do are:

- Executive/senior management
- Sub-contractors
- Minions

The principal stakeholders who need their expectations managed are the project sponsor(s) and end user(s) of the recipient product or service. Since many other team members in the internal and external environment have direct customer facing responsibility, then it very important that EM is embraced as a project wide responsibility for all team members and support personnel.

WHEN TO MANAGE EXPECTATIONS?

When asked, “*When should you begin managing expectations?*” most people will respond, “*at project startup (initiation).*” Albeit this is a good response, it is not quite good enough, and I would suggest it’s a little late.



This first contact between a vendor and prospective customer might occur via:

- A product brochure that that curious executive (e.g., the project sponsor) picks up at a trade show
- A product demonstration performed by a sales person at an industry conference, or
- An impromptu, say “dinner” meeting between a software developer and potential product user.

Figure 3 depicts a simplistic, project timeline noting EM points and overall, lifecycle perception and reality areas.

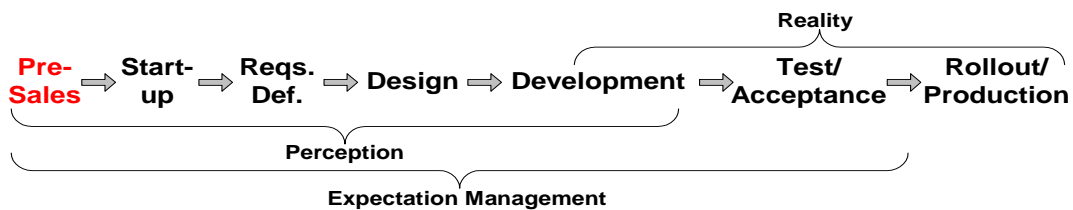


Figure 3. Example Project Timeline

The stage must be set for project success “prior to start up” by managing expectations from the outset of client and supplier interaction where perceptions are aligned with reality early and often. Obviously, life is not all rosé along the way but one is better assured of success during project deployment with early alignment of perception and reality and having successfully managed expectations throughout the life of the project.

HOW TO MANAGE EXPECTATIONS?

Experience has shown there are three principal components to managing expectations: 1.) setting expectations, 2.) monitoring expectations, and 3.) influencing expectations. (Alev, Manage Expectations ...)

**The Expectations Management Matrix –
A Tool for Setting and Monitoring Expectations**

In this section a simple tool is introduced - an expectations management matrix(EMM) - that can help project managers set and monitor systems’ owners and users’ expectations.

Every project has goals and constraints when it comes to cost, schedule, scope, and quality. In a perfect world, each of these parameters could be optimized; management often has that expectation. Reality suggests, however, that you can’t optimize them all – you must strike a balance that is both feasible and acceptable to management. That is the purpose of the EMM. An *expectations management matrix* is a rule driven tool for helping management understand the dynamics and impact of changing project parameters such as cost, schedule, scope, and quality. (Friedlander, Ensuring Software Project ..., pp. 26-29)

The simple EMM, shown in Table 1, is a 3-row by 3-column table (plus headings). The rows correspond to the measures of success in any project: cost, schedule, and scope and/or quality. The columns correspond to priorities: first – P1, second – P2, and third – P3. To establish expectations, names are assigned to the priorities as follows:

- *Maximize or minimize* – the measure of success that is determined to be the most important for a given project.
- *Constrain* – the second most important of the three measures.
- *Accept* – the least important of the three measures in a project.

Table 1. Expectations Management Matrix

PRIORITIES →	Max or Min	Constrain	Accept
↓ MEASURES OF SUCCESS			
Cost			
Schedule			
Scope and/or Quality			

Most managers would ideally like to give equal priority to all three measures; experience suggests that the three measures tend to balance themselves naturally. For example, if there is an increase in scope or quality requirements, the project will take

more time and/or money. If the job must be done faster (shorter timeframe), generally there must be a reduction in scope or quality requirements or the client pays more money to compensate. The EMM helps (or forces) management to understand this through three simple rules:

1. For any project, one must record a P1, a P2 and a P3 within the nine available cells.
2. No row may contain more than one Priority; a single measure of success must have only one priority designation.
3. No column may contain more than one Priority; there must be a first, second, and third priority.

Let’s take a look at an example where we can apply the EMM. In 1961 President John F. Kennedy established the charter for a major project – land man on the moon and return him safely before the end of the decade. Table 2 shows the expectations of the project.

Table 2. EMM for Moon Mission

PRIORITIES →	Max or Min	Constrain	Accept
↓ MEASURES OF SUCCESS			
Cost <ul style="list-style-type: none"> • \$20 billion (estimated) 			P3
Schedule <ul style="list-style-type: none"> • 31 Dec. 1969 (deadline) 		P2	
Scope and/or Quality <ul style="list-style-type: none"> • Land a man on the moon • Get him back safely 	P1		

Walking through the example ...

P1 – The system owner (the public) had both scope and quality expectations.

The high-level scope (or requirement) was to successfully land a man on the moon. The quality measure was to return the man (or men) safely.

Because the public would expect no less from the new space program, this had to be the first priority.

P2 – At the time of the project’s inception, the Soviet Union was ahead in the space race. This was a matter of national pride; therefore, the second

priority was to get the job done by the end of the decade. This is the project constraint – there is no need to rush the deadline, but the deadline can't be missed.

P3 – By default, the third priority had to be cost (estimated at \$20 billion in 1961). By making cost the third priority, I am not stating that cost will not be controlled. I am merely stating that we may have to accept cost overruns to achieve the scope and quality requirement by the constrained deadline.

History records that we achieved the scope and quality requirement, and did so in 1969. The project actually cost well in excess of \$30 billion, more than a 50 percent cost overrun. Did that make the project a failure? On the contrary, most people perceived the project a monumental success. The government managed the public's expectations of the project in realizing that maximum safety and minimum risk, coupled with meeting the deadline (beating the Soviets), was an acceptable trade-off for the cost overrun. The government brilliantly managed public opinion. Systems development project managers can learn a valuable lesson from this balancing act.

At the beginning of any project, the project manager should consider introducing the system owner to the EMM concept and should work with the system owner to complete the matrix. For most projects, it would be difficult to record all the scope and quality requirements in the matrix. Instead, they should be listed in the statement of work. The estimated costs and deadlines could be recorded directly in the matrix.

The project manager doesn't establish the priorities, he or she merely enforces the rules of the matrix. Only the system owner may initiate priority changes. This sounds easy but it rarely is. Many manager are unwilling to be pinned down on the priorities – “Shouldn't we be able to maximize everything?” These managers need to be educated about the reason for the priorities and that they cannot maximize all three measures. This leads to intelligent compromises instead of guesswork.

What if the system owner refuses to prioritize? The tool becomes less useful, except as a mechanism for documenting concerns before they become disasters. A system owner who refuses to set priorities may be setting the project manager up in a no-win situation. And as Dr. Friedlander points out, “*Those who do not ‘believe’ in the*

principles [of the matrix] will eventually ‘know’ the truth. You do not have to believe in gravity, but you will hit the ground just as hard as the person who does.”

Let’s assume an EMM that conforms to the aforementioned rules. How does the project manager manage expectations? During the course of the average systems development project, priorities are not stable. Various factors such as the economy, government, and company policies can change the priorities. Budgets may become more or less constrained. Deadlines may become more or less important. Quality may become more important. And, most frequently, requirements increase. As already noted, these changing factors affect all the measures in some way. The trick is to manage expectations despite the ever-changing project parameters.

The technique is relatively straightforward. Whenever the “max/min measure” or the “constrain measure” begins to slip, it can result in a potential management expectations problem. For example, consider a project manager who is faced with the following priorities; see Table 3):

- P1** – Explicit requirements and quality expectations were established at the start of the project.
- P2** – A maximum budget was established for the project.
- P3** – The project manager agreed to shoot for the desired deadline, but the system owner(s) accepted the reality that if something must slip, it should be the schedule.

Table 3. Another EMM Example

PRIORITIES →	Max or Min	Constrain	Accept
↓ MEASURES OF SUCCESS			
Cost		P2	
Schedule			P3
Scope and/or Quality	P1		

Now suppose that during systems analysis, significant and unanticipated business problems are identified. The analysis of these problems has placed the project behind schedule. Furthermore, solving the new business problems substantially expands the user requirements for the new system. How does the project manager react? There should be no overreaction to the schedule slippage – schedule slippage was the “accept” priority in

the matrix. The scope increase (in the form of several new requirements) is the more significant problem because the added requirements will increase the cost of the project. Cost is the constrained measure of success. As it stands, an expectations problem exists. The project manager needs to review the matrix with the system owner.

First, the system owner needs to be made aware of the measure or measures that are in jeopardy and why. Then together, the project manager and the system owner can discuss courses of action. Several courses of action are possible:

- The resources (cost and/or schedule) may be reallocated. Maybe the system owner can find more money elsewhere. All priorities would remain the same (noting, of course, the revised deadline based on schedule slippages).
- The budget might be increased, but it would be offset by additional planned schedule slippages. For instance, by extending the project into a new fiscal year, additional money might be allocated without taking any money from existing projects.
- The user requirements (or quality) might be reduced through prioritizing those requirements and deferring some of those requirements until version 2 of the system. This alternative would be appropriate if the budget cannot be increased.
- Finally, measurement priorities can be changed.


There are three final comments about priority changes:

1. Priorities may change more than once during a project. Expectations can be managed through any number of changes as long as the matrix is balanced (meaning it conforms to the aforementioned rules).
2. EM can be achieved through any combination of priority changes and resource adjustments.
3. System owners can initiate priority changes even if the project is on schedule (for example). Government regulations might force an uncompromising deadline on an existing project. That would suddenly migrate the “accept” schedule slippages to “max constraint.” The other priorities would have to be shuffled to rebalance the matrix.

While the EMM is a simple tool, it can be one of the most effective.

Influencing Expectations

The traditional approach to managing user expectations has been the reliance on documenting the customer’s requirements and getting the customer to agree with what we wrote. The idea has been “*let’s make sure we document every conceivable aspect of the system in a functional requirements specification. Then we have the customer sign off on the document. That way we’re covered, right?*” Not necessarily. The most elementary problem with the documentation approach is that often users don’t understand it. If the documentation is not helping the users, or other stakeholders, it may serve only as contractual milestone (e.g., payment point) and offer little or no other value to the team.

	<p><i>Project delivery effectiveness is more a function of the client’s perceived satisfaction rather than cold hard facts or deliverables versus scope. Since the client’s view is ultimately what brings in business, managing customer expectations drives success. Whether the expectations are rational or irrational, valid or invalid is irrelevant. Everything else is secondary.</i></p>
---	---

Documentation remains, however, an important part of the systems development process, but it often does not serve the purpose of managing user expectations unless it is used with more cooperative means. Let’s take a look at some cooperative, much more effective means of EM.

What did Michael Jordan say in his announcement to return to basketball? “*I may not be 100% for the first few games. I have learned that winning championships is not the only thing in basketball.*” This was a smart move on his part by attempting to lower expectations. A safety net, in any game, is to “under promise and attempt to over deliver!”

The following are eight, basic influencing techniques:

1. **Establish trust.** People are influenced only by those they trust. And trust is not awarded, acquired, bought or sold. It is earned. To substantially ensure continued business with your customer, you (the supplier) must earn the trust of the project sponsor(s) and user(s). (Alev, Manage Expectations ...)
2. **Communicate/Educate, communicate/educate, and communicate/educate.** The more your clients (or potential clients) know the better. Because then they understand what they are “getting for their money,” the complexity of

your work, the dependencies and constraints and the impact their expectations have on your work.

Communication/education can be achieved by various means. Some examples are: face-to-face, video or teleconference meetings, training classes and/or demonstrations (e.g., Web demos), e-mail, and multi-media brochures, reports, project implementation plans, specifications.

3. **Explain why.** “It worked on my last three projects...” (demonstrating experience) “It would cost less or work well if we did ...” (demonstrating partnership), etc.
4. **Influence in private.** It’s less confronting. People don’t like to change their minds in public or to admit their lack of knowledge.
5. **Show them, and then sell them.** This is the “free sample” strategy. Let them experience the benefits of what you’re suggesting before you go and attempt at selling them on an idea. (Alev, *Manage Expectations ...*)

An example of this might involve an unpaid, proof-of-concept system sub-component that would allow the users to “test drive” a new application interface.

6. **Prototyping.** Some of the strategies we have touched on thus far may prepare users to expect what is realistic as an attempt toward satisfaction. If we take these steps further, wouldn’t it be nice if users could have a preview of what the system will be like and have the opportunity to comment on it? This is precisely the idea behind prototyping.

Prototyping (the mock-up) means building a working model of the system. A prototype doesn’t do everything the final system will do but it simulates some of the essential features. For example, a software application user might be able to see how the interface will look with regards to screen layout, menus, buttons, etc. Some buttons may not work or the system may not be connected to the production database, so maybe only some phony data can be retrieved. But the essence of the system is represented.

The prototype can be a great tool for zeroing in on users’ needs.

Prototyping has many benefits. For one, it accommodates the communication

style of the user instead of the designer or developer (Boar, Application Prototyping ..., p. 38). The prototype gives the user and the developer something concrete to talk about, substantially alleviating communication problems and misunderstanding (Boar, Application Prototyping ..., p. 40). It (the prototype) is much easier for a user to evaluation than a requirements definition because it is closer to their everyday experience. “It is atypical to ask a user to approve a 6-level process decomposition,” (Boar, Application Prototyping ..., p. 39) Instead of users being disappointed at the end of project when the system doesn’t do what it should (missed expectations), they are excited at being involved with developing something new. In general, users can’t wait to see a prototype. With regards to cost, “this sounds inefficient and expensive...but there are few things more expensive that...a system that the users will not user.” (Kenny, Managing Software ..., p. 43) The project manager must weight the cost/benefit odd. Research has shown that prototyping leads to better designs, better alignment with user needs, and improved maintainability. (McConnell, Code Complete ..., p. 562)

7. **Balance the give and take.** See if you can identify some of your client’s expectations that you have not acted on and that are relatively easy to satisfy at little to no expense or impact to the schedule. And make sure they are satisfied. Partnering with your client, address expectations that you would like to change.
8. **The sooner the better.** Expectations get firmed up the longer they are left alone. Work on them as early as possible to avoid problems later.

SOME CLOSING THOUGHTS

All people have expectations that drive the way they interact, whether they are at a family gathering, attending a meeting, working on a project, managing a business, or even leading a country. Understanding these expectations and responding to them is an art for managers; EM is the corresponding discipline, and the “how to” strategies described herein are techniques within that discipline.

A careful mix of EM strategies that fit the environment in which you are working should help to ensure that the project sponsor(s) and user(s) know what to expect from the system prior to delivery. If there are any surprises, then let’s proactively make sure they are pleasant ones ...

REFERENCE LIST

- Alev, D. Manage Expectations or Expect to be Managed. Retrieved 7/21/05 from <http://consultingacademy.com/a08.shtm> and <http://consultingacademy.com/a09.shtm>.
- Boar, B. (1984). *Application Prototyping: A Requirements Definition for the 80s*. New York: John Wiley & Sons.
- Friedlander, P. (1992, March/April). Ensuring Software Project Success with Project Buyers. *Software Engineering Tools, Techniques, and Practices 2*, no. 6.
- Kenny, A. (1989). *Managing Software: The Businessman’s Guide to Software Development*. Boston: Blackwell Scientific Publications.
- McConnell, S. (1993). *Code Complete: A Practical Handbook of Software Construction*. Redmond, WA: Microsoft Press.
- Vaidya, K. (2005, May). Four quadrant expectation management. Retrieved 7/23/05 from <http://www-106.ibm.com/developerworks/rational/library/may05/vaidya/index.html>.