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Strategic Planning and Management in Defense Systems Acquisition

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Strategic Planning and Management in Defense Systems Acquisition

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Abstract

Strategic Planning and Management (SP&M) methods are widely used in the commercial sector and are a required organizational activity within the U.S. Government. More specifically, defense acquisition organizations use SP&M methods to strengthen the management of defense acquisition organizations/programs. This article reports results of a survey of the defense acquisition community that assessed how SP&M methods and practices promote management effectiveness. The results show that SP&M is viewed as valuable to Department of Defense systems acquisition programs and organizations. Moreover, this effort identified high-value activities, tools, processes, practices, and common roadblocks to effective SP&M. These results imply that training on processes and tool use can be very important, especially for senior leaders, and implementation assistance can also be useful.

Introduction

For the purpose of this effort, Strategic Planning and Management (SP&M) is a set of processes that includes strategic planning, where managers jointly formulate their strategy; and strategic management, the implementation or execution of the strategic plan. These two processes, formulation and implementation, are both mutually essential. Planning without implementation is useful, but fruitless; implementation without planning is chaotic.

Based on those definitions, SP&M has the following key characteristics:

- Positions the organization through strategy and capability planning;
- Responds to real time strategic issues; and
- Tackles systematic management of resistance during strategic implementation.

Strategic planning, according to Dr. John Bryson (2010), offers many benefits to public-sector organizations:

- Promotes strategic thinking, acting, and learning;
- Improves decision-making;
- Enhances organizational effectiveness, responsiveness, and resilience;
- Improves organizational legitimacy; and
- Benefits people directly involved.

Bryson (2010), a strategic planning researcher from the University of Minnesota, states, "Evidence indicates that when strategic planning is seen as a practice that is improved by reason-based advice, it is one of the very useful ways in which imperfect people can cope pretty well with ... 'insoluble' problems."



A growing number of studies indicates that strategic planning works in a variety of situations, and that successful linkage to strategic visioning, long-range planning, budgeting, and implementation promotes organizational and technological innovation. Strategic planning has become ubiquitous in the public sector over the past 25 years—with extensive practical experience in managing effective organizational change in general, and with strategic planning in particular—and has proven its value (Barzelay & Campbell, 2003; Berman & West, 1998; Berry & Wechsler, 1995; Boyne & Gould-Williams, 2003; Bryson, 2004; Campbell, 2000; Friedman, 1987; Mulgan, 2009; Wechsler & Backoff, 1987).

In fact, the recognition is evolving that transition is needed from strategic planning to the broader process of strategic management, which focuses the organization on implementation of the strategic plan. According to Theodore Poister (2010), strategic management promotes effective strategy implementation, is ongoing rather than episodic, and focuses on achieving strategic goals and objectives rather than on measurement. In fact, evidence indicates that performance monitoring through measurement informs strategy (Moynihan, 2008).

The effectiveness of modern strategic management methodologies has been well documented (Eden & Ackerman, 1998; Meier & O’Toole, 2002; Nutt & Backoff, 1992; Poister, Pitts, & Edwards, 2010). Schmidt (2009) has written extensively about the benefits of applying strategic management principles to project management. These practices help address key issues, including

- What are we trying to accomplish and why?
- How do we measure success?
- What other conditions must exist?
- How do we get there?

The work of Rollinson and Young (2010) identifies key principles for successful strategic management and identifies a comprehensive process for the implementation of these principles. Their discussion of strategic management competencies applies to defense acquisition organizations and programs:

- Identifying, articulating and developing a core set of shared values;
- Visioning;
- Strategic thinking;
- Identifying and developing core organizational competencies and capabilities;
- Converting information into strategic intelligence;
- Identifying, evaluating, and selecting strategic alternatives; and
- Team work and team building.

Situation

The Department of Defense (DoD) is responsible for effectively using taxpayer dollars to field systems that enhance national security. And the department is constantly striving to find ways to improve performance. Of course, DoD leadership rightly stresses that budget reductions are prompting “doing more with no more” (at best). This is why, among other things, lessons learned from best practices are being emphasized (e.g., Better Buying Power initiatives).

Defense systems acquisition is inherently a strategic activity. For example, acquisition programs by definition support organizational (and national) strategies, have



long-term implications, and, in general, help create the future. Major acquisitions, in addition, are key to organizational (and national) success, employ significant resources, and command top-level oversight.

Strategic planning and management is key to program acquisition success, both in terms of program success and the success of management organizations. All defense acquisition programs and organizations must succeed in a dynamic environment, with constantly changing requirements, priorities, resources, and other challenges (Schwartz, 2004). This dynamism is the factor that impels the community to apply the best strategic management practices.

For these reasons, we must apply the best strategic management tools and processes to defense systems acquisition activities. Along with other management tools and processes, SP&M should be done well for optimum defense acquisition outcomes.

Methodology

To better understand what practices are succeeding in this community, the Defense Acquisition University (DAU) invited over 3,000 defense systems acquisition personnel who had attended DAU West Region 300-level acquisition courses in fiscal years 2008–2011 to respond to an online survey. These more experienced acquisition professionals were likely to have been exposed to the concepts outlined in the research. A broad cross section of acquisition personnel with experience and strategic management expertise were queried for both qualitative and Likert-like quantitative responses. The e-mail invitation explained that the researchers were interested in pulsing professionals with SP&M experience.

Responses were received from 412 survey respondents who represented a wide range of Army, Navy, Air Force, and other Defense Department programs and acquisition organizations. Approximately a third of the survey respondents had more than 15 years' experience in acquisition management, with significant experience using strategic planning and/or strategic management methodologies. Responses from participants who indicated no strategic planning or strategic management experience were removed from the survey response data analysis, leaving 295 qualified responses from the population of interest.

After identifying each respondent's organization, program, position, certification level, and experience with SP&M, the survey assessed the perceived usefulness of a wide range of common tools used for SP&M. Both roadblocks and facilitating factors for effective SP&M were identified, as well as the types of resources needed for effective SP&M. Finally, the survey assessed the overall perceived value of SP&M in defense systems acquisition, as well as specific organizational and program benefits.

Since the intent of the survey was to understand the use of strategic planning and management methodologies in the Defense Department, no private sector inputs were solicited or received.

About 24% of the respondents currently hold program manager (PM) or deputy PM positions. Another 23% hold positions as functional leads. The remainder comes from a wide array of program office positions.

Respondents also represent a wide cross section of functional areas, although the largest group (33%) is in program management. Other well-represented functional areas were life cycle logistics (16%) and systems engineering (16%). Each of the other functional areas comprised less than 10% of the respondents.



Roughly 50% of the respondents were certified at Defense Acquisition Workforce Improvement Act Level III, with Levels I and II represented by about a quarter of the respondents each.

Findings

Somewhat surprisingly, many (approximately one third) of the DoD acquisition professionals that participated in this research project have private-sector experience using strategic planning and management. Their responses highlight many ways in which strategic planning and management considerations in the DoD are both similar and different from those in the other sectors.

Similarities include the observations that there is often a wide gap in understanding of strategic factors between top and working levels, coupled with micromanagement and multilevel approvals in both defense and nondefense organizations. In both types of organizations, participants must comply with specific guidance from others, and decisions often involve big dollars, long timelines, and complex programs. Survey respondents also identified that in both types of organizations, leadership shortcomings and inexperience can impede effective strategic planning and management, and that it is not uncommon to encounter many uncertain, contradictory, and frequently changing factors, including funding, policies, priorities, requirements, and threats.

On the other hand, defense acquisition managers and leaders face some fairly unique challenges. Being responsible to taxpayers is different from being answerable to shareholders, especially since the purpose of defense acquisition activities is national security, not profit- or market-driven considerations.

In fact, respondents noted that sometimes performance must be achieved at all costs, and some situations can have life-or-death implications, including the use of nuclear weapons. Defense acquisition is influenced by national politics and must comply with unique federal regulations, policies, and processes, which involve requirements, budgeting and funding, acquisition/procurement methods, and personnel management issues, including drawdown.

Strategic planning is widely practiced in the defense acquisition community. About 70% of the survey respondents reported that their organization has a current strategic plan (although about 20% weren't sure).

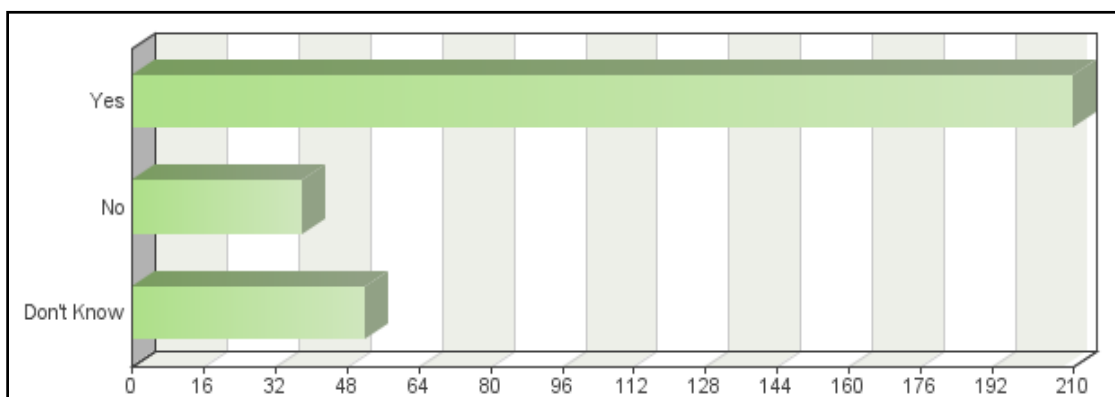


Figure 1. Does Your Organization Have a Strategic Plan?

Of the 70% of respondents with current strategic plans, about 90% use their strategic plan for either organizational improvement (27%), program management (19%), or both



(44%). When asked a broader question about the use of strategic planning and/or strategic management methodologies in general, only 16% indicated its use for organizational improvement, whereas over 25% use these methods for program management. Moreover, the use of these methods for both organizational improvement and program management grew to 47% of the survey respondents.

These results indicate that although strategic planning/management is commonly used to guide organizational development, its frequent use for program management suggests that this is a potentially fruitful area in which to seek opportunities for improvement and cross-community sharing of best practices.

While these results indicate that strategic planning and strategic management methods are being widely applied by the respondents, and, by inference, across our community, it's also useful to understand the respondents' satisfaction with the use of these practices. Although virtually all respondents indicated that they found some value in use of SP&M methodologies, about half of them indicated they highly value these methods for improving program outcomes (a Likert score of 6 or 7 on a 1–7 scale).

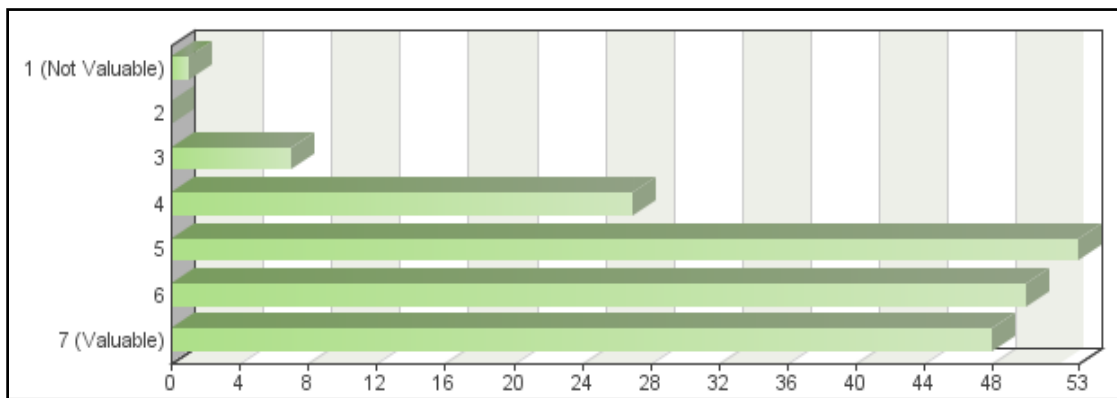


Figure 2. Overall, How Would You Rate Strategic Planning and Management Methodologies in Improving Program Management Outcomes?

The nature of the value provided by use of SP&M methods is quite broad in this community. The most commonly identified benefit, expressed by a full 85% of the respondents, was better communications. Closely following that were increased internal efficiencies (76%), organizational performance gains (69%), major changes to business practices (45%), and increased external efficiencies (37%).

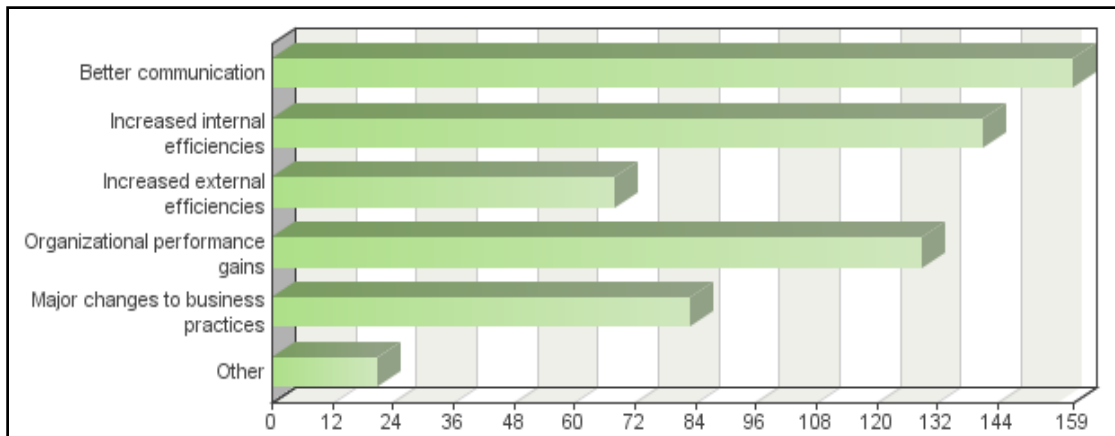


Figure 3. What Specific Benefits and Outcomes Are Associated With SP&M in Defense Systems Acquisition?

For the specific respondents who gave the highest ratings to the usefulness of SP&M in improving program outcomes, increased internal efficiency and better communications were the most often cited benefit, followed by gains in organizational performance.

- Many other specific benefits were mentioned, verbatim:
- More efficient execution of funds,
- Helps solidify the resources toward a common goal and priority taskings,
- Improved personnel morale,
- Conserves resources by industry and government working together,
- Team effectiveness,
- Better links to future requirements for Program Objective Memorandum and resource planning,
- More knowledgeable workforce,
- Portrays the organization's strategic contributions to national defense,
- Reduces waste, lack of focus, and duplication of effort,
- Gives vector in highly distributed organizations,
- Increases focus on the important vice the urgent,
- Direct, measurable bottom line results,
- Collaboration and coordination with other program management activities,
- Leadership,
- Provides a good roadmap, and
- Prepares agencies during Base Realignment and Closure activities.

The respondents identified a wide range of factors that facilitate effective implementation of strategic plans, including leadership; stakeholder/participant involvement; a common understanding of the vision, mission, strategic intent and strategy, based on clear, unifying goals and objectives; and, of course, effective communications. In the latter category, specific aspects of communications that were mentioned included documented requirements; clear priorities, issues, and plans; listening to everyone's ideas; leadership's articulation of employees' contribution; and a clear format for published products.

A large number of leadership factors were cited, including



- Vision
- Follow through
- Commitment
- Resources
- Involvement/interest
- Buy-in
- Understanding
- Communication
- Implementation
- Attitude

This last item captured a variety of comments such as the assertion that implementation should not be just a “check-the-box” effort; that PMs should take a long-term approach, not day-to-day churn; that management should play a part in the development of strategic planning so that they will understand their roles, their employees’ roles, and the importance of execution; and that pressure should be exerted from above to use the tools available to effectively implement these processes.

All the factors just mentioned aren’t surprising, and are consistent with well-understood best practices in applying SP&M methodologies. However, a number of other factors were raised that also merit further consideration. These include the following (in no particular order):

- Ensuring proper training and leadership classes to retain a knowledgeable workforce;
- Positioning a full-time facilitator/in-house expert;
- Instilling continuity, including having a living document; persistency (“don’t change halfway through”), transition into sustainment, continuity through leadership changes, and maintaining consistent direction;
- Having a good governance structure (objective owners, quarterly reviews);
- Ensuring appropriate, stable resources, including time to commit to planning and implementation, and funding;
- Taking the time to do a good job (“When done properly, strategic plans can be very effective, but most managers/leaders get impatient”);
- Showing direct impact to participants, with incentives;
- Encouraging effective teamwork;
- Paying attention to cultural change, including frequent use of SP&M and constant monitoring and follow-up;
- Cultivating a practical attitude, including open mindedness and willingness to face the brutal facts;
- Seeking perspective, including understanding the value streams of the organization’s products and services, and the global impacts, political climate, and funding associated with the effort;
- Establishing executable processes up front;
- Having a plan above you to lash up to;
- Integrating with other project management disciplines;



- Assessing direct measurable impact to the organization; and
- Making your customer successful.

Next, participants were asked to rate a number of commonly used SP&M tools and methodologies, and to identify other tools that they have found useful for SP&M. From this survey, the most useful tools (and the primary use to which they were put) were

- Action plans, used to establish priorities and clarify expectations;
- Root cause analyses, used to establish priorities and lower cost;
- Mission/strategy mapping, used to align the organization;
- Brainstorming;
- Program analysis/assessment, used to establish priorities;
- Needs assessment, also used to establish priorities;
- Strengths, Weaknesses, Opportunities, and Threats (SWOT) analyses, used to establish priorities;
- Stakeholder interviews, used to clarify expectations; and
- Vision statements, used to clarify expectations and align the organization.

These “most useful” tools were highly rated (Likert 6 or 7 on a 1–7 scale) in over 50% of the responses.

For the respondents who gave the highest ratings to the usefulness of SP&M in improving program outcomes, the highest rated tools were

- Program analysis/assessment, used to establish priorities and improve alignment;
- Needs assessment, also used to establish priorities and clarify expectations;
- Mission/strategy mapping, used to align the organization and establish priorities;
- SWOT analyses, used to establish priorities and clarify expectations; and
- Action plans, also used to establish priorities and clarify expectations.

Interestingly, some of the least useful tools were company proprietary software, force field analysis, and environmental scans. This last factor is somewhat confusing since reviews of the regulatory environment and reviews of industry trends (which would be included in an environmental scan) were more widely used. Perhaps the term *environmental scan* wasn't familiar to respondents. Further discussion with the community may clarify this ambiguity.

Other tools that were rated, but which fell somewhere in the middle on the usefulness reports, included scenario planning, Balanced Scorecard, use of process consultants, and use of industry experts/futurists.

Respondents also mentioned a wide range of other specific tools that they are using to facilitate SP&M in their organization. These responses are listed in Appendix A in no particular order or grouping. DAU plans to further investigate these tools to understand which would be most appropriate to incorporate in structured SP&M training for wider use across the defense acquisition community.

When survey participants were asked to identify the biggest roadblocks to effective SP&M, the top three were lack of time, lack of management commitment, and lack of follow-



up. Less pressing, but still notable roadblocks included lack of expertise, lack of funds, lack of training, and ineffective tools.

For the respondents who gave the highest ratings to the usefulness of SP&M in improving program outcomes, the lack of management commitment was the roadblock most often cited, followed closely by lack of time.

The respondents were also given the opportunity to identify other roadblocks to effective SP&M they have encountered, which are listed in Appendix B in no particular order or grouping.

The usefulness of specific resources for effective SP&M was also measured. The most useful resources were internal staff and the respondents' own personal research into SP&M; funding communities of practice and tool experts were also found to be somewhat useful. Least useful were external process consultants and external meeting facilitators. However, even for these less useful resources, about 20% of the responses indicated that they were very useful (Likert 6 or 7 on a 1–7 scale). In short, all these resources can be important for effective SP&M.

For the respondents who gave the highest ratings to the usefulness of SP&M in improving program outcomes, the use of internal staff was cited much more often than the use of external help. This would seem to indicate that training our organic resources to conduct effective strategic planning and management would likely have more impact than relying on external consultants.

In this context, it is interesting that the great majority (69%) of respondents indicated that they plan to use SP&M tools and methodologies in the future, although two thirds of this community have either no resources committed or are unaware of resources committed for future SP&M.

The survey also identified significant interest in additional training and education of SP&M topics. Two thirds of the responders indicated interest in additional training in SP&M tools and processes, and over 75% would like to learn more about best SP&M practices for defense acquisition organizations and programs. The most often cited tools for which additional SP&M training was recommended were

- Program analysis/assessment
- Needs assessment
- Mission/strategy mapping
- SWOT analyses
- Root cause analyses
- Balanced Scorecard
- Stakeholder interviews

Summary

The data collected in this analysis indicate that SP&M can be highly valuable to DoD systems acquisition programs and organizations when employed by experienced practitioners and managers. Moreover, specific high-value activities, tools, processes, and practices have been identified, as have common roadblocks to effective SP&M. Clearly, the data reflect that for SP&M methods to be successful, acquisition organization leaders must understand the importance of their use. Moreover, tool use and process training are needed widely within the community, especially for senior leaders. From these observations, a



conclusion can be drawn that implementation assistance can be very useful and should have significant payoff in terms of organizational effectiveness and program management success.

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Appendix A: SP&M Tools Being Used By the Defense Acquisition Community

Business intelligence

Dashboards

Well-prepared offsites

Discovery-Driven Plan/Discovery-Driven Growth

Army Strategic Management System

Probability of Program Success (PoPS)

Systems2Win, including LEAN and Six Sigma tools

Continuous Process Improvement

Objective risk-based threat/issue assessments

Analysis of Alternatives tool (PMT 350)

7- or 9-Step Standardize-Do-Check-Act (SDCA)

X-matrix

Winsight/Project

QuickScore (Spyder Strategies)

Capability Maturity Model Integration (CMMI)

Quality Function Deployment

Design of Experiments

Bottom-to-top communication

Logistics elements review and development

Hoshin planning

Risk Analysis

Issue- or Action Item-based program management software

Project Management tools, practices, and processes

Contract negotiation consultants

8-Step Problem Solving

Define, Measure, Analyze, Improve Control (DMAIC)

Campaign Planning Process

Plan of Action and Milestones (POAM)

Assumption/strategic risk analysis (integrated with other project management disciplines)

Objective assessment of value-added for various DoD acquisition processes

Organizational climate survey

Prerequisite Trees

Conflict Diagrams

Root-Cause analysis



Voice-of-the-Customer feedback
Business Case Analysis
Theory of Constraints
Integrated Computer Aided Manufacturing Definition for Function Modeling (IDEFO)
Current Reality Trees/Maps
Future Reality Trees/Maps
Injection Maps
Competency-based toolsets/planning processes (e.g., Lominger)

Appendix B: Roadblocks to Effective SP&M

Ineffective metrics

Senior leadership (PEO/PM) disagreement about strategy
Lack of stakeholder/employee buy-in
Lack of business and organizational management background and experience
Lack of senior-level vision to require strategic planning
Getting commitment from assigned personnel
Lack of personnel trained in acquisition disciplines
Poor communication
Lack of cohesive vision
Command attitude (crisis management, don't make waves, not invented here)
Culture of "zero mistakes"
Management distraction
Unpredictable/erratic congressional budgetary direction
Contracting timelines
Use of inappropriate models (e.g., aircraft in space acquisition)
Jaded members of the organization (regarding strategic plans)
Unrealistic timelines
Working outside of "requirements"
Mid-management reluctance to change (not "real work")
Personnel commitment degradation due to congressional attitudes; low morale
Too many inefficient legacy processes
Unforeseen external drivers that derail plans
Inability to match time, expertise, and funds
Inadequate internal controls
Overwhelming burden of oversight and reporting



Difficulty in tracking strategic improvement
Competition among organizations to “be the solution”
Constant reorganization (Navy)

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