

# The Enterprise Triple Constraint

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he equilateral triangle has long been a symbol of balance and parity when depicting interrelated success factors. The well-known project triple constraint of scope, schedule, and cost emphasizes that changing or neglecting one of three basic factors will affect at least one of the other factors, and action-oriented decisions will be needed. This article broadens that concept to cover the enterprise as a whole and defines the triangle as strategic planning, business analysis, and program/project management. The result is a blueprint for promoting traceability from projects to programs to portfolios to strategy, thereby linking tactical deliverables to enterprise-level outcomes and benefits.

The significance for the project team is threefold. First, understanding the context of the enterprise triple constraint orients the team in both the long-term and short-term dimensions of the project. This greatly enhances identification of optimal solutions based on total cost of ownership. Second, the interdependence of the three constraint elements compels the team to be proactive rather than passive or reactive in connecting overall objectives with specific deliverables. This means that the project team must raise difficult or even unpopular topics, such as why and how the project or program fits the organizational strategy. And third, the need for mutual clarity at the organizational and initiative levels puts the project manager (PM) and business analyst (BA) squarely out front as key interpreters

and communicators for the team. Stakeholders across the organization all have different perspectives and insights. The PM and BA are key to understanding and enhancing successful interaction among these stakeholders.

# Constraint # I - Strategic Planning

The strategic mission, vision, goals, and objectives of an organization define the context for all initiatives. *Mission* clarifies the purpose of the enterprise—i.e., why it exists. *Vision* defines the overall level of performance and results that the organization strives to reach; it sets the direction and timeframe for all new activities. *Goals* highlight incremental levels of improvement that are key to achieving the vision. *Objectives* refine the goals into discrete, measurable building blocks for progress that typically generate one or more projects. Together, these elements of strategic planning and analysis facilitate the following decision-making elements:

- linking individual project and program deliverables to long-term outcomes and organizational benefits;
- prioritizing and ranking each candidate project or program based on alignment with goals and contribution to objectives;
- developing a business case with cost-benefit analysis for each proposed initiative;
- constructing a long-range roadmap of how organizational capabilities should evolve as objectives and goals are met.

The fourth item, capabilities roadmap, serves as an excellent frame of reference for setting high-level courses of action. It also acts as a dashboard for gauging progress against those courses. As such, it helps define the context of all anticipated tactical efforts—i.e., the projects and programs. In the example shown in Figure 1, senior decision-makers can easily see the proposed value, practical timing, and likely challenges of attaining two major goals: reducing costs and improving competitive performance in the marketplace. As detailed-level activities are then planned, tracked, and compared against this benchmark, the result is greater visibility and confidence regarding scope, resources, and true organizational success.

The professional PM and BA play a valuable role in facilitating production of a capabilities roadmap by imparting logic and structure while stimulating practical creativity. This helps executives transform their vision into actionable scope backed by sound cost-benefit awareness. Conversely, it also

reinforces the traceability of each objective back up to relevant enterprise goals, with emphasis on defining the metrics to be used in confirming achievement of those goals.

When solid long-term planning and associated analysis are in place, the first side of the triangle is complete. Strategic planning occupies the top side due to its broad horizon (Figure 2).

## Constraint # 2 - Business Analysis

The process of translating the strategic plan into actionable elements begins with professional business analysis—i.e., capturing, refining, confirming, and prioritizing the needs to be satisfied by a project or program. The key activities involved at this stage are thoroughly presented in *A Guide to the Business Analysis Body of Knowledge*® (BABOK® Guide) and warrant full consideration regardless of whether the organization is commercial, non-profit, or public service.

GOAL	BUSINESS OBJECTIVE (BENEFIT)	Improvement Area	Priority	Speedbumps or pain points against progress	Ongoing results (progress metrics)	Ongoing adjustments needed	GOOD	BETTER	BEST
Cost Reduction	Reduce internal costs associated with sub- optimal workflows and systems	internal business & data workflows workflow management tools maintenance of a single system		intricacy of existing workflows and data flows - manual and automated impact of change	compare reports created before and after solution in terms of time, \$\$\$, re-work, and handoffs higher value-added tasks for support staff	setbacks occur>	end 2Q2014 Introduce improved workflows and workflow tools to create <u>N</u> products	3Q2014 Introduce improved workflows and workflow tools for N additional products.	4Q2014 & beyond Introduce improved workflows and workflow tools for remaining products.
Competitive Edge	Enhance products and services delivered to clients	response to new customer requests, needs, turnaround time		objective vs. subjective measurements of improvement	internal and external feedback on service fit turnaround time improvement (e.g., ability to provide a new service to an account)	<determined as<br="">setbacks occur&gt;</determined>	end 2Q2014 Introduce improved workflows and workflow tools to create <u>N</u> products	3Q2014 Introduce improved workflows and workflow tools for <u>N</u> additional products.	4Q2014 & beyond Introduce improved workflows and workflow tools for remaining products.

Figure 1: Capabilities roadmap.



Figure 2: Strategic planning as the first enterprise constraint.

Unfortunately, the care, discipline, and effort required for thorough upfront analysis is too often viewed by executives as optional. Eagerness to begin work frequently results in premature efforts based on inadequate or inaccurate information. The result is all too familiar: rework. The consequences can include confusion or skepticism about the strategic vision, allocation of inappropriate resources, failed outcomes, and of course delays. Conversely, pursuing solid business analysis becomes an insurance policy against these risks and proves to be extremely valuable over the life cycle of each project or program that supports enterprise strategy.

One of the first analysis areas that the project BA should insist on is the assessment of stakeholders (see *BABOK® Guide*, Chapter 2). Taking time to formally evaluate stakeholders greatly improves communication by ensuring that the right influencers are involved at the right time in developing requirements. It also plays a key role in building the proper escalation process and path for resolving project issues that cross organizational boundaries. In short, stakeholder assessment is fundamental to timely, balanced decisions on priorities, scope, budget, schedule, quality, and risk.

- a. A good starting point is to try gauging the level of *interest* and level of *influence* possessed by each key member of the project or program team. To assume that there are no differences is both naive and inefficient.
- b. A valuable next step is determining each stakeholder's role. It is basic to project continuity and effectiveness to know whether a stakeholder is a *sponsor* with control over resources and priorities, a *beneficiary* whose needs are central to the project's scope, or an *affected party* who may need to make some change to processes or tasks as a result of the project, but who may not see an immediate benefit.
- c. Further classifying stakeholders according to their involvement with requirements optimizes precise definition of scope for projects and programs. First there is the *requirement owner*, who controls the activities affected by the project; the requirement owner also allocates project resources who assist in articulating and ranking needs. Next is the *requirement source*—a subject-matter expert who helps develop requirements, with knowledge of both the current state (AS IS) and the desirable future state (TO BE). Finally, there is the *requirement endorser*, whose approval is needed on final requirements due to factors such as interdependencies with other initiatives.

The real substance of business analysis is examining all levels of requirements that define how projects will truly support strategy:

- business requirements—the specific enterprise-level performance improvements that define the desired future state (TO BE), and the associated gap between that and the current state (AS IS);
- user requirements—the improvements which users need from the business processes and systems targeted for change;
- functional requirements—the operational behavior and technical characteristics of improved business processes or systems that support the user and business requirements;
- non-functional requirements—factors that enhance the success and value of project deliverables to the users;
- transitional requirements—the cultural and readiness aspects of introducing change.

One unfortunate shortcut in business analysis is to assume that the current state is either adequately understood or irrelevant for the desired end-state improvement. The argument is that defining the TO BE and then mapping out a route to achieving it is sufficient. Unfortunately, this approach adds avoidable risk to a project or program. Thoroughly understanding the current or AS IS situation is important for several reasons:

- confirming whether there are sufficient business processes already in place to support the full capability of a new solution and its associated tools. Having and also knowing the pertinent underlying processes helps prevent acquiring a solution that could be mismatched or underutilized once adopted.
- 2. *determining both the type and magnitude of change that will result.* This in turn highlights key readiness factors, such as:
  - the amount of training needed;
  - the cultural preparation required for a smooth, steady transition;
  - a careful and early assessment of proper skill sets, especially those that need to be acquired or augmented.
- 3. *pinpointing weaknesses or shortcomings in current processes and tools.* This makes it easier to clearly understand, justify, measure, and then confirm improvements to be delivered by the new solution in comparison to the status quo.
- 4. making it easier and thereby more efficient for vendors to understand our needs as well as our readiness for their solutions. In a procurement situation, this is especially significant for implementation timing and methodology (e.g., traditional vs. iterative).
- 5. *promoting out-of-the box thinking.* Business analysis provides a golden opportunity for a truly fresh look

- at what is currently done and whether it supports the strategic direction.
- 6. fully understanding exactly how a proposed solution will improve the existing situation compared to the cost of that solution. This is essential both for solution selection and for prioritizing implementation phases.

Once we fully appreciate the AS IS, the next step is analyzing the gap between that and the TO BE. Such a comparison helps bring the TO BE state into sharper focus and is a highly efficient and low-risk way to build scope.

Professional business analysis may initially seem to slow down project progress by adding complexity and work. But over the total life cycle it will actually enhance steady advancement by reducing the need to revisit requirements—because they will have been captured completely and accurately the first time. And if a procurement process is needed for an external solution, solid upfront analysis minimizes post-award change orders.

The second side of the triangle is now complete (Figure 3).

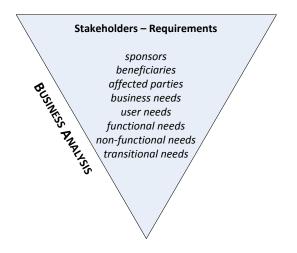


Figure 3: Business analysis as the second enterprise constraint.

## Constraint # 3 - Project/Program Management

Professional project management transforms vision, goals, and objectives into specific tasks that deliver the improved TO BE state prescribed by the enterprise strategy and supported by business analysis. Additionally, it provides the stability needed to implement change in the midst of uncertainty and conflicting priorities. It does this by enforcing clear communication, collaboration, logic, and discipline.

Oddly enough, project management is frequently considered a largely administrative function—i.e., creating schedules, arranging meetings, completing templates,

tracking changes, etc. As a result, it is often seen as an ancillary duty that anyone can properly perform. This perception can sadly become a self-fulfilling prophecy that perpetuates scope creep, missed deadlines, and broken budgets as project management is attempted by staff who lack the background, training, or fundamental skills needed to effectively lead a complex initiative. Project managers are like orchestra conductors, who understand both the composer's music (scope) as well as each musician and instrument (team skills and tools), and who deftly synchronize all of the pieces into one harmonious entity (final deliverables). Such is not a role for everyone.

Figure 4 presents the project domain as the bridge between the business and operations domains. The three key components that serve the professional project manager in building this bridge are the *charter*, *business requirements document*, and *statement of work*.

The charter serves as the birth certificate for the project by authorizing project work and the associated expenditure of resources in the form of time, staff, and funds. The business requirements document augments the charter with the careful analysis needed for clear scope definition and subsequent change management. The statement of work, sometimes labeled the scope document, provides the central guidance and control for project tasks and typically supplies the following:

- project approach, tactics, priorities, milestones, success criteria, assumptions, and constraints
- clear definition of what is both in and out of scope
- project budget
- overall plan or schedule (normally a work breakdown structure)
- quality management plan and metrics
- risk management plan and log
- escalation policy
- communications plan
- documentation guidelines
- test strategy
- training strategy
- procurement plan, as appropriate.

It is paramount that the BA thoroughly understands these facets of project management as requirements are elicited, analyzed, and validated.

When professional project and program management are in place, the third and final side of the triangle is complete (Figure 5), and the primary constraints to enterprise success are interconnected. The degree to which any of the three sides are deficient will adversely affect at least one of the other sides.

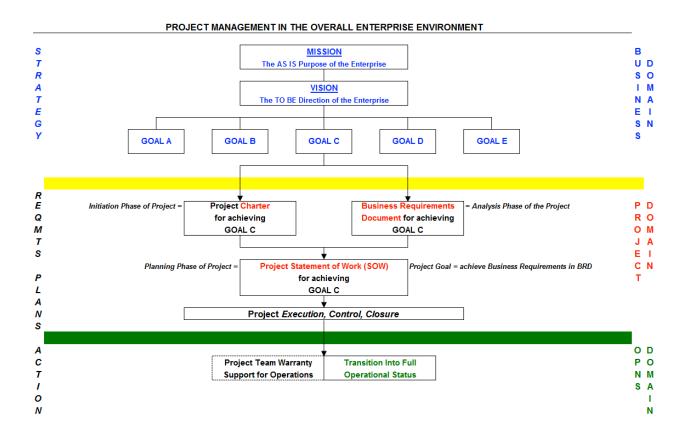


Figure 4: Project management bridges the business and operations domains.

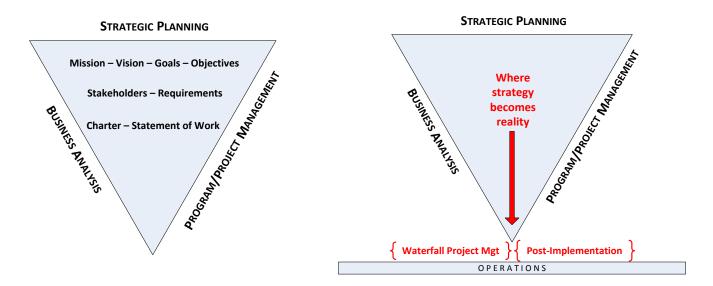


Figure 5: Program/Project management as the third enterprise constraint.

The true endpoint of a successful project is the beginning of improved enterprise operations—i.e., the desired TO BE state defined in the strategic plan. That is where strategy finally becomes reality (Figure 6).

Figure 6: The enterprise triple constraint with traditional (waterfall) project management.

And this applies whether the methodology is waterfall/ traditional or iterative/agile/scrum. In the latter, successive introduction of functionality in small increments achieves the same overall aggregate result once all of the TO BE improvements are completed (Figure 7).

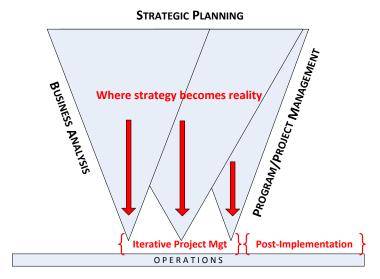


Figure 7: The enterprise triple constraint with iterative project management.

A deficiency in any of the three enterprise constraints will potentially have the same impact regardless of the project management approach. The difference is in the recovery: How soon the deficiency is rectified will affect both the cost and rework imposed on the project/program. With

the iterative or change-driven methodology, the ability to recognize a constraint deficiency and then recover from it is likely greater, simply because project progress is evaluated so frequently – i.e., via daily standup meetings. However, if the deficient constraint is realized and addressed late enough in the iterative approach, the result will essentially be the same as with the plan-driven (waterfall) methodology.

The enterprise triple constraint also sets the stage for efficient and responsive *portfolio management* of all current and proposed initiatives throughout the enterprise. Each project can be evaluated against prioritization criteria (such as ROI and risk), traceability to strategic plans and business requirements, and interdependencies with other projects (Figure 8). The result is a ranking for each project, which facilitates appropriation of both staffing and funding at the organizational level.

#### The Project Management Office

One of the most effective vehicles for communicating, reinforcing, and enforcing the enterprise triple constraint is the project management office (PMO) or Center of Excellence (CoE). A formal PMO or CoE provides the thought leadership, impetus, and continuity so essential for repeatable long-term success with projects. It is uniquely positioned



Portfolio management provides oversight of all discretionary initiatives that are underway or under consideration by the enterprise. It addresses the following questions:

- 1. What projects and programs are we working on?
- 2. What projects and programs **should** we be working on?
- 3. Do any projects relate to each other, such that they should be managed as a **program**?
- 4. Is every project in the portfolio supporting one or more strategic goals?

Figure 8: The enterprise triple constraint with portfolio management.

to explain the philosophy, create the standards, build the processes, and offer the tools that influence how effectively project management advances the enterprise strategy.

Figure 9 illustrates how the PMO can use the enterprise triple constraint to build a blueprint for the project life cycle. Here, all activities coexist in an integrated framework, from inception to implementation, with clearly defined roles, inputs, and outputs each step of the way. It is a complete menu for mapping a practical path to success for virtually any initiative.

But PMOs vary in their role, maturity, and place within the enterprise structure, all of which affect their ability to care for the enterprise triple constraint. One streamlined way to quickly gauge their strengths and weaknesses is illustrated in Figure 10. Performing this type of self-examination generates a handy reference point for viewing progress to date and for charting future improvement milestones. Above all, it clearly emphasizes the parity role that business analysis plays in the overall strength of the PMO.

Eleven stages in the solution-development process →	1. Business Mission, Vision, Strategy & Goals	2. Business Process & Requirements	3. User Requirements	4. Functional Requirements	5. Non-Functional Requirements (NFR)	6. Solution Analysis	7. Solution Design	8. Solution Construction	9. Testing	10. Documentation	11. Training
PROGRESSIVE and ITERATIVE ACTIVITIES	Articulate clear direction at the enterprise or business unit level.	Identify clear business- level performance improvements via gap	Eti) and Analysis ( Determine what improvements users need from individual business processes and systems (AS-IS vs. TO-BE).	WHAT) Determine the needed operational behavior of improved business processes and systems.	Specify anything that enhances the success and value of project deliverables to the users.	Convert requirements to solution specifications.	Develop the complete technical details for preliminary logical and functional designs and for final design and construction.	elopment (H 0 W)- Build the complete technical solution.	Plan and conduct Unit, String, System, and Usability testing.	Develop and deliver	& Transition.→ → Develop and deliver user- and support-oriented instruction.
	Business Sponsor [A] Bus Process Expert [P] Strategic Marketing [S] Product R&D [S]		Bus Process Expert [P] Strategic Marketing [P] Product R&D [P]		Bus Process Expert [S] Product R&D [P]	Product R&D [P]				Bus Process Expert [P] Strategic Marketing [P]	
[KEY ROLES]:	Business Analysis [S]	Business Analysis [P]	Business Analysis [P]	Business Analysis [P]	Business Analysis (P)	Bue Sue Anluet (D)	Bus Sys Anlyst [S]	Bue Sue Anket (S1	Business Analysis [S] Bus Sys Anlyst [S]	Business Analysis [S]	Business Analysis [S]
ORGANIZE/OVERSEE APPROVE/AUTHORIZE PERFORM/PRODUCE SUPPORT	IT Architecture [S] IT Development [S] IT DBMS [S] IT Infrastructure [S]	IT DBMS [S]	IT Development [S] IT DBMS [S]	IT DBMS [S]	IT Architecture [P] IT Development [P] IT DBMS [S] IT Infrastructure [P] QA [S]	IT Architecture [P] IT Development [P] IT DBMS [P] IT Infrastructure [P] QA [P]	IT Architecture [P] IT Development [P] IT DBMS [P] IT Infrastructure [P] QA [P]	IT Architecture [S] IT Development [P] IT DBMS [P]	IT Architecture [S]	IT Architecture [S] IT Development [S]	IT Architecture [S] IT Development [S]
			End User [S]	End User [S]					End User [S]		End User [S]
	Finance [S] Legal/Regulatory/ Compliance [S] Marketing [S] Training [S] Procurement [S]	Finance [P] Legal/Regulatory/ Compliance [S] Marketing [S] Training [S] Procurement [S]	Finance [P] Legal/Regulatory/ Compliance [S] Marketing [S] Training [S] Procurement [S]	Finance [P] Legal/Regulatory/ Compliance [S] Marketing [S] Training [S] Procurement [S]	Finance [P] Legal/Regulatory/ Compliance [S] Marketing [S] Training [S] Procurement [S]	Finance [S] Legal/Regulatory/ Compliance [S] Marketing [S] Training [S] Procurement [S]	Finance [S] Procurement [S]	Finance (S) Procurement (S)	Finance [P] Legal/Regulatory/ Compliance [S] Marketing [S] Training [S] Procurement [S]	Finance [P] Legal/Regulatory/ Compliance [P] Marketing [P]	Help Desk [S] Finance [P] Legal/Regulatory/ Compliance [S] Marketing [P] Training [P] Procurement [S]
	Project Mgmt [O]	Project Mgmt [O]	Project Mgmt [O]	Project Mgmt [O]	Project Mgmt [O]	Project Mgmt [O]	Project Mgmt [O]	Project Mgmt [O]	Project Mgmt [O]	Project Mgmt [O]	Project Mgmt [O]
	Program Mgmt [O]	Program Mgmt [O]	Program Mgmt [O]	Program Mgmt [O]	Program Mgmt [O]	Program Mgmt [O]	Program Mgmt [O]	Program Mgmt [O]	Program Mgmt [O]	Program Mgmt [O]	Program Mgmt [O]
PMI PMBOK Process Correlation Key Deliverables	IIIITIATE Business Case, CBA, Charter	PLAN (ncl. analysis)  A, Statement of Work				EXECUTE, MONITOR, CONTROL Statement of Work					
IIBA BABOK Knowledge Areas Correlation	Enterprise Analysis	Business Analysis Planning & Monitoring Requirements Elicitation and Analysis Requirements Management and Communication				Solution Assessment and Validation Requirements Management and Communication Requirements Management and Communication					
Agile Correlation	Envision Prod	uct, Capture User Storie	s/Features, Prioritize Fe	atures, Plan Iterations &	Releases 🖶	≒	Cor	duct iterations and R	'eleases		
<u>inputs</u>	Business Case. Cost-Benefit Analysis. Rosdingo, Business Capabilities Surmany.	Requirements Work Plan (high-level). Context & relationship models. Business process models. Business rules. Business rules. Grganizational change requirements.	System Use Case models. Activity Diagrams. Screen concepts. Use case outline & inventory. Transition Requirements (high-level). Reporting requirements (high-level).	models. Activity Diagrams. Screen concepts.	NFR List  Response time  - Beakup requency  - Security levels  - bleaster recovery	User experience conceptual model. Screen modulps (high-level). Test analysis & design plan. If Architecture Design (logical). Data Models (e.g., Business Object Model, ERDs, state and class diagrams). DBMS & System interfaces (high-level).	Dete maps. Dete flow Test analysis & design detail. Dete report design.	Pseudo code.		Repository.	Training Plan. Modes and Audiences. Transition Requirement — e.g., processes, staffing, training, and sakis needed for successful deployment into production.
<u>outputs</u>	Charter.	Requirements Work Plan (refined).	narratives (actor side). Activity Diagrams (refined). Transition Transition (detailed). Reporting requirements (detailed).	System Use Case narrotives (system sole), Representation of the case of the ca		Modified Use cases & ADs.  & ADs.  Functional specs: - LIX design LUX elsign User interface rules Screen mockups (detailed) Metadata Metadata Data elements & diagrams DBMS & system interfaces (detailed) Transitional requirements Cross-application dependencies.	(finalized). IT Arch Design (physical).	Program code. Data report construction.	Test Scenarios. Test Cases. Test Scripts. Report Testing. Financial Testing.		Training scripts.
		Business Rqmts Doc (BRD) →	Business Rgmts Doc (BRD) →	Business Rqmts Doc (BRD) →	Business Ramts Doc (BRD)	Solution Ramts Document (SRD)	Solution Design Document (SDD)	Solution Design Document (SDD)			

Figure 9: Mapping the enterprise triple constraint across the project life cycle.

	QUESTIONS Answer each numbered and lettered question on each line.	POINTS (yes = 1, no = 0)						
1.	Ooes your organization have a formal and documented strategic planning process?							
а	Does it specify the enterprise vision?							
b	Does it specify the enterprise mission?							
С	c) Does it outline the goals supporting the vision and mission?							
	Total Points for Question 1 (max. 4) =							
2.	Does each project have a formally documented and signed <b>charter</b> ?							
а	,							
b	,							
С	e) Does it have a preliminary milestone schedule?							
	Total Points for Question 2 (max. 4) =							
3. A	Are business requirements gathered prior to project planning and execution?							
а	Are the requirements formally documented and validated?							
b	,,,,, (,,							
С	c) Are they easy to find, for review and updates?  Total Points for Question 3 (max. 4) =							
4. Is	s there a formal <b>structure</b> for planning and implementing projects?							
а	Does it contain documented processes and tools?							
b	) Is it flexible and adaptable, to fit project needs?							
С	s) Is it enforced for all projects?							
	Total Points for Question 4 (max. 4) =							
5. Is	s there a formal closure and transition process for projects?							
_	Does it include documenting and reviewing lessons learned?							
b	Does it specify plans for transition into production?							
С	,							
	Total Points for Question 5 (max. 4) =							

In the chart below, now place an **X** in the cells corresponding to the total points for each question answered above—and see the current strengths and weaknesses in the overall environment where your projects exist.

# **Staffing for Success**

One final area that deserves attention involves the type of expertise and insight needed to manage the enterprise triple constraint. If the PMO is the optimal venue, then

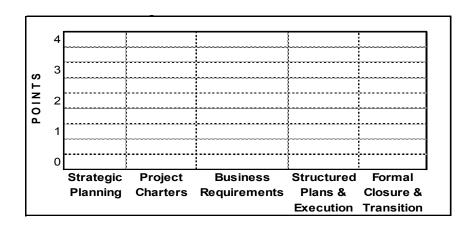


Figure 10: PMO questionnaire for evaluating the enterprise triple constraint.

the optimal cadre includes senior practitioners with a track record in strategic planning, business analysis, and/or project management. These should be professionals who have the right training, skills, and knowledge of recognized standards and best practices. Advanced degrees and professional certification are among the criteria that warrant consideration (Figure 11), but practical experience and the ability to lead and mentor others ranks very high.

#### STRATEGIC PLANNING

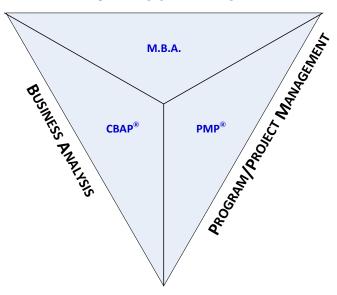


Figure 11: Relevant professional credentials for the PMO.

#### In summary

Without solid strategic planning, both business analysis and project management become orphans, and success is elusive at best. Without business analysis, achieving the enterprise strategy becomes uncertain, and the risk of project failure

increases. Without mature project management, strategic planning and business analysis become academic exercises. But when all three elements of the enterprise triple constraint are synchronized, the organizational vision, goals, and objectives have a very high probability of attainment.

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#### **About the Author**

Mr. Zambruski is a professional consultant, instructor, and coach with 30 years of international experience in strategic and tactical planning, project/program/portfolio management, PMO development, business analysis and process design, risk management, agile project management, and assessment/ recovery of troubled projects. He is certified as a Project Management Professional (PMP)® by the Project Management Institute, of which he is a member, and as a Certified Business Analysis Professional<sup>TM</sup> (CBAP®) by the International Institute of Business Analysis<sup>TM</sup>, of which he is a member. He holds both the Advanced Master's Certificate in Project Management and the Professional Certificate in Business Analysis from George Washington University, and he is also a member of the Agile Alliance. His first book, The Business Analyzer & Planner (AMACOM, 1999), presents a unique seven-step methodology for understanding the fundamental issues behind problems and opportunities, and then mapping out alternatives for optimal results. His second book, A Standard for Enterprise Project Management (Auerbach, 2008), blends the rigor of project management with the thoroughness of business analysis into a complete handbook for project initiation, planning, execution, communication, documentation, closure, and postimplementation evaluation. His email address is Michael.Zambruski@snet.net.