



“Best in Class” firms in the engineering and construction industries may know something yours doesn’t.

In a year that began with new construction starts settling back 3% (and some sectors dropping by over 23%), top-ranked contractors used their secrets to not only grow, but also to improve their profitability.

The Seven Habits of Highly Effective Projects

BY LEE D. SMITHER & CHRISTOPHER K. BELL

According to *CFMA's 2003 Construction Industry Annual Financial Survey*, “The median net income per contract for Best in Class firms was nearly five times greater” than that of their peer group.

What makes this even more compelling is that “Best in Class” (BiC) firms actually had fewer contracts per year (64 vs. 70 for the typical company).

In addition to superior financial performance, BiC organizations receive many “soft” benefits. Some of these include single-source work, a higher percentage of repeat customers, higher

employee retention rates, a last look at bid opportunities, and other competitive advantages.

What secrets do the BiCs possess?

What do they do so differently that allows them to perform five times better than their peers?

The answer lies in their “habits.”

Today's Projects

Although every project has unforeseen occurrences, project cycles are predictable. The Project Forecast Curve graph

shown below demonstrates a typical project in the industry today.

Looking at the teal line, a project has a start date, progress toward completion, and an end date. This end date is the date given to the customer and becomes contractually binding. In essence, this date is directly tied to profit margin.

However, real life doesn't always go as planned. Take a look at the purple line, which is the real-life forecast. Something happened, as it always does, on the project. Because the project team was surprised and had no advance warning of the problem, they were faced with two choices: get the project back on schedule or finish late.

Unfortunately, getting back on schedule comes at a price. Adding overtime, increasing manpower, and issuing change orders can eat away at a fixed margin. Being late also risks project profitability by having to pay liquidated damages, resolve claims, and deal with potentially unhappy clients.

The bottom line: Neither option is ideal because they both put a project's planned profitability at risk.

Project Manager = Business Manager

According to the SBA, the average small business has an average total revenue of \$1.2 million a year. According to research conducted by McGraw-Hill, the average construction project is \$2.5 million.

So, essentially, today's PMs are accountable for the profitability of a project that is twice the size of the average American small business.

The best PMs have long since realized that success in project management is equal to success in business. Successful PMs do far more than merely drag their projects across the finish line.

They understand that budget and schedule compliance are the bare minimums required to create a lasting impression on a customer. They also realize that they need to possess a deeper set of skills and operate with a much broader outlook if they are to be among the BiC.

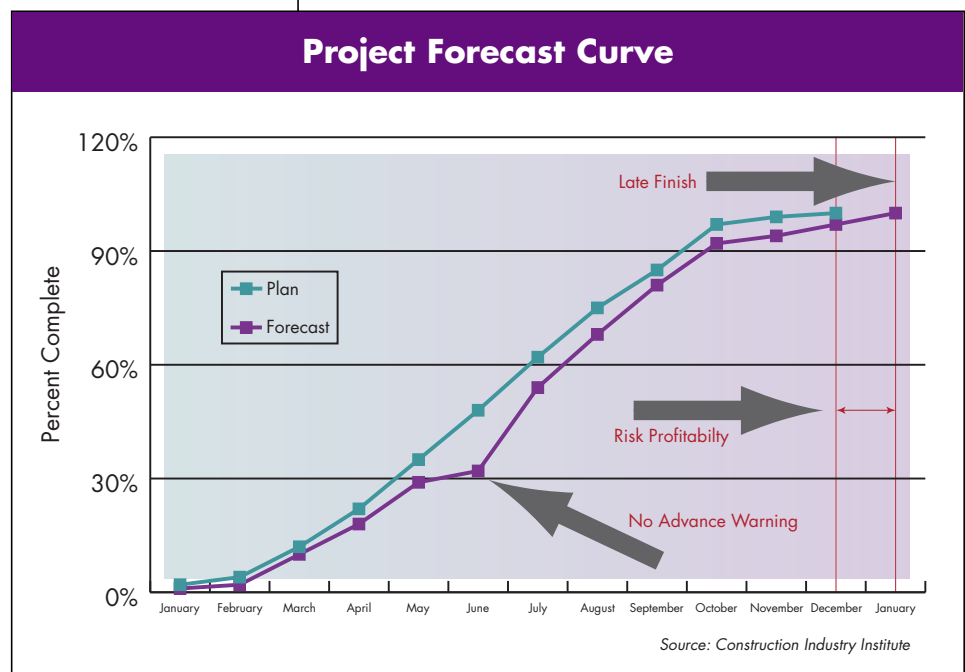
Although many PMs define themselves by their technical knowledge and skill, there is an increasing awareness that successfully completing projects on time, within budget, and with delighted customers is more about the successful orchestration and facilitation of others than it is about technical expertise.

Enlightened companies are aggressively seeking to recruit, train, and retain PMs with this more comprehensive understanding of how to manage projects.

The Seven Habits of Highly Effective Projects

People often refer to habits as either "good" or "bad," based on whether the activity is considered acceptable or not. In 1989, Stephen R. Covey (internationally respected leadership authority, teacher, and organizational consultant) provided a new, clear definition for us – *a habit, he explained, is the intersection of knowledge, skill, and desire.*

BiC firms know that engineering and construction projects are proving grounds for habits. Scheduling pressures, changing designs, productivity goals, and safety requirements put a variety of stressors on projects – and, it's up to the PM, as business manager, to reinforce the good habits that consistently achieve success.



After years of experience and countless discussions with engineering and construction companies, we found that BiC organizations do seven things very well, over and over again. These seven habits aren't new or even complicated. In fact, they are so simple that any company can follow them.

HABIT 1 – BE PROACTIVE

BiC firms don't simply react to the crisis of the moment. They anticipate and plan for potential problems by putting an early warning system in place. This way, there are fewer surprises to deal with and they can focus on making the right decisions. An early warning system should consist of three things:

- 1) A well-prepared schedule,
- 2) A project plan, and
- 3) Good cost accounting or production reports that show historical performance.

Many software products are available to help produce all three. However, this can be a difficult process for companies with disparate, unintegrated systems – their project information must be updated manually, thereby creating a greater potential for errors.

Surprises = Risk

According to research presented by the Association for the Advancement for Cost Engineering (AACE), it takes anywhere from two to four weeks to find out about a problem on the job. Many PMs receive no early warning signs that their projects are going awry, nor can they forecast the final condition of their projects.

In spite of past experience, they are often surprised when an unexpected delay occurs – and can only react by addressing the cause of the delay. Such behavior puts both the schedule and profits at risk. That's why it pays to be seriously proactive about project issues and changes.

HABIT 2 – FORECAST COMPLETION

BiC firms begin with the end in mind. (This is also a Covey concept.) Such firms are always looking at their forecast of total cost at completion and ensuring that project trends are headed in the right direction.

Unfortunately, the construction industry has a history of allowing PMs to become absorbed in “fighting fires” at the

expense of regular, rigorous cost-to-complete assessments. (See Habit 1.) In order to perform a rigorous job assessment, a company must examine not only the lagging indicators of project performance (job cost reports, actual vs. estimate, schedule to date), but the leading indicators as well. This includes reviewing such measures as projected total cost at completion, projected completion date, and projected cash flow and profitability.

KPIs

Executives and project personnel need a dashboard or summary report of those few critical items, known as key performance indicators (KPIs), that quickly give them a picture of a project's status. Here are three indicators that a problem is brewing:

- 1) Profit fade on more than 20% of the jobs completed annually
- 2) More than 50% of jobs with the same cost-to-complete YTD, with significant underbillings
- 3) A consistent occurrence of unapproved change orders that constitute a substantial portion of job profitability

Also keep in mind that in today's business environment, sureties, banks, and outside investors will continue demonstrating a decreased tolerance for profit fade, write-downs, or uncollectible claims. (For more information about KPIs, see “Key Performance Indicators That Drive Value” by Thomas W. Emison in the March/April 2004 issue of this magazine.)

HABIT 3 – PRIORITIZE THE CRITICAL PATH

BiC firms work on the most important activities first and don't let them slip. They know which items they can address later and which need attention right now. They know the difference between those activities that are truly important and those that are less so.

One Example: Project Closeout

Project closeout is one example of an important process that never seems to get the attention it deserves. According to a 2003 FMI/CMAA survey of buyers of construction services, this is one area in which construction firms can improve their performance.



Think about retention. It often runs in excess of a contractor's gross profit and usually in excess of net profit. The value of retention is usually far greater than the value of the punch list.

With so much at stake, how do most contractors handle closeout? Generally, poorly. It drags on and on until so much of the remaining profit is eroded that someone screams "enough!" and forces closure.

Most contractors delegate this task to a superintendent or foreman who was not originally on the job. The original superintendent probably left a lengthy punch list because he knew he wouldn't have to deal with it. And, the new superintendent has no vested interest in closing out the project because it was never his job.

Clearly, this creates a situation where there is no accountability. (See Habit 6.) In order to close out jobs faster and with priority status, plan for them just as you would for mobilization: Set milestones for project closeout and hold the entire project team accountable.

HABIT 4 – COLLABORATE

BiC firms collaborate effectively – they know how to connect people to solve a problem or complete a task. Put another way, it's also about getting everyone on the same page. (Today, there are many off-the-shelf systems available for storing project information. BiC firms know that making the process for getting information in and out of a system easily is paramount to collaborative success.)

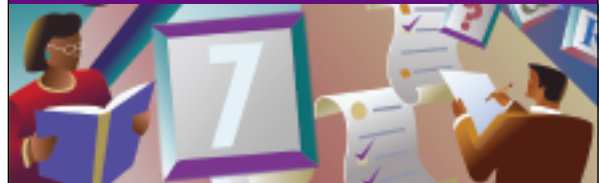
Two Tools

Two critical management tools need to be in place for construction companies to both collaborate and control projects effectively. One is internally focused and the other, external.

The internally focused tool is the consistent approach to the management of projects, from bidding to closeout – in other words, your company's project control system. If this system is undefined or rarely followed, each project will be run according to the whim of each PM. Management consistency will be nonexistent and the learning curve required for every project will significantly impact your company's overhead and general conditions.

The externally focused tool is the similarly consistent approach to collaborating with external parties on a project. Both of these tools are too often applied inconsistently from project to project. Some PMs succeed by soliciting input from subcontractors and others to develop an accurate plan of what is needed to ensure that the job runs efficiently. Consensus achieves buy-in to the schedule and a stronger commitment to its accomplishment.

The Seven Habits Evaluation Checklist



CFMs play a pivotal role in driving a culture that is margin-aggressive. Evaluate which of the seven habits are being demonstrated on your company's construction projects and which ones need improvement.

Here are a few points to keep in mind when evaluating your company's habits.

- ✓ **Team up with other departments.** Create a cross-functional management team to evaluate project practices. The team should include finance, project management, and operations.
- ✓ **Reward honesty during the evaluation.** Senior managers will need to gather feedback from all levels of employees. Avoid creating fear of punishment for not following a certain habit.
- ✓ **Obtain evidence of good habits.** When the feedback shows the team is following a good habit, be sure to understand why. Look for reports, checklists, documented processes, and tools that enable good habits.
- ✓ **When improving a habit, remember that a key ingredient is desire.** Incentives such as recognition, awards, and bonuses for examples of good habits help drive ownership.
- ✓ **Budget for habit-enabling tools.** Whether it's hardware, software, process documentation, or training, funding your initiative is vital.
- ✓ **Benchmark your company.** Compare your results to that of other non-competing construction firms to learn about practices that work for them.

HABIT 5 – COMMUNICATE OFTEN

BiC firms communicate often and in many ways. Different from collaboration, communication is really about how much of the information you communicated was actually heard or understood. We're sure you've said this many times: "Didn't we talk about this at Monday's meeting?"

Obviously, productive meetings are critical to a project's success. Poorly run meetings are a reflection on the PM and your company with regard to how organized a project seems to be and the degree of importance your company has placed upon it.

To be effective communicators, your PMs need to understand that there are many different ways to communicate. Depending on whom they are working with, preferences could include verbal instructions, written memos, e-mails, or a combination of all three.

The Effective Use of Technology

Technology can play a crucial role here, as well. Web-based project collaboration software can be used to speed up the process of project-specific communication. Meeting minutes can be translated into specific action items that drive accountability.

In the Monday morning project meetings, action items can be verbally communicated, documented into the project management system, and then automatically sent as reminders to the responsible individuals. If the action item is not completed by the next meeting, these items are carried forward again, instead of forgotten.

In addition, RFIs, submittals, digital photographs, meeting minutes, and other correspondence can be posted and addressed immediately from any location, creating an environment of enhanced communication for all parties.

HABIT 6 – BE ACCOUNTABLE

BiC firms manage accountability on every project, and their PMs are the business managers for their projects. The best

PMs personally feel that if their project is losing money, they are losing money. If a project has problems, they don't make excuses by blaming the estimator, the architect, or the owner.

Companies can create accountability by having senior management actively involved in the periodic, rigorous examination of job status. This does not mean just a cursory review of project costs; it also includes a narrative of the following:

- Current project status
- Project cost projections compared to budget
 - Schedule update
 - Change order issues and management
- Customer concerns
- Subcontractor performance
- Cash flow status
- Profit projections

Senior management must create the proper atmosphere during these reviews by creating a forum for open and honest communication, rather than recrimination and punishment.

Only then will project personnel feel comfortable enough to share both the good and bad news so that corrective action can be initiated before it's too late. In

our experience, this culture of "no excuses"

is one of the best competitive advantages a contractor can possess.

HABIT 7 – CONTINUOUS IMPROVEMENT

BiC firms are committed to continuous improvement of the preceding six habits. They measure how well they are doing and look for ways to make it better. Popular management concepts such as Six Sigma and Total Quality Management (TQM) have similar messages. (See "The Seven Habits Evaluation Checklist.")

To improve, your company must first define the area that needs improvement, measure its current performance, analyze the relevant data, create ways to improve the process, and then control for adherence to the new process.



The Discipline of “Best in Class” Firms

Organizational discipline comes from processes that are standardized throughout a company and followed by all. This is the beginning of solid project management.

There must be a standardized project control system that reflects the BiC performance for your company. If your staff (including, but not limited to, your PMs) are left to concoct whatever individual systems they can think of to run their projects, then control disappears and management has no baseline of performance expectations to use as a gauge.

This is not about taking away creativity or inhibiting management style. Rather, it’s about having:

- 1) standards of performance (which create consistent expectations for all),
- 2) standardized processes (which eliminates learning curves and improves efficiency), and
- 3) a system of organization (which makes it easy to utilize the “tools” provided).

During the go-go days of the '90s, many companies hired people from different employers and threw them at jobs just to get them built. No one worried whether or not they were following company procedures, and controls were often overlooked.

Now that the market has cooled off, companies are stepping back and evaluating the benefits of a company project control system that is documented and implemented on all projects. With today’s tight margins, squeezing out another point of profit by operating more effectively and efficiently without adding any overhead seems to make sense.

Conclusion

What makes some companies successful in reaching top profit margins, while others remain mediocre? In some cases, it may be more efficient processes; in others, the ability to sell and negotiate better terms and conditions. However, more often than not, it is one word: Culture. Creating a culture that is margin-aggressive is the key.

Set standards where PMs are expected to always meet or exceed profit projections. Create an entrepreneurial environment where project personnel are encouraged to seek ways to improve both project and company performance through a variety of avenues: services that result in a differentiated market position and in repeat business, scope

opportunities that result in additional work and compensation, negotiated terms and conditions that favor your company, and schedule management that minimizes time and, therefore, money.

Finally, develop a company-wide attitude and willingness to consistently practice the seven habits discussed in this article so that your company can be among the “Best in Class.”

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