

The Entrepreneurial Engine

OM in Entrepreneurship

Abstract: Firms today struggle with the need to be more entrepreneurial. From the abundance of new opportunities available, managers must quickly screen out those that do not fit with strategic and financial objectives, and then develop a plan for effectively pursuing the best new products, services, or entire new businesses. The plan must target the unknowns and assumptions that must hold true for the opportunity to be worthwhile, and must dynamically respond to new knowledge created in the development process. We present a planning methodology with these entrepreneurial features and report results from several firms.

Burchill, Gary
President, Center for the Quality of Management
One Alewife Center, Suite 450
Cambridge, MA 02140
617 873-8950
617 873-8980 (fax)
Gary_Burchill@cqm.org

Gray, Ann E.
President, Fabrico, Inc
19 Industrial Park Road East
PO Box 701
Oxford, MA 01540
508 987-5900
509 355-1979 (eFax)
aegray@mindspring.com

Scoring BIG in a fast changing business environment

For much of the last quarter century, if a business could consistently meet or exceed the quality, cost and delivery (QCD) expectations of their customers they could predictably deliver revenue growth. In some segments, meeting these conditions was both necessary and sufficient for success. Furthermore, if business' leaders understood and were aligned with the dominant forces in their market place, then a sustainable competitive advantage could be created and capitalized. However, today meeting or exceeding the customer's requirements for quality, cost and delivery is absolutely necessary but no longer sufficient for predictable, profitable growth. Understanding, let alone aligning, with the dominant market forces is currently a challenge of unprecedented complexity, one that requires companies to sense and respond more quickly to continual changes in the marketplace (Haeckel, 1999.) Unfortunately, the capacity to take timely thoughtful action in response to changes in the marketplace, is being challenged by forces inside the organization, which in the extreme create a form of organizational gridlock. In this context, an organization's ability to detect, target and capture the best opportunities, from among a proliferation of diverse options, is *the* critical success factor.

Four new forces to contend with

In today's business environment, the forces impacting decision making inside the organization can be just as challenging as those in the marketplace. Success in today's fast changing business world requires the best efforts of your best employees. However, success built on the extraordinary effort of extraordinary people is short-lived. In the mobile labor market of today, good people will leave for better pastures. All other things being equal, those organizations which can consistently provide opportunities for their people to develop will be those organizations which win the talent war and thus be in the best position to master the escalating complexity of their business environment for competitive advantage. Successful companies will need an entrepreneurial engine.

Compression of time

We appear to have less time today than ever before; and it's not just time for work. It's time for family, for recreation, and for community service. The compression of time has been accelerated by the pervasiveness of the internet. The "internet economy" has made the concept of 24/7 a mantra for decision makers to act quickly before the competition, channel partners or customers can respond. This trend will accelerate with the explosion of wearable wireless devices such that today's pressure for promptness will become tomorrow's demand for immediate response. Additionally, time zones have collapsed with the arrival of truly global business operations. The decisions that need to be made to drive the performance of the business are being made around the world around the clock.

Explosion of information

Not only is the pipe that brings data to your desktop bigger, the flow rate is also faster. The cost of computing power has fallen so dramatically over the past decade that many of us carry more computing capacity in our briefcases today than existed in the first office we worked in fresh out of college. As a result, more data about more things is literally at your finger tips and, as

infrastructure evolves to optical and wireless networks, this data is moving ever more quickly, literally, under our feet and through the air around us.

Acceleration of organizational changes

People are more mobile inside of organizations. People are more mobile between organizations. Organizations apply the principle of cycle time reduction to their own efforts to reorganize, restructure, and reinvent themselves. Unfortunately, it's not just your company which is undergoing change - the entire value delivery chain supporting your product or service is one constantly changing complex system.

Proliferation of opportunities

There are more good ideas to pursue than there is time or money to do it. The challenge many businesses face today is that there is not just a proliferation of opportunities – but that those opportunities are more diverse. Products, markets and technologies that look like they may be most attractive can be more diverse than those that you've traditionally considered as an acceptable product or service for your company.

SCORE – The five steps to Building an Entrepreneurial Engine

There are several factors that significantly compound the difficulties which most companies face when detecting, targeting and capturing the best opportunities. First, the organization may not be able to detect the relevant signal from the noise. Second, the window of opportunity may open and close outside of the traditional planning cycle of the company. And finally, the organization may be able to successfully identify the target but be unable to achieve it due to an inability to execute within a framework of significant ambiguity, particularly in the early stages of development where there is relatively little organizational history.

The Center for Quality of Management¹ has spent several years developing and successfully implementing within its member companies SCORE, a complete decision support process which:

1. Efficiently screens out opportunities inconsistent with the purpose and direction of the business – you don't waste time on the wrong things;
2. Quickly determines if you can efficiently respond to a selected opportunity – you don't waste time on low return activities;
3. Captures assumptions during planning and addresses them during execution – you avoid being blindsided by hidden or untested assumptions
4. Unambiguously assigns accountability for results to the responsible party – you reinforce management discipline under conditions of significant ambiguity.

SCORE is an acronym which stands for: **S**ense Opportunities, **C**heck Alignment, **O**perationalize the Opportunity, **R**esource Commitment Decision and **E**xecute, figure (1).

See Figure 1

¹ The Center for Quality of Management is a non-profit consortium of over 100 companies and 12 universities which exists to improve the business performance of its members through mutual learning. The CQM has four US chapters, three in Europe and one in China

Sense Opportunities

The objective of stage 1, Sense Opportunities, is to detect opportunities that might be converted into highly profitable products or services. Conceptually, there are three sets of activities that need to be accomplished in this stage. First, the organization must design a search pattern that is robust enough to systematically eliminate the organization's blind spots in seeking opportunities. (One simple exercise to identify blind spots is to examine recent opportunities which the organization has invested in which in retrospect it wished it had not, and those products and services which your competitors have invested in which you wished had.) Second, the organization must have the capability to detect relevant signals from the environment. This signal may come from a new technology, a new competitor, or a new market, or a slow shift in one of these factors. Relevant signals are those with the greatest potential impact in the current environment or signals that a state change in the current environment is beginning. Often, the organization's traditional planning process can miss these signals. Finally, the selected idea needs to be converted into a description that can be articulated as a value proposition that other's in the organization can appreciate, figure (2).

See Figure 2

Check Alignment

The objective of the second stage, Check Alignment, is to quickly screen opportunities for consistency with the purpose and direction of the organization. There are four sets of sequential activities that occur during this stage. First, the organization needs to check the consistency of the value proposition against its reason for existence, (Haeckel, 2000.) A "reason for being" statement, if previously developed by the senior leadership team, allows this screen to be very fast. If the opportunity is consistent, then the product/service concept needs to be checked against the business development plan. Third, the potential financial impact needs to be evaluated. Our approach to analysis follows the Discovery Driven Planning methodology (McGrath & MacMillian, 2000) utilizing a "reverse income statement." As it implies, this analysis starts with determining the bottom-line profit and works backward from there, (figure 3).

See Figure 3

Without a significant investment of time, the relative order of magnitude of the key economic factors can be determined. Throughout the development of the reverse income statement, there is an active effort to make underlying assumptions explicit. It is often the case that what is unknown significantly exceeds what is known regarding the opportunity. Using a series of "lenses and frames" to classify the many assumptions generated, a go/no-go risk assessment can be made. If at any point during this stage, a misalignment between the opportunity and the organization's intent, direction, financial goals or risk profile is discovered, the opportunity should be dropped. Remember, today's environment is characterized by a proliferation of opportunities, and only the best should be pursued.

Operationalize the Opportunity

The objective of the third stage, Operationalize the Opportunity, is to create an explicit model for pursuing an opportunity, focusing on the required outcomes, accountability for these outcomes and the assumptions necessary for achieving the outcomes. Using the Enterprise

Model (Hatten & Rosenthal, 2001) a process-function matrix is developed that will deliver the value proposition (see figure 4). The required outcome of each process is identified and the unambiguous assignment of outcome accountability is made for each process. Subsequently, the process capability and associated functional competency gaps are identified. Assumptions are actively generated throughout the development of the enterprise model. Like in Stage 2, these assumptions are classified using Lenses and Frames and analyzed using risk matrices. A go/no-go decision can be made at this point.

See Figure 4

Resource Commitment Decision

The objective of stage 4, Resource Commitment Decision, is to create a timeline for pursuing the opportunity that aligns assumption clearance with resource investment and that allows for adjustments in execution as assumptions are cleared (see figure 5). It is important to recall that for many of the opportunities that can potentially be pursued, the number of unknowns significantly exceeds the number of knowns. This stage begins with the development of a traditional project plan that identifies primary activities (tasks), critical outcomes and the associated investments over time. However, in SCORE, the critical assumptions, and when they are expected to clear, i.e. be proven true or false, are also plotted on the schedule. After the project plan is developed, the assumption clearance schedule is compared to the investment profile. Alignment is created by identifying ways (task reordering, experiments, etc.) in which critical assumptions can be cleared prior to major investment points. At the end, the decision can be made on scope, schedule and resource commitment in a way that allows for scaling the project in conjunction with the clearance of critical assumptions.

See Figure 5

Execute

The final stage of SCORE is Execute. The objective is to utilize the understanding developed through the evaluation of the opportunity to respond appropriately to intermediate outcomes and knowledge gained as the project progresses. During the execution stage monitoring plans are based on the likelihood/impact of key assumptions. Regularly scheduled go/no-go evaluation points, with unambiguous criteria attached to assumption clearance points, are part of the project plan. Ultimately, during the execution, contingency and termination plans are triggered as required.

Conclusion

Innovation opportunities in the market and with technologies often are detected through signals outside the experience base of senior managers; by employees who are using their heads as well as their hands. Accordingly, senior managers often commit support to these initiatives based on the process used to develop them versus the sheer force of the idea itself; visible, structured decision support processes provide the opportunity for senior executives to articulate why some ideas are supported and others are not. Use of a complete decision support process, like SCORE, can demonstrate to talented employees the organization's capacity to consistently create opportunities in the future which meets the needs of desired customers.

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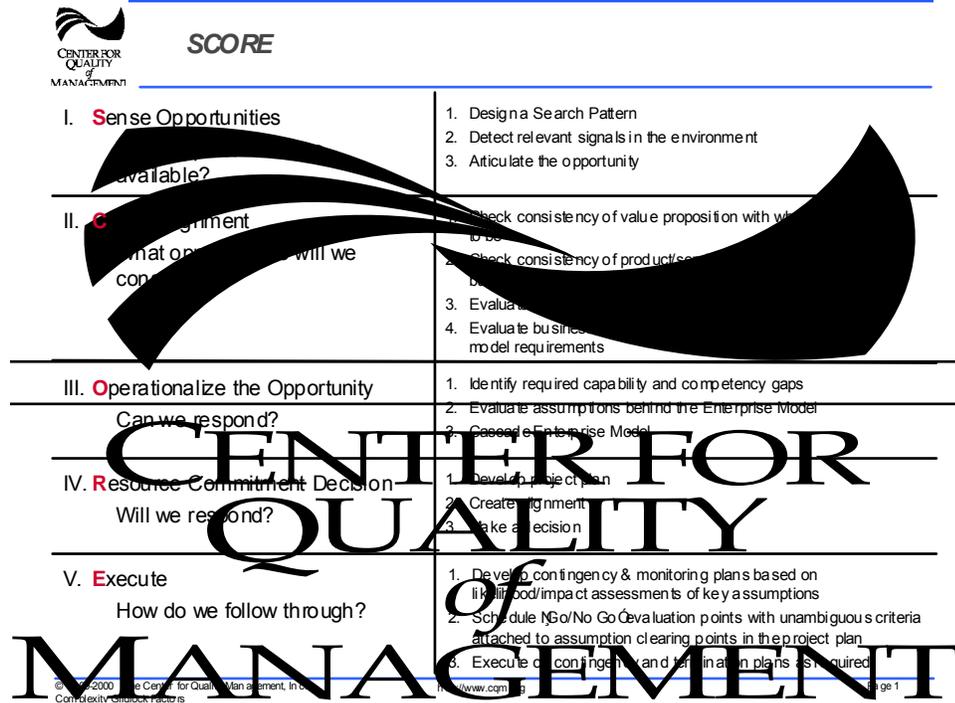


Figure 1



Articulate the Opportunity using the 5P Frame

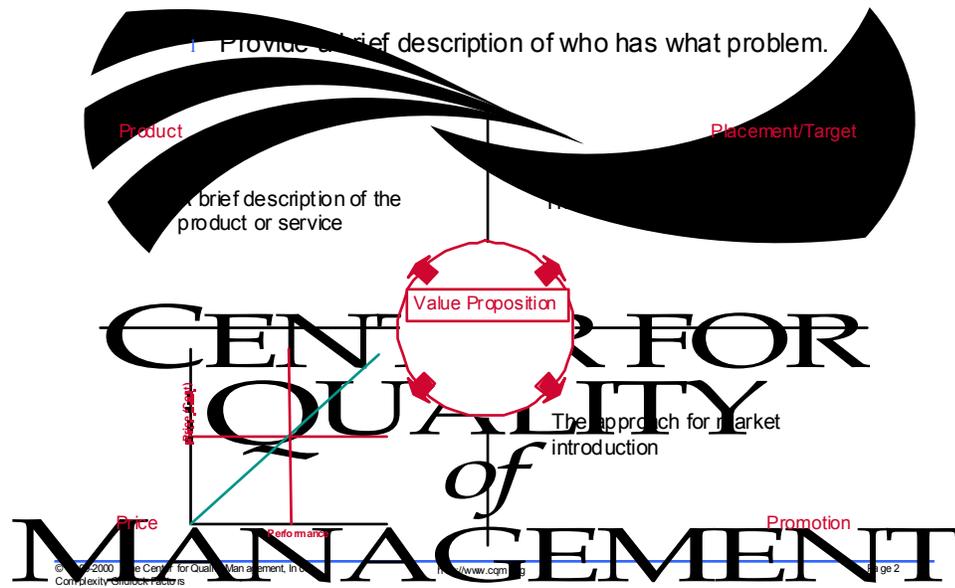


Figure 2

Disguised Example: 1st Level Reverse Income Statement

	Value	How Determined
Profits (Income before tax)	\$32M	Project Target
Sales	10%	Company Policy
Return on Assets	10%	Company Policy
Revenue	\$320M	Required Revenue = Required Profits / Required Return on Sales
Total Cost	288	Allowable cost = (1-ROS) x Required Revenue
Price	\$1.28	Product / Service Concept (Stage 1, Step 3)
Unit Volume	250M	Unit Volume = Required Revenue / Allowable Price
Investment	\$320M	Allowable Investment = Required Profits / Required Return on Assets

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Figure 3

Top-Level Enterprise Model: 1.4 Assess Competency Gaps

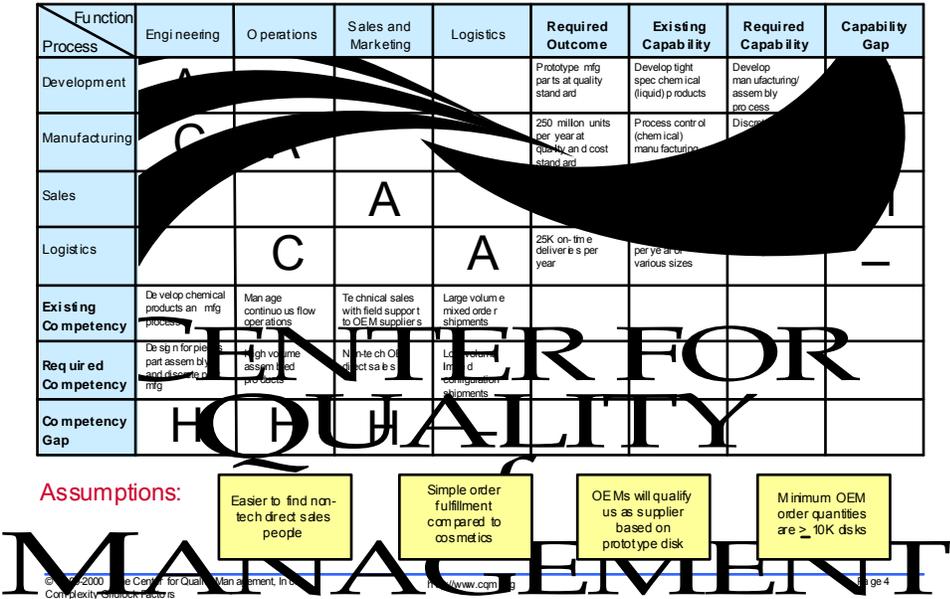


Figure 4



Disguised Example: Project Plan — Activities, Outcomes, Assumptions & Investments

	Investment	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Activities	Development	1.60M	▲ Prototype Development															
	Manufacturing	1.6M	▲ Subcontracted Development															
		8M	▲ Pilot Plant Construction															
		8M	▲ Pilot Plant Production															
		30M	▲ Main Plant Construction															
		16M	▲ Main Plant Production															
	Sales	0.4M	▲ Market Analysis															
		0.48M	▲ Subcontracted Sales															
		3.2M	▲ Pilot Sales															
		16M	▲ Main Sales															
	Logistics	4M	▲ Pilot Inventory															
		48M	▲ Main Inventory															
Major Outcomes				5	1		6	7	3	8	2							
Critical Assumptions			1		6		3	5	4									
Investment Schedule \$M	Development	0.4	0.4	0.4	0.4													
	Manufacturing			0.3	0.2	0.2	0.2	0.2	2	2	2	2						
					.8	.30	.30	.30										
	Sales	0.2	0.18	.12	.12	.12	1.2	0.8	0.8	0.8	0.8	0.8						
Logistics					4		4.8											
Totals	0.6	0.4	.88	8.72	64	3.5	7.6	7.6	6	6	4							

Figure 5