

# POLICY & LEVERAGE

A Publication Devoted to Meeting the Challenges of Rapid Change - Issue 3, Fall 1998

## Welcome

With this third issue of our newsletter we have revised the format to accommodate longer discussions. In addition we changed the name from **Insights to Policy and Leverage** to better reflect the focus of our business and writings.

Our goal remains to share ideas that we believe you will find useful and to raise topics and issues which we believe deserve consideration.

## Building Strategic Advantage

Traditional strategy frameworks evolved in an environment wherein companies, their suppliers, their customers, and their competitors all behaved relatively independently. In that environment, competitive edge was generally achieved through some structural advantage over the competition - better technology, efficiency, location, etc. The validity of traditional strategic frameworks has diminished as global communication and competition have given competitive edge to alliances, webs, chaebols, and other "close" relationships. At the same time, accelerating change has diminished the viable life of many strategies. As a result, the more methodical traditional approaches to strategy have diminished in value.

Networks require intense communication and shared understanding. Accelerated change requires flexibility and accentuates the need for communication. Failure to communicate or share (or, as a minimum, understand) values across the network lead to local optimization with the risk of disrupting, impairing, or damaging the network. As interconnectedness increases, the fitness of individual organizations becomes increasingly dependent on the fitness of the whole. Local actions must increasingly recognize global impact on the entire network if overall fitness is to be maximized.

While traditional approaches continue to be appropriate for situations where organizations are independent and the environment is relatively certain, those conditions are increasingly rare. We feel that the pace of change and interdependency is such that strategy development must become an ongoing evolutionary process wherein an organization and its networked partners must continually work together. We see the overall keys to success as residing in three areas:

- robust strategies that accommodate uncertainty
- alignment of goal and values across the organization and network
- awareness of emerging trends, issues, and uncertainties which threaten the existing goals, values and relationships.

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These activities reside in a cyclic pattern similar to a learning organization with a period appropriate to the pace of change in order to maintain alignment and coordination.

Every year new frameworks appear for solving management's problems - TQM, core competencies, value migration, learning organizations, and the balanced scorecard are just a few examples. These tools and methodologies can be very helpful in specific situations, but they overlook the key point of total alignment. It is our experience that beginning the problem-solving process by building strong alignment (under an appropriate level of uncertainty) leads to stronger solutions.

We see the root of organizational misalignment arising from the broad goals the organization sets for itself. Those goals, in turn are used to set local goals which support the higher goal.

Figure 1 illustrates a set of goals arising from a higher goal of "maximizing profits."

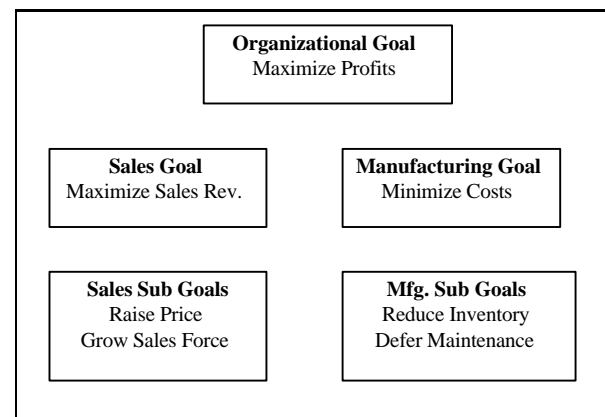


Figure 1 Organizational Goals

Management occasionally leaves interpretation of such goals to lower levels. In this simplistic example the goals at each level appear to be supportive of the higher level goal. Pursuit of the lower level goals would be expected to lead to trouble. While this example is somewhat simplistic and deliberately flawed, similar misalignment of goals occurs frequently where mental models across the organization have lost alignment.

The first step in a process of total alignment involves communicating across the organization to build a common understanding of the system and situation under consideration, in this case, "Maximizing Profits." Our *System-wide Discovery* process builds shared understanding in two critical areas - clarifying not only semantics but also implications of actions across the organization. This prepares the team to address the problem in a coordinated manner with awareness of the perspectives across the organization.

The organization has multiple levels for developing strategies to address problems as illustrated in Figure . We use *direct leverage* when we address problems in ways that generate near term, local effects. Examples would include eating to satisfy hunger, or having a sales promotion to increase sales. Human thought processes and conventional planning processes are relatively effective in situations like this and are most appropriate where there are no significant side effects. Our thought processes and methods don't generally work so well when the results or impacts are delayed, or occur in a different part of the organization.

We use *dynamic leverage* when we use feedback structures with the results we want. We design our work to help us do our jobs better, rather than the more typical uphill battle.

The third form of leverage involves aligning the structures and goals across the organization to insure consistency. We call this *structural leverage*. Structural leverage can only be achieved by careful, deliberate analysis and planning. Shared vision is not always enough. It is our experience that you generally get what you measure (and reward). Thus, we generally find the most effective approach to achieving structural leverage to lie in setting performance metrics and reward structures which encourage synergistic behavior across the organization.

## Perspective

One of the more valuable methods of gaining new insight into problems lies in reframing an issue or problem under consideration to provide a new perspective. In this issue we will explore the explosive rate of change that challenges our ability to plan and manage. This issue tries to provide a new perspective to change and its impact on organizations.

### A MAZE

Imagine you live in a large maze. You were born in the maze. During your early years your parents and teachers helped you learn to navigate the maze. Learning the maze was exciting. You explored, but you could never know the whole maze so there is always something new to find. You went to work and began to learn about a new section of the maze. Occasionally a new wall would be built, or a new door installed, but change was slow. Routes through the maze became familiar – habits in fact. Over time you explored less. You shared experiences with your friends and coworkers. Collectively you identified the best routes through the maze. The fact that a new door

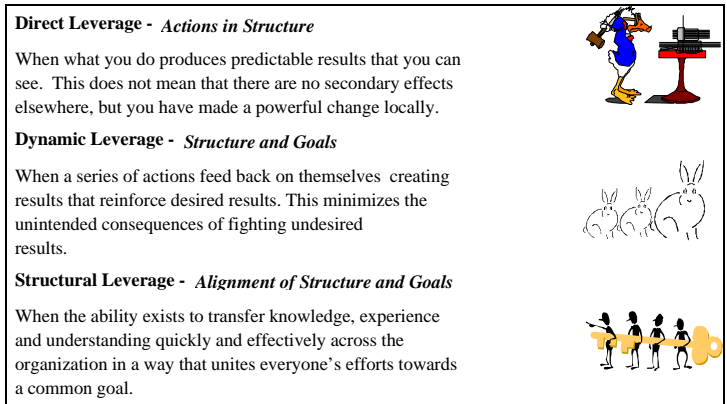


Figure 2 Three Forms of Leverage

There are three ways of achieving higher productivity in an organization as shown in Figure 3.

We believe that the highest performance will occur when everybody understands the key characteristics of the organization and the incentives across the organization are aligned. We call this synergistic ideal *systemic leverage*.

By beginning at the top with a coordinated vision of the organization, the dominant relationships are kept in vision as lower level details are incorporated. Organizational structures, performance measures, and incentives can then be designed to complement each other to promote improved performance.

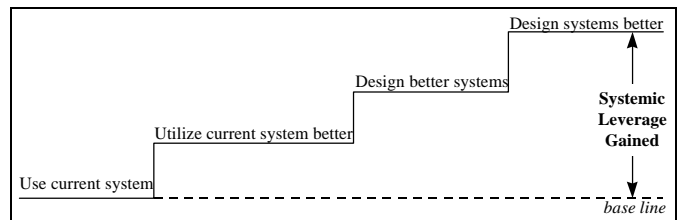


Figure 3 Three Ways to Improve on Current Conditions

offered a new, shorter route was often overlooked because it lay around a corner you no longer traveled. Exploration was occasionally driven by the erection of a new wall or competition. However, as the rate of change was low, exploration was minimal.

### Accelerating Change

Imagine now that the pace of change begins to accelerate. Not only does the rate of new doors and walls being installed increase, but new technologies complicate the picture by adding hurdles, sub-mazes, trap doors, and skywalks to the old familiar passageways. How do you respond to these new obstacles and opportunities? Experience indicates the first reaction to these changes is frequently frustration. Your old mental models no longer match reality. You are disoriented and confused. Persistence in old habits cannot build a better understanding of the maze. The maze continues changing at an increasing rate. You cease to know what to expect. Do you view the changes as obstacles or opportunities? Habits break down as each pass through the maze is a new experience with new and un-anticipated challenges. Your network of communication becomes

more important, for you need timely knowledge of others' experiences and views to be as effective as possible in maneuvering through the maze and in solving its puzzles.

#### Increasing Interdependence

In a maze such as this, your "fitness" would relate to your ability to navigate the maze. To be highly fit in a rapidly changing maze you would need to have access to the knowledge and insights of others as personal experience would be unable to maintain a high level of knowledge of the maze. Your communication network would be vital. You would also need an openness to new ideas and concepts and a willingness to change. In a rapidly changing maze your fitness becomes dependent upon the fitness of those with whom you share information.

There is no common scale for measuring the rate of change, nor of fitness, nor of our interdependence. It seems evident that the rate of change today, while much greater than a hundred years ago, has not reached the point of continuous change which equates to chaos. We surmise that we are at some moderate point where the rate of change has grown somewhat uncomfortable. Meanwhile, current networks and information gathering systems are not developed adequately to accommodate the pace of change. We are still following

many of the old, "comfortable" business models though we suspect they are lacking. Has the time come when your organization needs to find alternatives to established ways? It seems that business is at a point where increased acceptance of change and pursuit of the opportunities created by change offers the greatest opportunity for "fitness" if we can only form the right networks.

#### Summary

We feel the expansion of global trade and communication provides a second major contributor to the growing rate of change and interdependence. As we see little evidence that either the rate of technological change or of globalization are likely to slow any time soon, we anticipate continued high rates of change and growing interdependence will continue. This appears to have major implications for personal, corporate, and governmental organizations. In brief these observations may be summarized as increasing fragmentation in society and business (in the form of specialization and specific interests) and increasing difficulty in maintaining a competitive position above the norm. Both of these observations reinforce the importance of the network in establishing and maintaining competitive advantage.

## Trends

SDSG's resident futurist, Jay Forrest, maintains an ongoing information scanning effort for the purpose of identifying uncertainties and emerging trends to support our consulting activities. In this section we share some of Jay's observations. Please feel free to contact Jay at [jayf@sdsg.com](mailto:jayf@sdsg.com) if you would like more information.

#### THE Y2K PROBLEM

It has long been evident that some level of disruption will occur from computer and embedded chip failures related to our passage into the next century. It has also been evident that, barring massive failures, public reaction will play a major role in determining the impact of this event.

Until recently it appeared the public would discount the problem (and the majority may continue to do so until the end).

Over the past few months the level of rhetoric has grown dramatically. This rhetoric ranges from serious debate to sensationalist promotion with the purpose of commercial exploitation. Public concern appears to be growing rapidly as stories of people taking drastic action spread.

While on vacation in September I heard a radio ad for a "survival store" which highlighted the Y2K problem and the fact that they had freeze dried food packaged in one week, one month, and one year bundles. Expect commercial exploitation of the Y2K problem to promote paranoia through 1999. Also expect public concern to grow through with some level of panic from the "unprepared" as 2000 approaches. The 1999 economy should receive some boost from pre-Y2K inventory building. The year 2000 economy will pay the penalty as the survival inventories are worked off. It would be wise to consider how hoarding or survival related purchases in 1999 might impact other products and industries.

#### AUTOMOBILES

The recent introduction of the Volkswagen Lupo and the Toyota Yaris at the Paris Motor Show mark what may be some significant trends in the automotive industry.

The Lupo is the first commercial car to get 90 mpg. Both are turbocharged direct injection (TDI) diesels. BMW has already introduced a TDI diesel. Mercedes, Alfa Romeo, Rover, Peugeot, and Citroen will soon have vehicles with TDI engines. These new engines are reported to be as quiet and smooth as gasoline, with lower emissions and higher mileage. These cars should do well in Europe and Japan. Acceptance in the U.S. will be slower.

These cars mark a substantial increase in the number of vehicle models capable of 60 mpg or higher and make emission control legislation much more feasible. These vehicles also significantly diminish the appeal of battery based electric cars (for meeting pollution goals).

The high mileage auto market is likely to boom globally over the next few years as new engine technologies and hybrid (gasoline/diesel-electric) enter the commercial market. It will be interesting to see how long it takes for these vehicles to penetrate the U.S. market. Economic impact is likely to show first in the auto makers (who has the "right" technology). Reduced operating costs could show in higher disposable income. Impact on petroleum companies will be gradual as sales of conventional vehicles are likely to continue for some time and even a total switch to high mileage vehicles would require fifteen to twenty years to replace the existing fleet in the United States.

#### COMPUTERS

Recent industry statistics indicate that 46% of the U.S. homes have computers and that sales to households without computers is essentially nonexistent. This implies that the dynamics of the industry has shifted. That shift is already evident as experienced computer

users are much more likely to buy generic or mail-order computers than “new” purchasers. (Note the growing market share of Dell Computer.)

We anticipate that companies will seek to create services to differentiate themselves and capture greater income from their customers. (Note: Gateway is now effectively “leasing” computers with optional biennial hardware upgrades.)

Having the number of households with computers stabilizing also has interesting implications for the software industry. Upgrades will be an ever more important source of income.

**GLOBAL WARMING**

The Houston Forum hosted a half-day conference featuring a half dozen of the academic leaders of the global warming debate. Consensus was that climate warming is occurring and that human activities are measurably contributing to warming. Levels of concern varied from none (warming will be favorable if you don't live on a low island) to significant. While the participants generally favored curbing greenhouse gas emissions though the majority did not support the Kyoto pact as they saw it as totally inadequate.

The point is not really what the experts believe as no one really knows what is going on. (For example, ice specialists studying Antarctica typically state that they believe the ice shelf degradation and 4-6 degree temperature rises in parts of Antarctica are not appreciably influenced by global warming.) More pertinent is that unusually hot summers and perceived increases in violent weather can be expected to stimulate public concern and support for action. Many of the “suggestions” sound good (like California mandating sales of zero emissions vehicles) and may address symptoms directly but often (usually) have secondary impacts that are highly negative. We encourage everyone who has an interest in the global warming debate to get involved and to pursue facts. Failure to be involved could encourage flawed reactions.

**URBAN SPRAWL AND QUALITY OF LIFE**

Signs of a *quality of life* movement has been evident among the better educated, affluent, and informed for many years. We have long

*Books of Note*

**STRATEGIC THINKING AND THE NEW SCIENCE**

by T. Irene Sanders, The Free Press, 1998. This book offers the most comprehensive approach to planning in a complex, chaotic environment to date. Sander's proposes that seven principles provide the framework for strategic thinking as defined by “the new science:”

1. Look at whole systems, not just their parts.
2. There is a relationship between order and disorder, and self-organizing change occurs as a result of their interactions.
3. A small event in one sector can cause tremendous turbulence in another.
4. Maps, models, and visual images make it easier to see connections, relationships, and patterns of interaction.

anticipated some form of move to lifestyle simplification with implied reductions in materialism and some form of urban reformation. We believe that this movement which we refer to as “The Europeanization of America” is likely be a leading economic growth segment. (This movement can be summarized as a move to *quality vs. quantity*.)

Pursuit of *quality of life* in the United States has historically included individual houses which resulted in movement from center city to suburbs, promoting urban sprawl. In many communities the penalties of sprawl show signs of becoming a topic of intense debate. While the details of local protest vary somewhat, common issues include:

- Deterioration of quality of life due to traffic congestion and poorly planned sprawl
- Tax issues as the tax base shifts away from communities and taxpayers subsidize infrastructure expansion.
- Concentration of poverty and dispersion of wealth
- Creation of a diffuse infrastructure which makes mass transit difficult or impossible, limiting flexibility for dealing with future issues and wild cards.

Environmental scanning indicates that dialogue concerning sprawl has entered new territory as minorities and lower income groups are beginning to enter the fray. On October 6, the Ohio Urban University Program reported that they had brought together 400 people to discuss sprawl in regional focus groups around the state. Religious groups are forming to address sprawl in Missouri and Minnesota. While the movement has failed to gain the attention of many politicians to date, proponents of urban development controls have gained the attention of the governors of Maryland, New Jersey, Oregon, and Colorado. While it is premature to declare that sprawl will become a major political issue nationwide, the discussion appears to have intensified and could result in significant shifts in policy around real estate and business development. Given the mentality of highway development officials and the lack of consideration of social impacts of highway development we suspect this will become a major issue. [Note: Jay Forrest has served on the Houston Region Advisory Committee for the Texas Department of Transportation.]

5. Scanning across disciplines and industries is the key to seeing emerging conditions, paradigm shifts, and opportunities for innovation.
6. Nonlinear thinking is critical to recognizing clues about changes in the environment.
7. Perspective is important when viewing chaotic events.

The author further suggests that the new planning paradigm involves:

- “dynamics of the whole,”
- strategic thinking and planning as an ongoing process,
- foresight, and
- proactive change.

The book is relatively straightforward and echoes a number of elements which underlie our philosophy at SDSG. The weakest facets of the book relate to the lack of rigor in the processes and the failure to recognize the variety of tools and approaches available for addressing the issues raised by the author. Reaction from fellow readers has ranged from "the best book on planning I have read" to "Simple, but nice." The book is appropriate for those striving to understand how a cohesive, long-term planning system might work, but expect the insights from the book to be rather general and topical. We think our (SDSG) integrated Systemic Leverage™ process provides a more practical, rigorous, and integrated approach to meeting the issues Ms. Sanders raises.

**THE FUNCTIONS OF THE EXECUTIVE**

by Chester I. Barnard. Harvard University Press. 1968. Originally published in 1938, this seminal work by an ex-President of the New Jersey Bell Telephone Company, still inspires those of us who think

about organizations. Various Nobel Prize winners cite their inspirations from this book. In a very structured manner, Barnard develops the concept of the "cooperative organization." In framing cooperation as a concept, he defines the effectiveness and efficiency of cooperation. Effectiveness measures the achievement of the desired goal – most managers are familiar with this definition. Efficiency measures the difference between the achievement of the desired goal and the unintended consequences that result from that effort – this systemic definition is not familiar to most managers. Experts have struggled for sixty years with implementing the cooperative concepts Barnard puts forward, for lack of the tools to systematically design cooperation into organizations – before systems thinking (how interrelated pieces behave over time), managers had no tools with which to think analytically about unintended consequences. Systemic Leverage provides the framework, process and tools to achieve the fundamental concepts that Barnard laid down sixty years ago. Though his style is a bit difficult at times, Barnard provides a golden nugget of wisdom on organizations and their design on every page.

*Odds and Ends*

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**Workshops**

Introduction to Systems Thinking public workshops are scheduled as follows:

Nov. 16-20	Seattle, WA
Dec. 7-10	Washington, DC
Jan. 11-15	Woodstock, VT
Feb. 8-12	Marina del Rey, CA

Those courses will be taught by High Performance Systems, developer of iThink software. SDSG will be teaching the course in Miami in Spanish at a date to be determined. Call HPS at (603)643-9636 for info.