



Attributes of an Effective Product Support Business Case Analysis

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Never in the field of acquisition was so much requested by so many with so few dollars.

This play on Winston Churchill's famous Battle of Britain quote reflects the recent history of America's expectations for national security coupled with an austere budgetary environment. This raises the question, "How do we achieve what we need to within a context of diminishing resources?" The answer lies in finding efficiencies, relying on value-based decision making, understanding trade-offs' second-order effects, and managing acceptable risks. Business case analyses (BCAs) powerfully deliver all these benefits.

The April 2011 DoD *Product Support Business Case Analysis Guidebook* (<https://acc.dau.mil/bca-guidebook>) represents the harvested fruit of many years of difficult, complicated efforts in establishing and understanding the

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product support related decision-making processes and materials through which DoD senior leaders maneuver. One of the most complex and impactful decisions within the Acquisition community is the development and execution of major weapons systems' sustainment strategies. As a reaction to new statutes and past GAO reports, the Department put forth the *BCA Guidebook* to address concerns and satisfy decision makers' needs for high quality decision support tools. DoD has successfully applied the principles within this guidebook to a myriad of decisions ranging from beach front land development, to total force integration manpower efficiency studies, to 5th generation fighter sustainment strategy development.

What is a BCA?

No matter the subject, the BCA's fundamental structures and attributes remain consistent with any professional analytical study. In its most basic form, a BCA is any non-advocate, objective, transparent analysis of the benefits, costs, and risks of multiple options. This type of analysis is the best way to identify satisfactory responses to a given problem statement. Although DoD organizational structure is aligned toward functional roles, the BCA structure necessarily crosses lanes. The BCA accomplishes and integrates analyses across multiple, simultaneous fields while leaving no subject off limits. It must be comprehensive and strategic in structure in order to paint as complete a picture as possible for the decision maker.

An informed customer is a better customer. The BCA analytical, governance, and staffing processes provide department-wide opportunities for increased understanding and education. Learning occurs and spreads in both directions from a BCA such that subordinates more quickly identify an optimum course of action, while senior leaders blend information across diverse subject areas. This allows decisions to effectively account for both the cost of something, as well as the course of action's beneficial return. Field-level personnel learn on-the-job skills by executing the BCA, and headquarters governance

bodies and senior leaders can learn from the cross-pollination of ideas and analytical outcomes to impact their own organizations and the enterprise as a whole. The BCA tells a story of possibilities; after all, it is not an audit of past performance but a decision-support function focused on future activities. These possibilities though, ripple through geography, time, and organizations. It is up to the BCA team, working in tandem with strategic level senior thinkers, to explore and assess BCA alternatives' effects on other organizations and agencies across the enterprise.

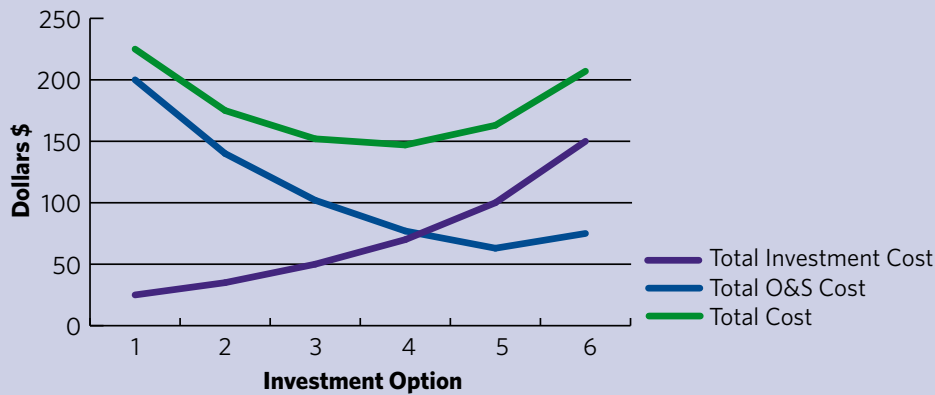
For example, one such high-profile aircraft-sustainment BCA showed tremendous savings to the taxpayer across a number of alternatives. The recommended alternative included a shift in who performed the maintenance work and, subsequently, a shift in how the same tasks were ultimately funded. While the activities remained mostly constant, the organization structure itself provided the roadblock to executing a plan that would net the taxpayer savings of over \$100 million a year for 2 decades. The BCA analysts identified this scenario but also recognized the essentiality of senior DoD leadership working across functional areas, without which the savings and execution plan could never be enacted. A cost of manpower increase in one Service would drive a Service bill increase but would subsequently drive down rates and costs of doing business for other Services. The successful balancing of changes and savings across Services to functionally pay for the shift in work required all three Service departments, OSD(AT&L), comptroller, as well as OMB and congressional involvement. Through this example, personnel throughout the chain of command witnessed how their portions of the process are interwoven and connected throughout the entire DoD enterprise. It's interesting how all of this essentially came from studying who should turn wrenches on a single Service's aircraft.

That example highlights the strategic and operational implications of a BCA, but BCAs perform an important role at the tactical level too. They often highlight capability gaps and areas for improvement in a relatively non-threatening environment. A BCA is not an official audit, source selection decision document, or punitive exercise but an internal decision making process and document to inform strategic decisions to be made by senior leadership. This provides an opportunity for the subordinate organization and people to evaluate their value proposition while simultaneously assessing their work and products in the context of the greater Department and national security structure as a whole.

What is a Good Decision?

A good outcome does not mean the decision was a good one. As an example, winning the lottery does not mean that buying lottery tickets was a sound and logical method of planning for retirement. Sound decision making occurs when a repeatable, best-informed decision is made from an objective perspective. Good decisions are those that when taken on the whole and over an extended period produce better results than decisions made in an uninformed manner or using "gut

Figure 1. Trade off Analysis



The Department's decision makers now have a process that includes governance, continuous updates, enterprise perspectives, and standardized methodology, while also allowing for the flexibility required by an organization and subject matter as diverse as the DoD acquisition community. The process is not so rigid that ACAT 4 programs must follow ACAT 1D DAB (Defense Acquisition Board) governance requirements; yet even small-scale decisions should have some reviewing process. Furthermore, the BCA

feeling." Since making a half-court shot in basketball does not justify all follow-on shots coming from half court, neither should one successful decision made "on the fly" justify the decision maker generating all decisions in an uninformed, knee-jerk manner.

Understanding the retirement and basketball analogies, the institutional purpose behind the BCA process begins to take shape. The Department makes countless decisions, impacting hundreds of billions of dollars each year. Some of these decisions are good decisions with negative consequences; some decisions are poor decisions with positive outcomes. The BCA process doesn't remove uncertainties, risks, and undesired outcomes from reality, but by increasing the knowledge base among those making and supporting the decision, those uncertainties become less uncertain, the risks are better prepared for, and overall undesired outcomes occur less frequently.

Objectivity Rocks!

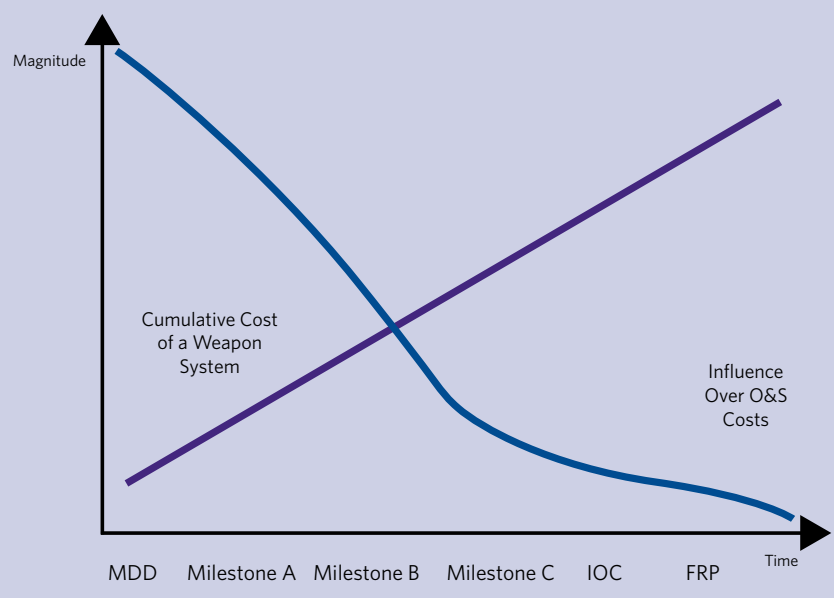
Besides informing decision makers who are potentially setting the strategy for the use of billions of taxpayers' dollars over many decades, the BCA process itself provides additional benefits not necessarily measurable in terms of money. The credibility of the BCA derives from the transparency, independence, and fully documented attributes the DoD *Product Support BCA Guidebook* describes. The BCA is not a report intended to substantiate a decision that has already been made. Although a recent statute (National Defense Authorization Act 2010, Section 805) uses the term "revalidate" in describing sustainment strategy BCAs, this is in reference to the BCA itself. Assumptions, data sources, constraints, environmental factors, and the like are components and inputs to the BCA that justifiably, and now statutorily, must be updated at regular intervals.

expects positives and negatives to be presented for all alternatives, including the recommendation! Given that a BCA is not a persuasive paper, decision makers should be presented not just the positives of the recommended course of action, but also the challenges, issues, risks, and problems.

Get Out and Be Seen

The objectivity of the analytical team and the BCA is best judged at the point of conclusions and recommendations, where the explanations and descriptions of the findings and overall best course of action are thorough and without hyperbole. The best summaries don't just make a recommendation for one alternative but also discuss the trade space around multiple alternatives. A well-communicated recommendation presents highlights and weaknesses in a way that lets the decision maker choose the best option for himself or herself, rather than the option that the analytical team concludes is the best

Figure 2. Relationships between Time, Ability to Influence O&S Costs, and Cumulative Cost of a Weapon System



decision. A realization of the BCA process finds that the final decision maker often does not have time to participate within governance boards or on BCA workshops. He or she relies on these steering committees and activities to get the BCA in the ballpark of the right answer. Once in the ball park, senior decision makers then bring in their own perspective, experience, and insight to settle on the ultimate solution.

Now armed with this objective supporting analysis and clear and concise rationalization for their decision, leadership has the paper trail for substantiating and explaining their position. Rarely does a multi-billion-dollar decision not generate questions. The Department now has the documentation that traces the final decision all the way back to the analytical building blocks and inputs.

Beyond using the BCA as a mechanism for answering outside scrutiny, the BCA is also used within the organization. The recommendation section is robust enough to help explain the philosophy and the "why" behind each alternative. The entire document is a repository of data sources, methodologies, and

explorations of alternatives of such thoroughness that it can inform follow-on work years later. This traceability enhances continuity and breathes efficiencies into future efforts that are no longer wasting time, reinventing the wheel.

Conclusion

From identifying optimal solutions, balancing benefits, costs, and risks, to generating a document trail to serve as a basis for future work, the BCA process and report is the optimal decision-support tool within DoD. The process, governance, and communication are standardized and flexible while adhering to principles of analysis that are logical and inherently intuitive. The Department's need to squeeze every bit of value out of every dollar has never been greater. Nor has the internal and external scrutiny of decisions ever been closer. With the DoD *Product Support BCA Guidebook*, we now can focus on the possible decision rather than the way the decision came about. In the process, the warfighter, the program office, and the taxpayer all come out winners.

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