



BottomUp

TopDown

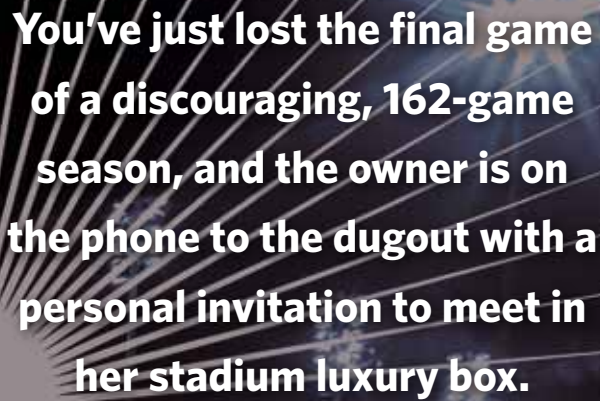


Why Building a Baseball Team (or Acquiring a System) Using Bottom-Up Stats Is a Bad Idea

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The success of the Hollywood movie *Moneyball* is an opportunity to explore a notion of systems acquisition that is significant yet often overlooked: that of the essential, acquisition “team” contributions to be made by “players” known as critical operational issues (COIs), measures of effectiveness (MOEs), and measures of performance (MOPs). While reasons for this oversight vary—ranging from inattention to assumptions of “We already do that”—insufficient attention to these concepts

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nonetheless remains in the acquisition community. Accordingly, the world of baseball and its familiarity to the many “fans” who pack the stands of this nation’s procurement “ball-parks” can, indeed, provide the systems acquisition fan base with a metaphor well-suited to its own team goals.

This article uses that baseball metaphor and a sequence of three scenarios to highlight what baseball fans and system acquisition enthusiasts alike should avoid, what they should embrace, and what they can achieve if they embrace the inspirational play of their COI, MOE, and MOP prospects. So let’s just sit back and enjoy the game, shall we?

If You Want to Be a Cellar Dweller

Congratulations, Skipper! You’ve just been hired as the general manager (GM) of an expansion baseball team, and your first priority is to draw up your inaugural season’s roster. You begin that task with a calculating review of players offered to the expansion draft by older clubs. One by one, you identify promising players you feel should wear the new team’s uniform. Thinking big from the start, you first decide to draft a player for his exceptional onbase percentage, reasoning that an ability to get to the base paths will support your team’s run production and hence its chances for the playoffs and World Series. You next choose a pitcher for his high strike-out-to-walk ratio because you feel that this particular performance statistic says much about the hurler’s value over the long season to come. You continue filling your roster this way, using criteria readily available and appealing to ownership as reflecting desirable qualities and quantities of “goodness” or “desirability.” When done, you’ll ask yourself, “What has the completed roster really given me, the fans, and anyone else with a stake in what I hope will be a winning ball club?”

If you’ve used the full set of skills for which you were hired—probably with a little luck, to boot—your selection process might produce a fair number of wins over the season. On the other hand, a set of selections that is based too strongly on a player’s performance stats such as onbase percentage or strike-out-to-walk ratio will have started your team—and per-

haps a certain truncated managerial career—on an unavoidable march to the cellar. At worst, you’ll have compiled a squad of six right fielders and no one to play third base, or you’ll have provided a home to five starting pitchers but little in the way of a bullpen. Far more believably, but still likely at best, you’ll have pieced together a collection of individuals that fails to coalesce as a team and so fails to satisfy your customer: the fans. In that case, the question you’ll probably ask yourself is, “Should I have trusted the season’s performance to a scheme of team- or system-building that depends so heavily on readily available player-related data at the expense of more appropriate global, team-oriented desires?” Given the worst-case scenario or anything remotely close to it, you may expect the club’s frustrated fans to answer that question for you, in language quite less sympathetic than, “Wait ‘til next year!”

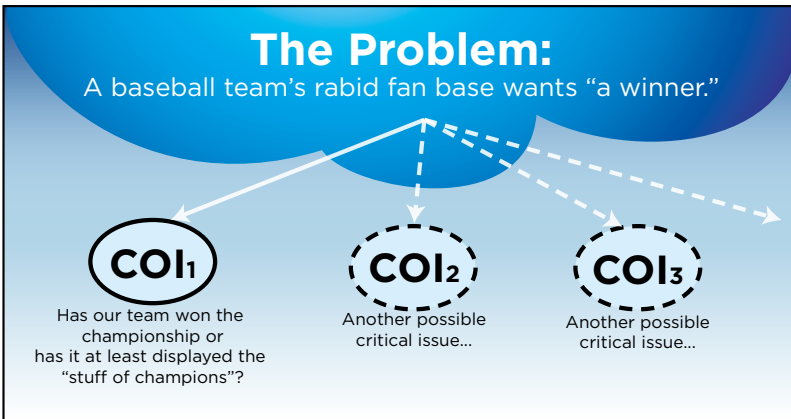
A Call to the Owner’s Box

Congratulations again! You’ve just lost the final game of a discouraging, 162-game season, and the owner is on the phone to the dugout with a personal invitation to meet in her stadium luxury box. Her tone is stern, and you don’t expect the impending conversation to end on a note as upbeat as “Wait ‘til next year.”

The owner is a smart woman who knows firsthand what it takes to be a winner. She understands “Who’s on first” and “What’s on second,” but she finds it almost incomprehensible that you effectively doomed her team’s opening season with an expansion draft effort that failed to claim three particular players who have proven their worth to the teams for which they’ve played. Those players are COIs, MOEs, and MOPs. How could you have expected, she wonders, to build a competitive team using a bottom-up approach that so greatly emphasized personal performance over team performance? “Every fan in the world,” she’s quick to tell you upon your arrival atop the ballpark, “knows how poorly individual stats can translate to team success! What were you thinking?” she adds, before allowing you some breathing room with a gracious, “May I offer you a few suggestions?” You wisely respond in the affirmative, and she proceeds to speak about a set of baseball facts that just happen to be every bit as important to systems acquisition arenas as they are to baseball diamonds.

Building a successful ball club is a largely top-down endeavor emphasizing team-related desires of owners, GMs, fans, and other club stakeholders. In order to meet such desires, a baseball team—or any such system, for that matter—should avail itself of team leaders like COIs and MOEs. While it’s true enough that not a single stakeholder desire will be met without a fielded group of players, the individual qualities brought to the field by those players in no way guarantee that the team will succeed. They simply are what they are and will prove to be of value only if smartly exploited within the reality of team play. That is why personal stats like batting average are MOPs that, while undeniably important, shouldn’t drive any GM’s show. “Understand, Skipper?” she concludes. “If so, good, because as Costello said to Abbot, ‘That’s what I’m saying!’”

Figure 1: Baseball Fans' Problem and COIs



average) or unquantifiable (team chemistry). These would represent the MOEs by which fans could decide whether or not they've given their allegiance to a championship caliber ball club. Should a season of play yield a high average number of runs scored per game, an infield's worth of Golden Gloves, or a palpable sense of team chemistry, even the most ornery fans must concede that they had and adopt a "wait 'til next year" attitude. In such cases, fans would have seen the "proof in the pudding" of their MOEs, that pudding being the end product of individual recipe ingredients—the personal or team-wide stats that would be MOPs—smoothly blended to deliver a desired result.

Giving the Fans What They Want

Congratulations once again, GM, though maybe for the last time. Your team's owner has just granted you a 1 year reprieve in the hope that your second year will be better than your first. You aim to take full advantage of the opportunity to give the fans what they want and so, prior to the coming season's spring training, you wisely trade away a future round draft choice and undisclosed sum for COIs, MOEs, and MOPs. In doing so, you've set course for a final scenario far more pleasing to everyone than the first two, and here's why.

You well know that your team's rabid fans feel the need for—that is, they identify the challenge of building—a "winning" ball club. Moreover, as shown in Figure 1, they may characterize "a winner" in terms of some number of critical operational issues—among them, a wish that their system of interest bring home a championship pennant or at least perform in a manner the fans could shamelessly claim to be "championship caliber." Because of the importance of COIs to stakeholder desires, when championship ways fail to emerge during the course of a season, fans are forced to admit that their beloved system simply didn't cut the mustard. In other words, they'd concede an unresolved COI and next demand improvement (or even wholesale replacement—including you, Mr. GM—if diehards get their way) during the ensuing offseason. Would fans know if their COIs, their "must-haves," had been satisfied? Moreover, would they be able to measure and thus recognize the "stuff of champions" hopefully displayed by their heroes? The answers to those questions are "Yes" and "Yes," and that's exactly where MOEs, MOPs, and Figures 2 and 3 come in.

Fans hoping to watch their club demonstrate championship play might quantitatively or qualitatively judge their team in terms of variable markers of baseball excellence (Figure 2), either quantifiable (runs scored per game, team batting

Quite unlike the MOEs that should be viewed as variable, sliding-scale standards oriented toward stakeholder perspectives of goodness or desirability, MOPs should be treated as the points on such scales at which stakeholders may determine how good or desirable might be the outputs of their system of interest. The fans of a particular team, then, should view outputs such as "starting line-up," "strength of schedule," and "opponent" as precisely the sorts of performance evaluations they could use to judge team effectiveness against established standards, or MOEs (Figure 3). In doing that, they would have employed MOPs in concert with MOEs to determine, in strict "thumbs up" or "thumbs down" fashion, whether their team had displayed the stuff of champions and consequently resolved a critical fan issue.

Play Ball!

It's easy to see, Skipper, why you could have been seduced by readily available and appealing MOPs; and just as easy to see why, therefore, you built your first-year team from the bottom

Figure 2: MOEs Derived from Baseball Fans' COIs

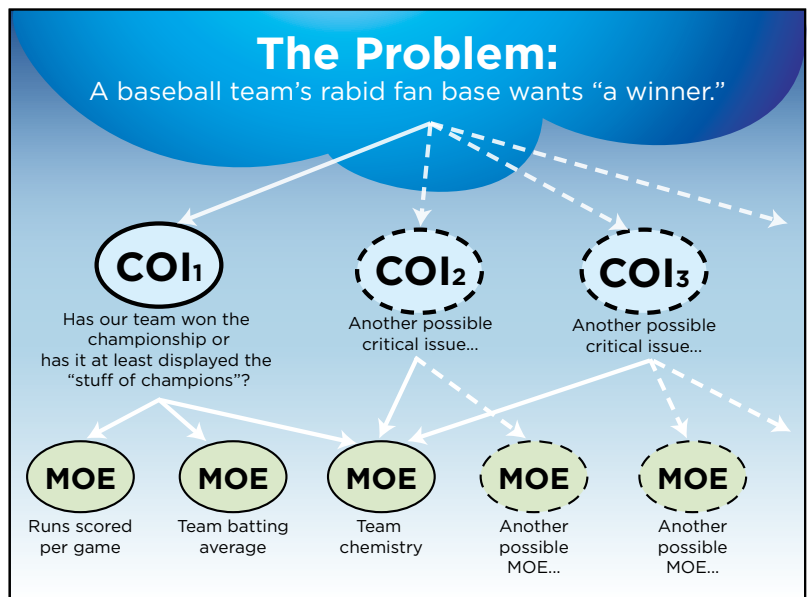
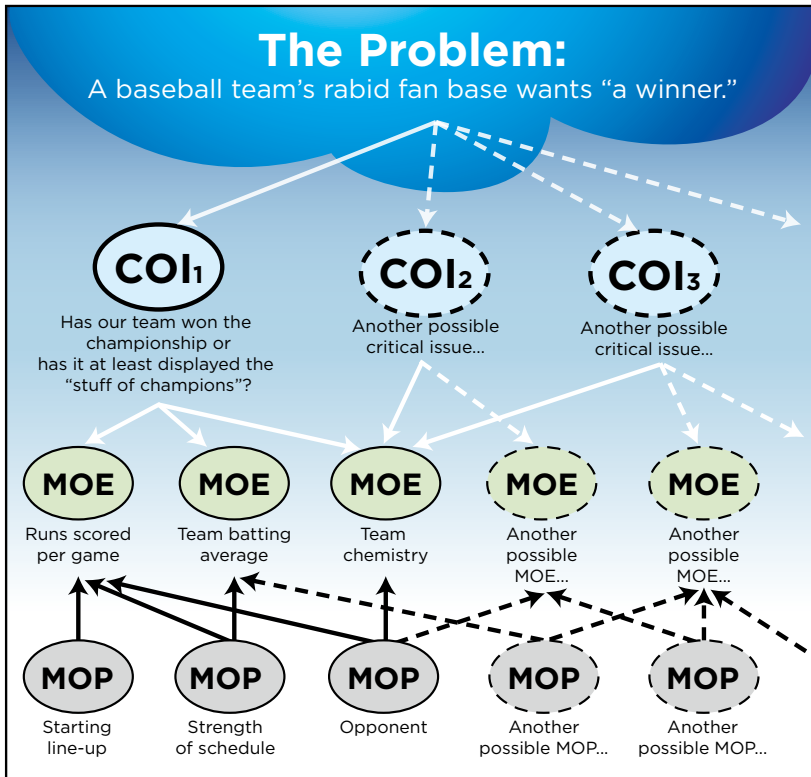



Figure 3: MOPs Selected for Evaluation against Baseball Fans' MOEs



Building a baseball team and meeting a systems acquisition need should each be largely pursued as a top-down endeavor. In no other way will the desires of "fans" or other stakeholders gain the prominence due them. To build a team of champions, look beyond home runs. If you don't, you'll lose sight of the equal merits of a strong bullpen. Likewise, you can't meet the command and control (C2) desires of a security force by focusing too strictly on, say, unmanned surveillance vehicles, because, valuable though they are, these glamorous assets represent only a fraction of any C2 equation. You, Mr. or Ms. Acquisition Professional, like your cousin who manages in "the bigs," must think top-down and act on measurement schemes that are top-down—never bottom-up.

So play ball and play it well. Like the GM of this article who yearns to serve his team's fans to the best of his ability, acquisition agents need to always bear in mind the criticality of what they do to those they serve. Remember that for those hoping the agents' products will do what's needed, it really "ain't over 'til it's over."

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up. The team's owner recognized this, recognized the merits of giving to you the same sort of coaching you typically afford your players, and consequently put you back in the saddle for at least one more season. So don't blow it!

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