

Strategic Management By Projects For The 21st Century

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Abstract

Rapid and pervasive change has challenged the survival of firms and their ability to sustain competitive advantage. Failures of vision and focus are cited as common reasons for company failures.

Yet clear strategic vision and clearly focused strategic plans are insufficient to sustain competitive advantage. Numerous cross-organizational change needs (e.g. programs, projects) are commonly identified, but identifying does not achieve implementation. Simultaneously, several sources have written about how firms are beginning to use project management based approaches to manage their organizations (e.g., Project Portfolio Management, Enterprise-Wide Project Management). Yet these approaches are generally not strongly linked to the strategic plan.

Strategic Management By Projects (SMBP) for the 21st Century is the approach presented herein to link and tightly integrate an effective strategic planning process with the process for implementing the strategic plan to build and sustain the firm's competitive advantage. The implementation focuses on maximizing throughput of the strategic portfolio of strategy-fulfilling projects. The paper develops the essential elements of the SMBP process, the critical integrative links and critical success factors that should be in place, metrics for evaluating and improving strategic implementation performance, and case highlights to illustrate key points. Executive buy-in is easily attained using the proposed approach. In fact, active involvement of executives becomes a natural and value-added part of the process, since the focus is on the effective implementation of the strategic plan and on sustaining the firm's competitive advantage.

Key Words: Project Management, Project Portfolio, Managing by Projects, Strategic Planning / Management

Company Failures, Rapid Change, And Chaotic Environment

There is no question that failed companies, rapid technological and business change, and chaotic environments characterize the landscape that most companies find themselves competing in today.

Why Companies Fail: Reasons both Strategic and Operational

Half of the Fortune 500 companies in 1987 are not Fortune 500 companies today. Many of these same companies have failed and closed their doors forever. Reasons cited are numerous. A Fortune study [5] cited a few common reasons for why companies fail including:

“**Failures of Vision**” means executives were lacking the vision to see and plan for future obstacles and opportunities. To survive, executives must stretch their imaginations, apply wide-ranging creative paranoia, and ponder new futures driven by new product lines and new technologies.

“Identity Crisis” means that executives often don’t understand the fundamentals of their business. Executives neglect to ask central questions regarding their company’s core expertise and the key drivers in their competitive situation.

“Anybody Out There” refers to companies losing touch with their customers and the marketplace. It also relates to advances in technologies that may have a major affect on the marketplace and what is of value to the customer.

“The Glue Sticks, and Sticks” has to do with a company continuing to pursue outmoded approaches that worked well in the past, while the competition has grown faster, stronger, and more nimble. The past best method has become an outmoded continually deepening rut. These companies are not learning organizations, a trait essential for the future.

“Enemies Within” means employees within the company have become disillusioned, resentful, cynical, or even hostile toward the company and its top managers. Lost employee productivity occurs long before this level of lost leadership and low morale occurs. Highly motivated and productive employees know the importance of their jobs and believe in their executive leadership.

The first three of these failure reasons are problems with strategic direction of the firm, while the last two have to do with approaches in implementing the strategic direction.

Rapid and Accelerating External Change: An Underlying Challenge

The extremely rapid rate of change in the technological, competitive, and business environments is an underlying challenge for firms, and causes for company failures for the reasons given. The exploding pace of technological change is mindboggling, and creates product substitutes, new businesses, new capabilities, and breakthrough process improvements never before possible. Yet technology represents only one source of change. Numerous sources are evident, thereby leading to an externally chaotic environment that causes major challenges to the firm. Traditionally, change came at a slow, stable, constant rate. Today, the change is rapid, pervasive, and firms compete in an externally chaotic environment. Success for firms via traditional methods is history.

Resulting Internal Chaos

External change induces internal change; and the faster the former, the more urgent the later. Many approaches have been applied over the past two decades including: advanced technology, TQM, business process reengineering, accelerating time to market, rightsizing, and numerous team-based and empowerment approaches. Some are fads, some are here to stay, yet none is sufficient. Further, competitive paranoia and urgent, multiple, competing, and cross-organizational change needs have led to internal chaos, instead of smooth, effective implementation of change. Such an internal chaotic environment calls for a highly flexible process that integrates the cross-organizational needs consistent with the organization’s strategic direction and strategic priorities.

Quest For Sustainable Competitive Advantage

Even in the chaotic environment (both external and internal), the firm is seeking much more than just survival, or not failing. The quest is for sustainable competitive advantage. Even if the firm creates a competitive advantage via their firm's core abilities and clear strategic thinking, that advantage frequently is temporary, rapidly fleeting, and not sustainable. In a related study, Wether et al [8] made the following conclusions about technology management.

"The future of technology management is moving on to an ... execution oriented paradigm. ... Instead of focusing on specific technologies to gain a competitive advantage, this paradigm shift will direct attention to the organization's execution capabilities.

(Competitive advantage requires) ... a clear understanding of the firm's core technology and ... (its fit to) ... strategy. ... A specific technology may well lead to a competitive advantage. But a sustainable competitive advantage comes from the organization "learning" how to constantly improve its technology acquisition and deployment capabilities.

World-class competitors ... have already fused (integrated) technology ... (and) strategy ... (and) will push ... beyond integration to execution. In practice, the measurable payoffs from this execution-oriented paradigm will be a sustainable competitive advantage because the strategic edge that results *is neither easily observed nor quickly duplicated by competitors.*

"Execution-oriented" capabilities leading to a sustainable competitive advantage applies equally well to firms not driven by technology; as technological change is but one of numerous sources of rapid, pervasive change. In summary, creating a competitive advantage may be possible via a strategic plan with appropriate strategies. However, the *sustainable* competitive advantage may remain only an unattainable quest for firms without effective "execution-oriented" capabilities.

Strategic Management By Projects (SMBP)

Strategic management involves the process of formulating and executing strategies for a sustainable competitive advantage. A strategy is a comprehensive plan that sets strategic direction and guides resource utilization to accomplish an organization's vision, mission, and objectives with sustainable competitive advantage. The effectiveness of an organization's strategic plan depends on clear strategic thinking, the achievability of the competitive advantage, and establishing commonly held and agreed-to strategic guidelines for decision making. However, a perfect strategic plan is meaningless without its effective implementation. Similarly, effective implementation without a good strategic plan will not work (its like efficiently getting to the wrong place). Either without the other will cause the organization to fall short of expectations. In fact, excellence in both are essential to attain the quest for a *sustainable* competitive advantage.

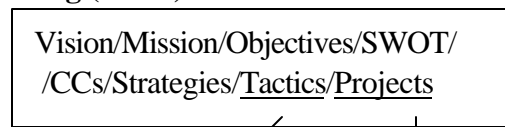
Therefore, the **Strategic Management By Projects (SMBP)** approach is proposed for effective strategic management and attainment of a sustainable competitive advantage. SMBP is depicted in the exhibit, discussed in subsequent sections, and summarized by the following equation.

$$\text{SMBP} = \text{SPTP} \times \text{SIBP} \times \text{CKI}$$

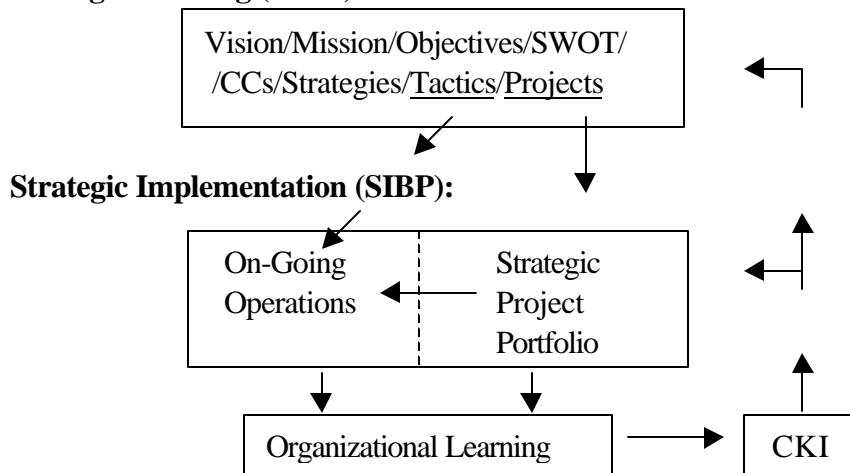
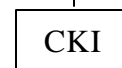
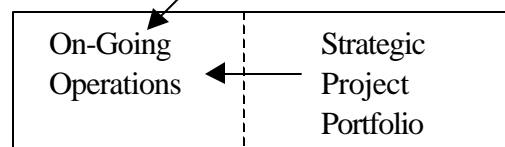
where **SPTP (= Strategic Planning To Projects)** is the strategic planning process which must driven down to operational tactics and a set of projects (called the strategic project portfolio) required by the strategic plan; **SIBP (Strategic Implementation By Projects)** refers to managing the organization by projects approach to implement the strategic project portfolio and strategic plan; and **CKI (Continuous Knowledge Improvement)** refers to the organizational learning needed to improve the SPTP and SIBP processes over time. Note in the above SMBP equation that all components must be in place 100% for SMBP to reach 100% effectiveness. Any component missing renders SMBP completely ineffective over time.

STRATEGIC MANAGEMENT BY PROJECTS (SMBP)

Strategic Planning (SPTP):



Strategic Implementation (SIBP):



Strategic Planning To Projects (SPTP) Process

SPTP is similar to the normal strategic planning process, except that the final output must be driven down beyond broad strategies to specific operational tactics and to specific projects (the strategic project portfolio) required for the strategic plan implementation.

Vision. The vision statement for the firm describes the clear strategic direction and end state for the future. Criteria for an effective vision statement include: (1) conveys clearly, briefly, and simply the organization’s strategic intent and compelling ideal end state; (2) goes beyond the current scope of activities; (3) articulates what is possible and desirable; briefly states in a few words that are simple, compelling, challenging, realistic, and easily communicated; and (4) becomes internalized, articulated, and acted on by the organization’s stakeholders. As an example, Delta Airlines provides a good example in their vision statement: “...Delta will be the **WORLDWIDE AIRLINE OF CHOICE.**” Many words may be needed to clarify precisely what is meant by “worldwide,” by “airline”, and by “choice.” What is critical is that the vision must capture that clear, compelling end-state in very few (5-10) words. Then everybody in the firm is aligned and all have clarity of the firm’s strategic direction in all of their activities. The vision guides their operational

decisions and daily activities/ interactions with other employees, customers, and suppliers.

The vision provides the strategic focus. This and other strategic plan components are shown in the figure. For brevity purposes herein, the reader is referred to other sources [3, 7]. However, it should be noted that for the strategic plan to be effective, it must possess clear and powerful strategic thinking and be characterized by the following.

External factors related to company failures, the rapidly changing environment, and competitive pressures must be an integral part of the SWOT (Strengths, Weaknesses, Opportunities, and Threats) analyses. The development and sustainability of the firm's Core Competencies (CCs) must be consistent with the SWOT analyses. Strategies and CC's must be internally consistent with the strategic focus (i.e., the compelling end state of the vision statement) and its achievability in light of the SWOT analyses. All strategic plan components (i.e., vision, mission, strategic objectives, SWOT, CCs, strategies) must be: integrated, aligned with each other, and attainable.

Strategies. The final output of a strategic plan for many firms are the strategies. A strategy is a comprehensive plan that sets strategic direction and guides resource utilization to accomplish an organization's vision, mission, and objectives with sustainable competitive advantage. Thus, strategies are broad action plan statements that describe what action will be taken in broad terms. An organization may have only a few strategies (e.g., 3 to 10).

For an execution orientation, the strategic plan cannot stop at strategies. The strategies are commonly short on specifics, and must be driven down to the next level so the strategic plan is integrated with the implementation. The strategies rapidly explode into numerous operational tactics and a large number of projects (i.e., strategic portfolio of projects), all requiring implementation.

Operational Tactics are the actions that can be directly implemented into the firm's on-going operations after making the strategy decision and identifying all the specific actions needed to implement the strategy. Traditionally, in less chaotic environments, the strategic plan was mostly all implemented by delegating responsibility for the operational tactics to the VPs of each of the functional organizations. In today's rapid change environment, strategic implementation often can only be effectively accomplished through numerous cross-organizational change projects.

Projects as derived from the strategic plan are the numerous specific cross-organizational change requirements that are required to implement the aligned strategies, objectives and vision of the strategic plan. For firms in rapid change environments, the volume of changes (i.e., projects) continues to increase and becomes an increasingly important part of the strategic plan requirements.

An essential requirement of the Strategic Planning To Projects (SPTP) is that the strategic plan must be driven down to the portfolio of strategic projects level. This project portfolio (plus strategic guidelines for use in implementation) from the strategic plan provide the aligned and integrated focus for an effective implementation of the strategic plan.

Strategic Integration: The Missing Links

Having noted that the strategic plan involves an increasing number of projects to implement, we might quickly jump to one of several “managing organizations by projects” approaches [1,2,6,12], then hand-off the strategic plan to the implementation team, and next go onto other activities. It’s not that trivial, and the same internal chaos may follow. The problem is that the key integrative links between the strategic plan and the strategic implementation are commonly missing.

First, consider some of the equivalent names and definitions for managing organizations by projects. The names include [4,6,9,11]: (1) Project Based Organization, (2) Integrative Multiple Project Management, (3) Managing Organization By Projects (MOBP), (4) Modern Project Management, (5) Project Portfolio Management, and (6) Enterprise-Wide Project Management. The definitions of these names and their focus also vary significantly, including: (1) “A collection of projects in the firm,” (2) “Reflects the global way of putting classic project management methodology into practice,” (3) “A collection of projects that the firm authorizes and funds, to build its competitive future,” and (4) “Organizations focused on implementing the portfolio of the firm’s cross-functional projects.”

By its absence, the first missing link in integrating the plan with the implementation is not having the implementation process focused on implementing the strategic portfolio of projects.

A second missing link is not having an organizational focal point responsible for implementing all strategic projects. Delegating responsibilities to the functional VPs is the common problem.

The third missing link is not having a cross-functional group that’s responsible for executive strategic level decisions during implementation. Key here is making priority, resource, and other trade-off decisions among all of the critically important projects. Separately delegating this to the individual VPs does not provide integrated solutions, but results in internal chaos.

A fourth missing link is not having project management standards, guidelines, and approaches, so that all are using the same methods and communicating in the same language throughout the organization.

A fifth missing link is not having a comprehensive set of performance metrics for implementation that enable and serve as a basis for organizational learning and continuous improvement over time.

Strategic Implementation By Projects (SIBP)

Critical Integrative Links (CILs). We believe the SIBP process must have the following foundational CILs to integrate and tightly link the strategic plan with the strategic implementation.

The SIBP process focus is to effectively implement the Strategic Project Portfolio.

The Strategic Project Portfolio (SPP) is the set of cross-organizational strategy-fulfilling projects derived from the most recent SPTP strategic plan, and subsequent additions or modifications determined by the PST. No other projects are included.

Strategic Decision Guidelines (SDG) is a set of guidelines developed as an outcome of Strategic Planning for making multi-project decisions. The SDG is used during implementation for making decisions and resolving conflicts on project priorities, project delays/modifications/additions, resource contentions, and other multi-project trade-off decisions.

The Planning Support Team (PST) is chaired by the MPM, consists of 5 to 8 committed individuals who report to the VP levels of the organization, manage project oversight of the SPP, and make/resolve decisions involving multi-project tradeoffs and conflicts.

The Project Office is in place and is headed by the Manager of Project Management (MPM), who reports at a fairly high level in the organization (e.g., reports to the President).

The Project Management Reference Guide/Standards is a handbook which defines the company's project management process and standards for all projects in the SPP.

Project Prioritization is done by the PST, enabling the company to perform resource loading and leveling, and work within its resource capacity. Prioritization also enables the PST to ensure adherence to strategic direction identified in the strategic plan.

Much discussion exists on the difficulties of achieving executive buy-in of these managing-by-projects-type processes. The authors' experience shows, however, that executive buy-in and active involvement by executives are more easily attained when the essential focus of the process is on effective implementation of the strategic plan and on the firm's sustainable competitive advantage.

The essential need for tightly linking and integrating the strategic plan formulation and the strategic plan implementation means that firms should go to an SIBP-type process. Focusing on implementing the Strategic Project Portfolio (SPP) is focusing on the execution of the strategic plan. The SIBP process therefore captures the immediate attention and active interest of executive management.

Critical Success Factors (CSFs). Setting up the SIBP process can be a significant challenge. It cannot be cumbersome, but must be an adaptable and sustainable process. The MPM must be prepared and the SIBP must include as a key part of its implementation, the identification of best practice CSFs and implementation performance Metrics. The CSFs below are based on previous organizational learnings that have been specified in previous papers by the authors [9,10,11,12].

Visible Top Management Commitment and Support

Simple, Flexible, Phased Stage/Gate Process

Loose-Tight Controls Capable of Operating in Chaotic Environments

Clear and Communicated Prioritization to Align and Focus Scarce Resources on the Most Important Changes

Organizational Integration: Vertically (top-down) / Horizontally (across functions) / Externally (customers, suppliers, partners)

Clear, Open, Timely, Free-Flowing Communications Across All Levels and Functions

Continuous Innovation, Incubation, and Improvement of Products, Processes, and Technologies

Integrated State-of-the-Art Technology Infra-Structure where Advantageous

Organization Learning (CKI)

Metrics. Now that we have identified the SIBP CILs and CSFs, we can also identify the Metrics for measuring SIBP implementation performance so that we may continue the organizational learning into the future. Ten (10) key Metrics are proposed to show the ability of the enterprise to maintain continuity and a steadfast sense of purpose and commitment to the strategic plan. These Metrics measure and show the effectiveness of SIBP process, the execution engine of the strategic plan.

Number of Project Completions Per Year

Percentage of Cost, Schedule, and Performance (CSP) Deliveries Per Year

(Note: Performance = Scope and Quality)

Number of Authorized Changes to CSP during Implementation Phase (Per Project)

Number of Cancellations by Phase

Project Manager Turnover within Phase

Team Turnover within Phase

Number of Active Projects (Taken Monthly)

Number of On-Hold Projects (Taken Monthly)

Number of Process Exceptions Per Month (i.e., Bypass the Process)

Number of Process Changes Per Year as Approved by PST)

It is tempting to propose more sophisticated metrics of performance. However, the fundamental concept applied in proposing the above metrics is to start simple, measure things well that are known to be important during implementation, generate and answer questions over time, and improve the metrics (along with other process components) when meaningful and over time.

Note that these metrics do not replace strategic metrics, since they measure implementation (i.e., SIBP) performance which implements the strategic plan (i.e., SPTP). It is the experience of the authors that implementation problems are the most common reasons for strategic plans failing.

Continuous Knowledge Improvement (CKI) of the SIBP process, the CILs, the CSFs, and Metrics is a continuous organizational learning process essential for sustaining the firm's competitive advantage. This continuous improvement should be reflected in updates to the Project Management Reference Guide/Standards, to other elements of the SIBP process, to the CSFs and Metrics, and to improvements to the SPTP plan phase for more effective integration between the SPTP and SIBP phases. In summary, the concept is to start simple and meaningfully improve over time.

Company Experience Highlights

To illustrate in specific terms the interrelationships between the Metrics and the SIBP, the CILs, and the CSFs, it is useful to consider the highlights of the authors' experience with several companies.

Project Completions and CSP Deliveries Metrics

The first case highlight involves a corporate facilities management division of a Fortune 500 firm. The case vividly shows the effect on project completions and CSP delivery metrics before and after their SIBP process was implemented with the CILs and CSFs in place. Before SIBP, the division was running approximately 1000 to 2000 projects per year with about 55% to 65% delivered as authorized in the latest

approved project plan. More precise estimates than these were not possible because adequate records on projects and their change orders were not maintained.

In the third year after the SIBP was implemented with the CILs and CSFs in place, the organization completed 1432 projects with 98% delivering their CSP as promised. Furthermore, of the top 200 priority projects, only 5% required changes to their CSP; that is, 95% delivered the CSP approved in their original project plan! In addition, their organization's strategic business performance measure of installed cost per square foot was reduced by 60%.

Authorized Changes and Cancellations by Phase Metrics

The next case involves an innovative food product company and their new product/market innovation and introduction process. The firm set up a SIBP process with the CILs and CSFs in place for their new products and markets. In particular, the CSF 7 was set up with specific targets by phase to encourage the continuous innovation and incubation of high potential new products. The targets were 8 projects in the concept definition phase, 4 projects in the development phase, and 2 projects in the market test phase for every one project in the market introduction phase. Following this ratio, the actual mix per year is often 100/50/25/12; that is, for 12 new products introduced began with 100 concepts.

Committing to specific targets by phase enabled continual work on projects in all phases, enough resources to support all phases, and high priority for high potential projects in the market test and introduction phases. Further, it mitigated the tendency for bunching of resources by phase (i.e., all focused on a few projects) and carrying all (or most) potential new products through the market test phase. Thus the number of completions per year increased, fewer authorized changes were required because they were fully defined in the earlier phases, and a higher percentage of the cancellations shifted to the earlier phases, liberating development capacity for use on products with the greatest potential for success.

Number of Projects Active and On-Hold Metrics

The authors' experience has shown that an interesting phenomena frequently occurs with the initial implementation of the SIBP prioritization critical success factor (CSF 4). Upon introduction of the SIBP, the firm initially discovers that they have twice as many projects as they think they do. For example, if 50 projects were the initial estimate, then about 100 projects will be discovered when the SIBP is started. When projects are prioritized, for the first time, about one third (30-35%) of these projects simply disappear within the first 3 to 5 months, and the resources needed to support the remaining 65-70% of the projects are only about 50-75% of the original estimate. Various reasons are cited (e.g., couldn't really define the project, bad idea when evaluated more thoroughly, project not feasible). Expect a 1/3 shrinkage in projects.

Process Exception and Change Metrics

The last case highlight involves two Metrics that are obviously of great importance to SIBP, while the actual case situation is nearly beyond the boundary of belief. The co-author keeps a personal Guinness

Book of positive and negative consulting experiences and situations. His entry for the largest number of changes occurred with a new product development project in an electronics company. The project team had logged 457 changes in 18 months. Given that, after excluding weekends, there were 470 available workdays during this period, the average was almost one change per day! The authors conclude that, while they had great tracking, their change process was totally out of control.

Conclusions And Future Steps

A competitive advantage that is sustainable for a firm is a quest that requires both an effective strategic plan and its effective implementation through the firm's execution-oriented capabilities.

The SMBP approach presented does exactly that by requiring both an effective strategic plan (SPTP) driven down to the portfolio of strategic projects level that can be effectively managed by the SIBP process.

The Strategic Portfolio of Projects and the Critical Integrative Links (CILs) presented provide the tight linkage required for the strategic plan to be integrated with its implementation.

The SIBP process is a managing organizations by projects approach that becomes highly effective for implementing the strategic plan when the CILs and Critical Success Factors (CSFs) are added to provide a strong strategic focus with proven cross-organizational project processes.

5. Several key implementation performance Metrics have been proposed and have been demonstrated to be interrelated with the SIBP process, the CILs, and the CSFs.

6. The linkage between strategic planning, SIBP, CILs, CSFs, and Metrics is of vital importance.

The performance Metrics and their trend over time can be used to indicate CSP achievement of projects, and to tell how well an organization's SIBP process is working. They can also be used to help identify potential CIL and CSF continuous improvements and to optimize SIBP performance.

The 10 Metrics proposed are believed to be key indicators of performance for SIBP that can be further validated with additional empirical evidence. Some metrics may have been overlooked, and the authors invite your thoughtful ideas and suggestions.

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