ALLIANCES AS ENGINES OF INNOVATION
How Leading Companies are Creating the Innovation Needed to Compete

by Robert Porter Lynch

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Growth & Innovation are Top of Mind for CEOs

Ask virtually any CEO about priorities and invariably growth and innovation are top of their mind. Then ask precisely where they expect the growth and innovation to come from: organic growth, acquisitions, or alliances, and for the vast majority of senior executives, their certainty about the sources turn to puzzlement and ambiguity.

This ambiguity is not because of poor leadership, but because the business world is changing at a bewildering pace. In executive seminars over the last four years we asked over 2000 senior managers all over the U.S. Canada, and Europe to graphically express what the impact was of the rate of change/speed/complexity was since 1970.

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Accelerating Rate of Change

Amazingly, for over 90% [1]of the executive responses the curve looked thus (Figure 1)[2]:

This astounding concurrence represents the dazzling shift that has rocked the very foundations of organizational thinking. But with this shift, executives have been caught flat-footed. In the first half of this era (1970-1990), the business world was slower moving, a period of relative predictable change, characterized by five and ten year strategic plans and three year sales forecasts. Organizations were stand-alone and predominantly hierarchical. The rules of management in this era had been developed from years of experience, handed down through generations of tradition and the esteemed learning from our business schools.

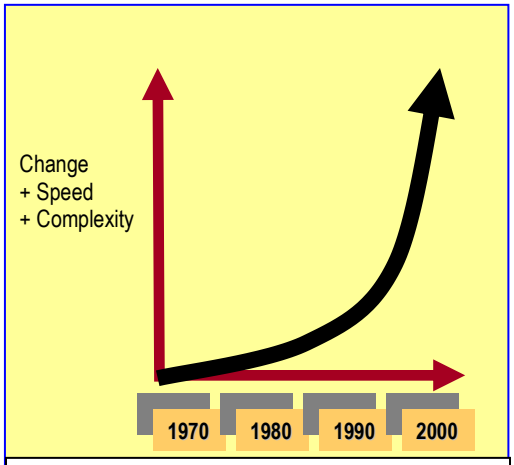


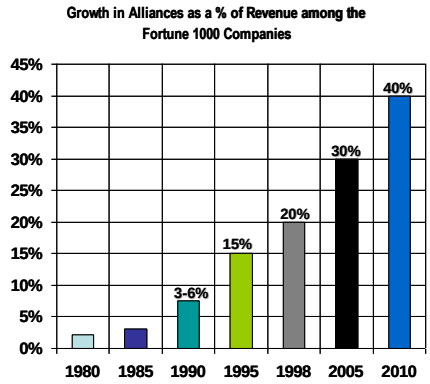
Figure 1 -- Graphic Depiction of the Rate of Change in the Business World

Then hell broke loose. Fired by the forces of change (see footnote #1), what was once a somewhat predictable world almost instantaneously suffered a tectonic shift, becoming fast, discontinuous, and unpredictable. Long term strategic plans were suspended, sales forecasts scaled into shorter horizons, and alliances burgeoned to enable adaptation to the shift. (see Figure 2)

With less predictability came stiffer pressures and penalties from Wall Street. Downsizing, rightsizing, and outsourcing, coupled with cutbacks in R&D were made to boost shareholder's bottom line demands. Criticism was leveled that companies had "hollowed out their core."

In the face of this massive shift in speed, complexity, and change, the need for innovation becomes essential for business survivability. Out of the survey group, the overwhelming majority concurred that *"In a fast moving, rapidly changing world, the most sustainable competitive advantage is innovation."*

Figure 2 -- Growth in Alliances



[1] The only difference among these 90% was the point of inflection where the curve changes direction radically. For those in very rapid change industries, such as high tech, the point was generally between 1986 and 1990. For those in slower changing businesses, such as petro-chemicals the point tended toward 1995-7. The primary reasons for the shift cited by executives were: computers, faxes, globalization, cell phones, then the internet, each compounding upon the other.

[2] Author's Note to HBR: The implications of this phenomenon, from a predictable, slow-time world to a integrated fast-time world are massive. It affects every aspect of management. I have other material to help the senior exec manage this shift.

Simply put, Collaborative Innovation is the most robust and regenerative way to create true value and growth.

"In a fast moving, rapidly changing world, the most sustainable competitive advantage is innovation."

However, today's CEO is faced with a difficult dilemma: For technical innovation, most internal R&D is insufficient to produce the massive amount of innovation required to meet the challenges of this new hyper-active world. Further, process innovation requires a reengineering of supply and delivery chains, requiring an alliance connection up and down stream.

The explosive surge in strategic alliances over the last fifteen years (see figure 2) has been the result of companies address the question: *"Where will we find the growth and innovation necessary to meet these new demands?"*

Dr David Burt, Chairman of the University of San Diego Supply Chain Management Institute says:

> "Innovation is the most effective strategy for combating competitors with low price structures. Companies cannot continue to cut costs indefinitely without killing their supply base."

Seeking an "Architecture" for Collaborative Innovation

Over fifteen years ago, seeking an approach to reverse the terrible success-rate of strategic alliances, our team conducted a "best practice" analysis of alliances. This resulted in the creation of an *Alliance Architecture* that, for the first time, provided an applied system of solutions, strategies, structures, processes and metrics for creating, launching and managing high performance strategic alliances. This architecture has resulted in shifting the success rates of strategic alliances from a dismal 25% in the early 1990s to a respectable 50-80% success rate now. [3] Consider this statistic:

> *In 1990, alliances contributed a mere 2-3% of the revenues of Fortune 1000 companies. Today alliances strengthen their revenues by a factor of 30% and that proportion is still climbing*.

Beginning in 2002, our team commenced an updating study of alliances that had sustained themselves over a period of more than five years. Based on this analysis, we concluded that the alliance's ability to generate innovation was a significant factor in long-term sustainability.

But more importantly, we found alliances were a powerful *source* of innovation as well. By capitalizing on the "synergy of compatible differences," alliances hold unique potential as engines of innovation, enabling the transformation of new ideas into new products, services, and solutions. (for full results from the study, see footnote[4])

[3] Percentages vary based on several studies in the US and Europe. Simple use of best practices tends to yield at least a 50% success rate, and a more disciplined approach tends to yield significantly higher rates.
[4] See http://www.enginesofinnovation.com/html/innovation_study.html

Problems Executives Typically Face

In our many discussions with senior executives, we found three recurring themes:

1. While Growth & Innovation are Top-of-mind, our Efforts are Falling Short:
   - "We're just not generating enough new revenue"
   - "Innovation remains a set of scattered, tactical/small scale efforts"
   - "Sadly, innovation is killed during our acquisitions"
   - "It's occurring, but at a very slow rate – too slow to impact the market"
   - "R&D is just not paying off; it may be a waste of money"
2. Innovation is Ambiguous and Confusing:
   - "Innovation appears to be nothing more than a pastiche of slogans, tools, techniques, aphorisms, and platitudes, with not enough real results"
   - "Innovation doesn't seem like it's based on any kind of concrete management system, so I can't seem to get my arms around what to do."
   - "Our approach seems to contain too many tools & techniques; it's confusing what to use and when to use it"
   - "We are only focusing on technology – that's just too narrow".
3. The Innovation Onslaught is a Massive Competitive Threat:
   - "Our competitors are out-innovating us – it seems double, or even triple ours rate"
   - "If we don't do something powerful, we might become extinct"

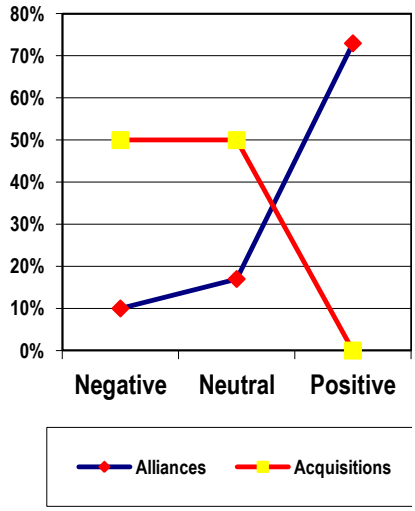
Any Collaborative Innovation Architecture must address these issues directly, thus putting senior management back in control of its innovation program with the expectation that their initiatives will result in a powerful Innovation Engine.

Alliances Grow Innovation, Acquisitions Kill It

For those companies that have looked beyond their internal organizations for innovation, and chosen the acquisition avenue, generally the results have been less than stellar (see Figure 3)[5]. Despite years of acquisitions, indigestion is still the typical result in nearly two thirds of the deals. The business landscape is littered with graveyards filled with failed mergers and acquisitions. As a senior pharmaceutical executive commented,

> *"our competitors benefited most after our recent acquisition. We got the product, the brand and the facilities, but all the people with the brains and new ideas fled to join the ranks of our smaller, more hospitable competitors."*

Figure 3 -- Impact of Alliances & Acquisitions on Innovation – University of Einhoven Study



[5] Study Conducted by Geert Duysters at University of Einhoven, 2003

However, an ever-increasing cadre of leading edge companies has adroitly navigated through the sea change, recognizing that neither internal growth nor acquisitions will be the predominant source of innovation.

Companies like Eli Lilly, IBM, Cisco and P&G[6] have found the alliance avenue to be a fruitful source of continuous streams of innovation. Each company approached its unique industry with surprisingly similar strategies, practices, and obtained highly successful results. Their examples can give us tremendous insight into how others can achieve similar success and what the future may hold in store.

What's more, even companies that have a legacy of poor alliance performance can make the leap, as General Motors's OnStar Division masterfully illustrates.

Two issues must be addressed:

1. Strategically: Why are alliances so important to innovation?
2. Operationally: How do we make the alliances work as Engines of Innovation?

Why alliances are so important to innovation

Alliances are particularly well positioned to produce innovation because they enable fluid access to the fundamental source of innovation: Differentials in thinking. The old adage "if two people in the same room think alike, one is unnecessary" prevails in the world of co-creation.

What stimulates innovation are minds who see the world from new and differing points of view.

Thus, by tapping into the co-creative energies of differentials in thinking, and aligning those energies positively, cross-boundary alliances can become *the unique structure* in an organization to unleashing the innovative potential of the synergies of differentials.

However, while new paradigm generation originates from people who do not think alike, all too often people with different perspectives cannot synergize, or worse, they disregard or even destroy the value from those with whom they don't share a common perspective. An effective Collaborative Innovation Architecture creates vital synergies, not letting the forces of division destroy them.

What stimulates innovation are minds who see the world from differing points of view. This was the fundamental premise of Thomas Edison's first "innovation factory' at Menlo Park in the 1870's. He brought together chemists, machinists, electricians, glass blowers, mechanics, and metal workers to perform a multitude of "experiments" to invent devices to harness electricity, produce light, sound, visual images, among hundreds of others.

Cross-Industry Innovation

In the 21st century, a great many innovations are being spawned not within a specialized field – like chemistry, physics, or biology – but between fields.

[6] For P&G and Cisco, in particular, their acquisition approach is remarkably similar to its alliance methodology, which has produced a strong track acquisition success rate along with innovation streams, quite contrary to the normal result from acquisitions.

For example, the genomics research involves the confluence of biology, computers, chemistry, and informatics; no single specialty can solve the problem.

For many companies today, their products and services require a careful amalgam of integrated solutions to form the foundation their competitive offering.

GM's OnStar Division is a good example. By adroitly architecting a multitude of different service providers, OnStar can give its subscribers an innovative and

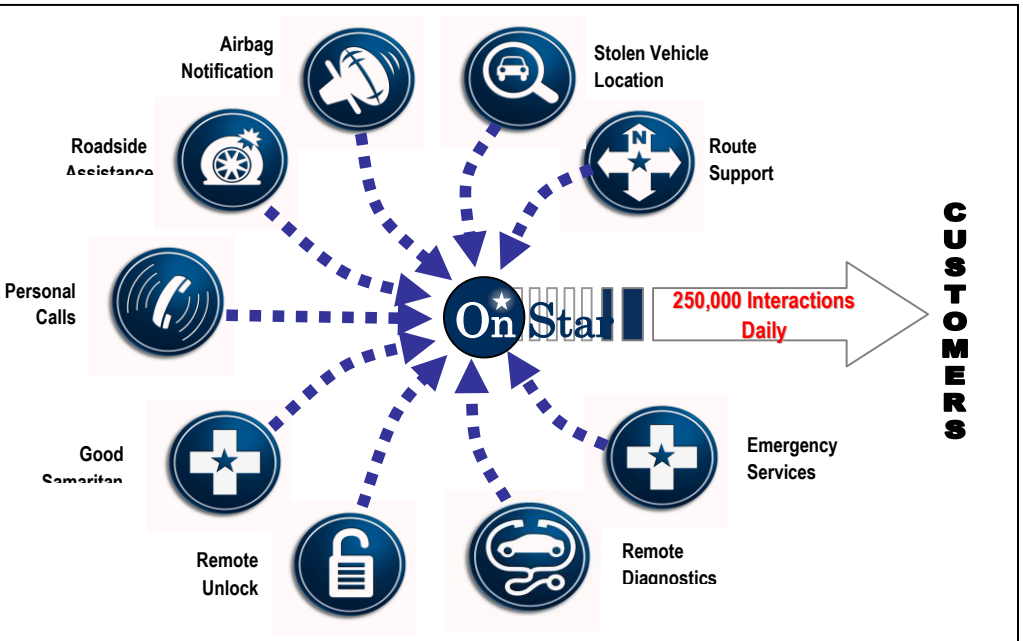


Figure 4: OnStar Constellation of Integrated Service Suppliers

completely integrated "solution" which enables the customer to navigate using GPS, locate a stolen car, unlock a car without keys, call for emergency roadside assistance, among a wide variety of services. OnStar was started with a very small investment on GM's part, which produces an excellent return on its investment. The critical factor is how the network (or "constellation" – see figure 4) continually creates innovations to provide value and keep excellent market share.

Because alliance partners have specialties in different fields, they can use their differences synergistically.

For example, IBM's service capabilities in IT applications are used with Cisco's hardware prowess in Internet network design architecture to produce an integrated systems solution. Together, they are able to innovate to adapt with Darwinian skill to new situations and needs in the field. With each adaptive innovation, both companies grow stronger. Today the IBM-Cisco alliance sells over $2 billion of hardware and services annually.

Supply Chain as a Source of Innovation

In a recent study headed by David Burt of the University of San Diego's Supply Chain Management Institute, it was found that a remarkably low percentage of companies received their innovation from suppliers. However, some best-in-class companies, like Toyota and Honda were receiving a substantial amount, perhaps in excess of 50%.

Why such little interest in innovation from suppliers?

> *"Because historically supply chain managers have come either from the ranks of procurement or logistics, and report to operations or finance,"* observes Dr. Burt. *"The pressure to 'cut costs' are preeminent; hacking and dicing suppliers has become an art-form. In the process, innovation from suppliers is not rewarded, and therefore overlooked, or worse, suppressed. As the relationship between buyer and seller becomes adversarial, the creative juices for innovation dry up or are poisoned. Suppliers are probably the fastest and least expensive source of innovation, representing a largely untapped wellspring of innovation."*

From "Research & Development" to "Connect & Develop" – P&G

Procter & Gamble has made remarkable strides to break out of the "squeeze the vendor" mold, replacing it with a far more effective, profitable, and innovative approach which recognizes P&G should not try solely to cost cut its way to prosperity. Beginning in 2002, under the leadership of Steve Rogers, then Director of Procurement, P&G took a bold new approach to suppliers. Rogers said:

> *"We needed to recognize that 'vendors' selling commodities were an entirely different type of supplier from those more strategic to our interests. Vendors were essentially those commodity suppliers that were distinguished primarily by price and where low-cost 'bargaining' was appropriate.*
>
> *"At the other end of the spectrum were the strategic suppliers who could provide us with unique products and/or services, and from whom P&G could expect to catalyze innovation streams. By improving the relationship, building trust, and using better diagnostics to gauge the relationship, we are better able to create greater flow of innovation."*

The alliance-oriented strategic suppliers would be treated with much greater personal attention from the supply management team, which would build a strong strategic vision for their mutual future, foster a relationship based on trust and win-win sharing of risks and rewards.

At the same time, CEO A.G. Lafley and Senior V.P of R&D, Larry Huston, recognizing the strategic value of innovation, set their sights

P&G – HP OUTSOURCING ALLIANCE
P&G outsourced its IT System to HP in 2003. A year after the review of the relationship, it was clear to P&G that the 1400 page contract not only drove the relationship into a vendor-based interaction, but that no mention was made of the key issues of win-win and innovation. Seeing that their relationship should be far more strategic and recognizing the necessity for long term innovation over the life of the ten-year contract, both parties repositioned their relationship to make it an alliance with sharing of risks, rewards, and development of joint innovation teams. IT performance has increased dramatically as a result. When P&G acquired Gillette for $55 billion, the new collaborative arrangement with HP made the integration of Gillette's IT system far less painful.

high. They determined P&G should be receiving 50% of its innovation from outside sources, without reducing the ranks of its 7500 people dedicated to R&D. (See HBR March 2006)

In one bold stroke, P&G effectively doubled its innovation flow. Alliances with suppliers were to provide a large proportion of that flow. Now "Research and Development" had evolved to "Connect and Develop" with a wide-ranging network of outside sources of innovation. Today, fully 40% of P&G's innovation comes from the outside.

Has it had an impact? P&G's stock has been rising constantly for the last five years, increasing by nearly two-thirds, while the S&P index has been essentially flat. Lafley attributes a large proportion of this growth to innovation:

> *"We continue to lead in innovation. In many regions and countries, innovation has been an engine of growth for us. …. We told everybody to stay focused on delivering on their current business plans, and if involved, focus on delivering a great innovation….. It's a process that can be managed."* [7]

Pharmaceuticals: Lilly Generates an Abundance of Innovation

Pressures for innovation in the pharmaceutical industry are intense. With only a limited life-span of patent protection, every pharmaceutical company must have a continuously replenishing wellspring of new compounds or be relegated to obscurity.

A difficult decision faced Indianapolis-based Eli Lilly in the 1990's. With the patent for its block-buster drug Prozac ready to expire, and no prospects for a replacement blockbuster on the horizon from their internal R&D group, Lilly realized it was a potential target for a takeover; something its mid-West culture abhorred.

With organic growth an insufficient option, and not desirous of suffering from the indigestion of devouring another pharmaceutical company, Lilly was faced with the other option: form alliances with smaller bio-tech firms and other pharmaceutical companies who had prospective compounds that might lead to a category-leading drug.

However, Lilly faced a major obstacle. Lilly commissioned a study of how it was regarded by bio-tech companies. To its dismay, Lilly was rated a lowly seventh as a prospective alliance partner, far behind such giants as Merck, Pfizer, and J&J.

A team was directed by the Board of Directors to correct the situation and establish an Office of Alliance Management to build Lilly's alliance management capability. With a disciplined adherence to using "best practices" in the formation and management of alliances, Lilly chipped away, year by year gaining more and more respect in the bio-tech ranks. Its reputation deservedly improved until 2004, when Lilly was ranked #1 in partnering capability. At that time Lilly had created an abundance of innovation flow to

[7] Interview with Ron Insana, quoted from USA Today interview, Monday, February 06, 2006, Page 8-B

fill its pipeline. Gary Stach, executive director of Alliances at Lilly recognizes the impact of alliance relationships:

> *"We are disciplined in training our people on how to interact with the staff of other companies. We choose people to manage alliances that are good at both seeing the big picture and creating trusting relationships. These skills are also beneficial at helping our cross functional integration."*

Cisco uses Alliances for Go-To-Market Innovation

Cisco's ability to survive the melt-down of the internet bubble burst is in many ways a tribute to its collaborative capabilities and its positioning in marketspace vis-à-vis its customers and the major systems integration companies.

By 1999, Cisco saw its market being attacked by a new form of indirect competitor – the "systems integrators" that had decided to provide outsourcing services to companies wanting a more professional approach to their complex information technology systems. Providers such as EDS, IBM, Accenture, and Cap Gemini were now positioning themselves between Cisco and its major customers. The systems integrators wielded an enormous amount of clout regarding purchase of network hardware (routers, switches, etc,) If the SI's began recommending gear from Nortel, Lucent, or any of their smaller competitors, Cisco's market share would suffer dramatically. The potential sales through this channel was worth billions.

Cisco was confronted with a harsh reality: How does one form an alliance with six System Integrator competitors without forcing some of them into the outstretched arms of Cisco's rivals?

The solution required a bold strategy needing support from Cisco's senior executive, John Chambers. Cisco forged alliances with each of the major Systems Integrators and formed a Corporate Alliances Group composed of 135 well trained alliance professionals to manage the relationships.

By carefully positioning Cisco's offerings, providing strong support to manage the relationship and giving each alliance the ability to create its own innovative offering, Cisco created a "virtual exclusivity" with each of its partners, thus avoiding the reputation as a "polygamist." This unique approach to exclusivity enabled innovative market solutions to be created, each tailored to the unique demands of the market and the individual capabilities of each of its alliance partners.

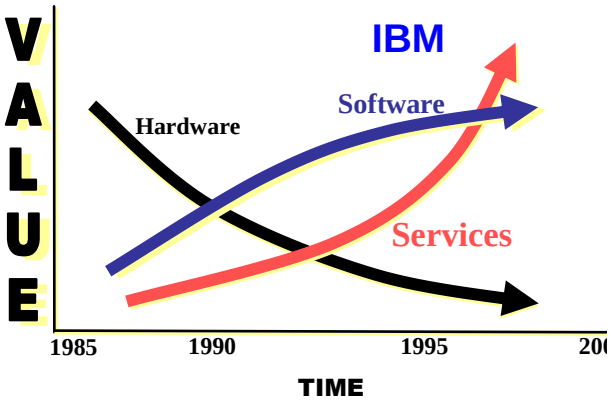
Vice President of Strategic Alliances, Steve Steinhilber ensures that the alliance strategy is well coordinated with corporate strategy, and aligned to Cisco's business sectors. Innovation is a key element to every alliance's evolution as value migrates over time, and certain products become commoditized. Cisco's focus in the value chain is geared to align carefully with its partners', and innovate by bringing an ever-evolving set of products and services to the market. Innovation is balanced more to creating new systems

solutions for the customer than cost cutting. Today, Cisco's alliances support $4 billion, or nearly 20% of Cisco's revenues.

IBM Software Solutions uses thousands of Alliances to go to Market

When Lou Gerstner assumed the reins of the failing IBM in 1993, he saw the realities starkly. Drawing a picture in front of IBM executives, (see Figure 5) he laid out the difficulties IBM would have continuing to compete if it relied just on the hardware marketplace. Hardware was fast becoming commoditized by market pressures, squeezing the profits from this sector like juice from a grape. Gerstner could carve up the company, selling off whatever divisions it could, or launch a comeback by repositioning IBM within its existing customer base as a services and software provider – one of the most challenging types of turnarounds imaginable. The strategy required numerous innovations, and alliances were destined to play an important part in the strategy.

Figure 5 Using Value Migration to Position Innovative Solutions



As a software provider, IBM envisioned it would compete with Microsoft, providing the operating systems for desktops, servers, and mainframe computers. In addition, IBM envisioned itself as the best source of individualized application software for large corporations for a myriad of vertical industry sectors, such as transportation, health care, finance, manufacturing, and the like. To serve small and medium sized business, IBM was prepared to certify a large cadre of applications providers, which took the form of smaller independent software vendors (ISVs), value added resellers (VARs), and systems integrators (SIs). These smaller companies could provide more personal, regionalized services that did not meet IBM's volume and profit hurdles.

As the future unfolded, it was evident that IBM needed to adjust its strategy. The smaller providers were growing and competing with IBM. This was a critical strategic cross-road. If IBM attempted to hold its ground in the marketplace by dumping smaller applications providers, it would force its former partners into the Microsoft or Oracle camps. By hanging on to the strategy, IBM would bang heads with their partners in each of the vertical market sectors.

The solution required a bold stroke and leap of faith. IBM decided to abandon its direct go-to-market sales force in favor of creating a powerful alliance force of applications providers. The applications providers would do the direct customized work in return for IBM providing the full solutions support, including parts of the solution that the applications service providers could not deliver, such as ancillary services, middleware, and

Figure 6:
IBM's Complete Solution Offering

foundation ware in the field. (See Figure 6) This gave IBM a tremendous advantage by supporting those aggressive entrepreneurial companies in the marketplace, while gaining their undying loyalty. It is a classic case of expanding the pie.

Alliances not only helped the "elephant to dance" (to use one of Lou Gerstner's expressions), but also created a unique engine of innovation, where the differentials in thinking between IBM and its software providers were required to create an ever-expanding array of new solutions and integration in the field.

By improving the competitive position of the applications providers, IBM made it difficult for its competitors to unseat IBM. Today IBM's software solutions provides 15% of its total revenues, but 30% of its profits, and gives entrée for IBM's Global Business Services to provide additional value to its customer base.

Seven Different Types of Innovation

Innovation is:

> *The interaction of co-creativity, knowledge, and mutual learning between two or more people working together toward a common goal of generating new sources of value, growth or wealth in an organization.*

Innovation takes a wide variety of forms (see Fig 7):

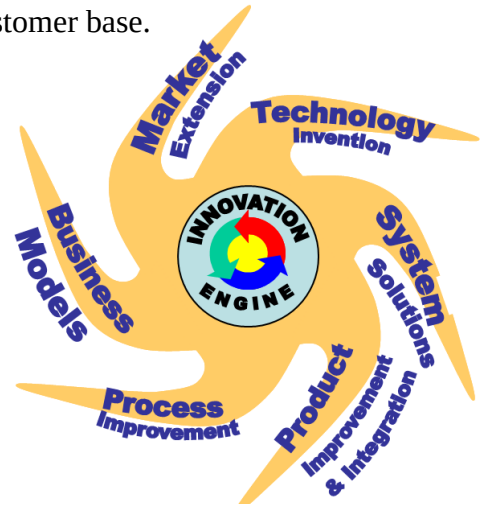


Figure 7: Seven Forms of Innovation

1. Technical Invention

- Product Creation/Development with a new Core Technology
- Next/New Generation, Breakthrough/Discontinuous Technology

2. Systems Solutions

- Rethinking & Integrating Existing Systems to Solve Complex Customer Problems
- Use Solution Alliances to Integrate Complexities
- Often Generates New Solutions to Existing Problems
- Usually Closely Linked to Customer

3. Product Improvement & Integration

- Continuous Improvements Making the Product More:
  - Integrated with other products, technologies, or systems
  - Efficient, Effective
  - Leveraging Existing Core Technology
  - Useful or User Friendly
  - Valuable to users

4. Process Improvement

- Make Processes:
  - Simpler, Faster

- More accurate, More Reliable
- Less Expensive, More Integrate

5. New Business Models

- Reconfigure the Nature of How Business is Framed to Serve the Customer:
  - Make it Easier to do Business
  - Create More Integrated Products and Services
  - Devise better ways to be profitable
  - Use Resources in a New Way

6. Market Extension & Experience

- Develop New Products, Services to:
  - Support Existing Customers/Market Bases who buy our current products
  - facilitate Product/Technological Adoption and create value from usage
  - Introduce new services & value streams
- Create Unique Customer Experience
  - Delight or Invigorates
  - Enthralls – the Unexpected

7. Socio-Organizational

- Design New Human Relationships to:
  - Increase Results (Strategic Alliances & Value Networks)
  - Reorient or Restructure Human Interaction (Facebook, Employee Ownership, Diversity of Thought)
  - Enable people to interact differently with technology

How to make Alliances into Engines of Innovation

Given the historical track record of alliance failures[8], how did these companies manage to create such powerful innovation programs?

Their approaches are remarkably similar, and they all, in some manner, shared their learnings with their alliance partners. Their example sets a standard and pathway for others to follow. Fundamentally, each used a disciplined and rigorous application of best practices to ensure the success of their alliance program. But, equally important, each clearly addressed six fundamental areas:

1. Strategic Focus
2. Leadership and Relationships
3. Legal and Contractual Issues
4. Organizational Design
5. Performance Processes
6. Econometrics

[8] According to the Association of Strategic Alliance Professions, companies that use Best Practices have a 70-80% chance of achieving alliance success, while those that do not achieve 30-35% success rates.

Let's look at each of these in some detail:

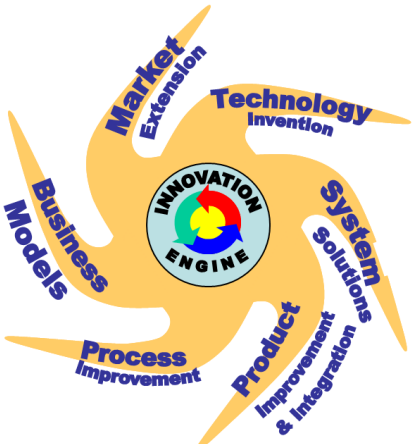
1. Strategic Focus

In each of these companies, alliances were no longer relegated to the lesser ranks of corporate strategy as a least-desirable alternative, but, instead were considered equally important as either organic growth or acquisitions. Each company hammered out clear decision criteria on when and why to use alliances, and when to choose another alternative.

Moreover, innovation also was elevated from an internal strategy to an external strategy as well. P&G's proclamation: "50% of our innovation will come from the outside" positions alliances as a vital source of competitive advantage. For each, no longer was innovation just platitude, but it had to be replaced with a guiding force of programmatic effort.

Equally important, innovation was not looked at by these companies from a narrow perspective. Innovation could take a variety of forms, including those in Fig. 8.:

Each of the companies looked carefully at its value chain for its ideal source of innovation. IBM and Cisco saw the value in their go-to-market partners. For P&G, the innovation was in their supply chain. For Eli Lilly, the innovation was in the discovery, development, and commercialization partners."



2. Leadership and Relationships

Innovation is top of mind for most senior executives. However, it is not an equally high programmatic priority. Sadly, for all too many corporations, innovation has become a platitude, not a way of life. Too common is the corporation, which, in the name of growth, makes an acquisition, and a year later finds all the innovation streams of the acquired company have dried up.

Innovation, particularly when engaging the resources of two companies in an alliance, encounters obstacles, both of which require superb leadership skills:

- All innovation is, by its very nature, disruptive, creating conflicts and turmoil as relationships, power bases, and habits are shifted from an old to a new state. "Not Invented Here" may easily come into play. People may see innovation as a threat to their jobs.
- The corporate immunal rejection

In an informal survey of over 1000 executives over the last four years, we asked the question:

What percentage of change in a company comes from crisis and what percentage from vision?

Overwhelmingly, the answer was:

- 80-90% from crisis
- 10-20% from vision

The need for visionary/transformational leadership to proactively address critical issues of innovation is clearly evident.

response can be extremely powerful when something new invades its territorial boundaries in the form of an alliance.
- Innovation is seldom embraced unless there is a crisis at hand (see box)

These are the "three dark shadows" of innovation. Without senior executive support and strong champions in the field, coupled with the ardent use of best practices in alliance formation and management, the chances of these obstacles threatening the innovation flow are extremely high.

Any innovation program must have sponsorship as a senior executive initiative. Each of the companies cited has a commitment from at least the Executive Committee or the Board of Directors. In addition, each cited company had strong champions in the field who led the alliance effort, whether it was centralized, such as in Cisco or Eli Lilly, or decentralized, such as in IBM and P&G.

Without strong priority attention and focus, these three obstacles can cast a gloomy pall over the innovation effort.

At Cisco, CEO John Chambers meets with his CEO counterparts at least semi-annually to discuss the direction of their alliances. Lilly's Office of Alliance Management has been given their broad authority by the Board of Directors. Without this high level direction, support, and vision, the three countermanding dark shadows can undermine any alliance-based innovation effort.

At P&G, one of the alliance champions, Natalie DeGuilio, was so committed to the cause of creating a win-win relationship with her alliance partner, Novozymes, in the enzyme innovation world, that Novozymes appreciatively named a enzyme after her: *Natalyze*

At the operational level, leadership is equally valuable. However, it manifests differently. For example, Lilly's alliance managers are deeply engrained in the relationship with their biotech alliance partners to ensure that the three dark forces are subdued. Managers for the alliance process, like Andy Eibling and Sherman Whitfield, engage fully, working on the two cornerstones of the alliance: strategy and relationships. They do not run the alliance with Lilly's innovation partners, they make sure the alliance is working, that trust is present, and people are co-creating together.

Gary Stach, executive director of Alliances at Lilly says: The technology may fail, but we want to be around with a strong relationship that endures so we will be first in line for the next compound our alliance partner devises.

Their role is not to create the technology, but to ensure the success of the relationship. They work on behalf of the *alliance* to insure that value is created for both the partner and Lilly. In the pharmaceutical industry, much of the new technology will fail for a wide variety of reasons having nothing to do with the people. Should the technology not pass one of the critical stages of clinical trials, it is the alliance manager's role to ensure that the trust, personal relationships, and corporate strategic alignments remain intact, so that another innovation project can arise phoenix-like. The willingness for the partner to reemerge with the next new potential block-buster compound is potentially worth billions of dollars to alliance partners.

3. Legal and Contractual

In our Best Practices study on Alliances as Engines of Innovation, the number one obstacle to innovation cited was the legal and contractual process of handling intellectual property issues that tended to limit or stifle cross-corporate cooperation and innovation.

The battles over intellectual property have deep roots in litigation, often with disastrous results. Respondents often cited interminable delays, unnecessary haggling, and win-lose negotiations that often made inter-organizational innovation fruitless and frustrating.

However, for those companies cited in this article, the impact of a fast-moving, rapidly-changing world has profoundly altered their mindset.

In a slow moving world, the old strategy was to license, protect, and defend technology. This was seemingly sound in a more predictable world where technology tended to have relatively longer life cycles. But most companies no longer live in this slower world. In an environment of short product life cycles, it is more prudent to focus on how to co-create the next generation of technology, how to produce continuous streams of multi-dimensional innovation, and how to ensure a collaborative environment that will foster new innovation. Haggling and wrangling over legal agreements proves to create an environment of distrust, which stifles creativity.

Gaining the greatest advantage in negotiations is seldom the strategy for companies truly committed to innovation. For example, P&G, after developing a film for sealing packages, approached rival Glad to form a joint venture. Glad would provide the branding, manufacturing, and distribution in return for an 80% interest. P&G was satisfied with a 20% interest.

P&G made more ROI this way than if they had tried to build plants and market the product itself.

Further, the best companies recognize that being first to market is the best assurance of having the largest market share. Speed to market is essential. Time and again, companies who fought and bickered over technology rights ended up with less in the long run. The 1980's PIMS study showed unequivocally how first to market captures the most market share. When protracted legal negotiations result in product introduction delays, thus giving competition an early market-entry advantage, both partners lose.

For P&G, the intellectual property decision has been delegated to middle management. Bounded by some general principles, middle managers have the authority to negotiate intellectual property issues with their counterparts, thus moving the issues ahead quickly to enable greater focus on the actual development of innovations.

Eric Drattell, former Cisco Legal, observes:

When negotiating a legal agreement with an alliance partner, it's most important for the business issues that propel innovation to take center stage. The legal agreement should support, not stifle, the acceleration of innovation. We want to get to market early rather than be delayed by the impossible task of creating the perfect legal agreement. In the long run, the relationship we have with our alliance partner is more important than a legal agreement that may become obsolete quickly in a rapidly shifting technological environment.

Similarly, when it comes to contracts, many of the companies have very loose contracts, knowing that the relationship is ultimately more important than the legal terms of the contract. At P&G, several of the larger contracts are guided by a set of simple operating principles to ensure a win-win arrangement. At IBM, an eighty-page contract with software providers was long-ago replaced with a simple, easy to read agreement of merely 5-6 pages. Again, managing the relationship is more critical to the ultimate success of the innovation system than the terms of the legal agreement.

These companies were not obsessed with control for control sake. The best companies are not focused simply on who owns/controls the intellectual property, but how, together, they can grow it, share it, and create more market and new IP together. They understand that it is in the relationship between people, not the legal contract that the spirit of innovation thrives. This relationship is sustained by four factors:

- Strategic Relationship Management which is practiced and rewarded
- Trust Building activities between the parties
- Clear Operating Principles for the Relationship
- Contracts which are fair, joint, futuristic, and regenerative

At P&G, suppliers are encouraged and rewarded for innovation, which has meant product and technology innovations for our suppliers, like Crest White Strips, and a myriad of others.

4. Organizational Design

Enabling powerful innovation across organizational boundaries requires a shift in the way organizational structures and reporting systems operate. Each of the companies has create its own unique way of fashioning their organizational structures to support alliances.

For Cisco and Lilly, a centralized office was put in place to manage the critically important alliance relationships. At P&G and IBM, alliance management is decentralized, handled by each of the operating units and functional specialties. P&G aligns its procurement group with R&D, which has instituted a program of Connect and Develop (see HBR March 2006).

Because it also focuses on supply chain alliances, P&G has bifurcated its supply organization into commodity suppliers where price is a critical determinant and more strategic relationships where innovation is a critical element of success. When coupled with the Connect and Development program, this creates a powerful innovation strategy.

Dr. David Burt says: The mindset and operating methods of most procurement professionals does *not* support effective alliance relationships. A new set of skills and new orientation is required including: creativity, openness, searching for synergy, co-creation, the establishment of trust, and the desire to collaborate in finding solutions. Blaming, finger-pointing, and fault- finding are counter-productive when trying to gain innovation flows from strategic alliances.

Most importantly, the alliance approach must relate strongly to the needs of each of the business units it supports. Without a strong business value proposition, the innovation stream is irrelevant.

As relationships between buyers and sellers and service providers change from their former transaction-basis to a more strategic relationship-oriented alliance, the concept of value chain also becomes transformed into a value network. As these boundaries become more permeable, more cross-functional teams are emerging to integrate ideas and operations. At Lilly, the alliance managers are evaluated on their performance by feedback from both the internal organization and the partner.

Managing alliances also requires special skills. Each company has adopted an adherence to best practices in alliance formation and management and then put their managers through intensive training programs to ensure the highest chances for winning.

5. Performance Processes

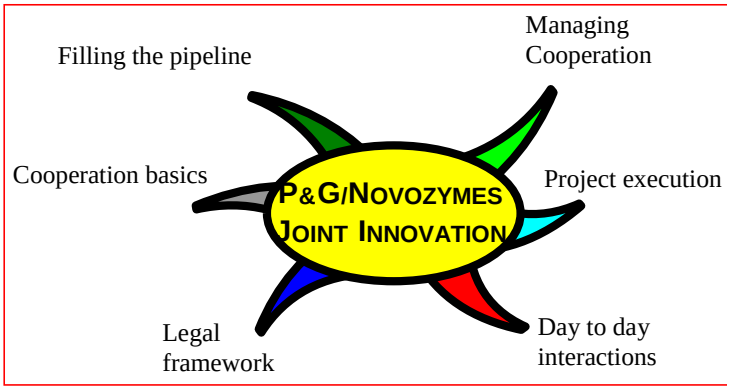
Gaining performance from these innovation systems requires specialized processes that can be coordinated across organizational boundaries. While each company has its own specialized set of processes, there are considerable elements in common.

While each company uses a somewhat common set of alliance best practices, on top of this there is a set of performance processes designed specifically for the type of alliance that is being engaged in. For the P&G pharmaceuticals business, performance processes are a disciplined art. Dave McCamey, Associate Director, Global Pharmaceuticals Alliance Management, says:

> *"We focus on how to create performance excellence between the two companies. We have worked hard to build an organization that can show up as a motivated and effective partner. We have adopted the mindset that if the alliance succeeds, P&G will succeed."*

In P&G's relationship with Novozymes, there is a careful process framework that helps determine how various synergistic processes are applied. (See Figure 9)

Figure 9: Performance Process Framework for P&G/Novozymes Supply Innovation Relationship



Other performance processes, together with metrics, are used regularly to maintain innovative relationships and performance, including speed to market, testing and evaluation, elimination of non-value added work, trust building, relationship health diagnostics, and management reviews.

Lilly's relationship health diagnostic is very effective in spotting problems and difficulties before they turn out to be intractable problems. Lilly also trains its managers on how to handle the difficulties of organizational culture.

P&G has a program for Supplier Development to enable common tracking of strategic value migration.

6. Econometrics

Measuring the impact of innovation is highly desirable in any innovation program. Without sufficient metrics, any innovation will become invisible. But more importantly, without metrics, it's impossible to align the rewards systems so that people's behavior matches the desired corporate innovation outcomes. Ultimately the innovation from alliances should result in top and bottom line advances.

However, financial indices are a lagging indicator of success. As such, early or leading indicators of success are much more important in managing the improvement process. These metrics typically gauged as:

- Product Improvements
- Service Improvements
- Technology Improvements
- Forecasting Improvements
- Productivity Improvements
- Quality Improvements
- Speed/Cycle Time Improvements
- New Processes
- New Products or Market Extensions
- New Services Delivery Capacity
- Integration of Solutions & Systems
- New Core Technologies
- New Delivery Mechanisms
- Technology Breakthroughs
- Faster Adaptation

Without clear metrics, few people in engaged in the innovation process can ever see or manage the end result.

The Bottom Line

For P&G, CEO A.G. Lafley attributes the continuous improvement in its stock price to innovation, despite selling to customers such as grocery chains and Wal-Mart, were there is relentless price pressure. For IBM, it regained its position as market leader. For Cisco, innovation is the counterbalance to the unremitting cost pressures of the hardware industry. Eli Lilly has supplemented its internal innovation pipeline with partnered technologies. OnStar is a stellar example of how General Motors could design a bold new future.

For every company seeking to compete in the cost-cutting global market-place, innovation is the best antidote, and alliances are one of the best, least risky, least expensive, and often fastest to market resources. Innovation is not just a nice addition to an alliance, it is the long-term life-blood of alliance regeneration.

Applications

Collaborative Innovation Architecture ™ is specifically designed for situations where there are differential/trans-organizational boundaries, making it particularly applicable for:

- Alliances & Joint Ventures
- Supply/Value Chains/Networks
- Functional & Cross-Functional Teams
- Company to Company
- Business Unit to Business Unit
- Mergers and Acquisitions

Steps to Get Started

Our study also found that, invariably, obtaining lift-off for a collaborative innovation program required highly energized leadership, namely in the form of an "innovation champion.[9]" The reason this championing is essential is that:

1. All Innovation Creates Change
2. Change is Disruptive
3. Disruptions Cause Conflict
4. Conflict Triggers Control Reactions

Therefore, champions become essential to implement innovation to overcome the resistance to change that will be inevitable. The typical champion's is a passionate crusader who has the ability to create trust, to be committed to a win-win approach with all parties, and will stand for the greater good of the organization.

Innovation must be a senior management's responsibility. Getting started means a company should engage by focusing on several key step:

1. *Start Thinking about Innovation Strategically*
2. *Identify Business Units Where Innovation will have an impact*
    1. **Technical Invention**
    2. **Product Improvement**
    3. **System Solutions**
    4. **Process Innovation & Integration**
    5. **Market Extension**
    6. **New Business Models**
    7. **Socio-Organizational**
3. *Appoint/Anoint Innovation Champions*
4. *Design Innovation Program – Engage People who will need to be part of it*
5. *Address Six Leverage Points – Apply Best Practices*
    1. **Strategy**
    2. **Leadership & Relationships**
    3. **Legal & Contractual**
    4. **Organization Design**
    5. **Performance Processes**
    6. **Econometrics**
6. *Launch Innovation Pilot Projects*
7. *Measure Results, Make Adjustments, Expand & Proliferate*

[9] See "How to Foster Champions" by Robert Porter Lynch in Drucker's book: Leader for the Future – Leading Beyond the Walls

Innovation tends to follow a serendipitous path:

Managers can expect the co-creative spirit of the participants in collaborative innovation will *generate new, but unpredictable, ideas, solutions, and opportunities*.

As a company's internal business units, functional operations, and alliances jointly focus their efforts on innovation and systematically *create alliance-based relationships* both internally and across its value chain, the total *organizational network's thinking, awareness, and insights begin to shift*:

- People become invigorated, generating new, as yet unseen, opportunities,
- A deeper, more common understanding of the linkage between value and competitive advantage evolves across the value chain,
- People and their organizations that had been stereo-typed into little boxes begin to open their horizons, developing contributions that were never before imagined,
- Customer and market opportunities are discovered that would otherwise have been overlooked, while
- A new level of collaborative innovation spawns greater opportunities.

Secondary impacts are also likely to take the form of:

- Higher levels of innovation internally,
- Better internal/cross-functional collaboration,
- Better utilization of staff, and
- Greater alignment of internal and external stakeholders.
- The Law of Unintended Consequences tends to break favorably – new and pleasantly unexpected forces come to your aid.

We have uncovered over 400 Best Practices that support the *Collaborative Innovation Architecture.*™ These are available in a variety of learning and application formats.

Conclusion

As companies find their real competitive advantage lies in the innovation potential of their of their entire value chain, alliances will continue to emerge as Engines of Innovation.

Collaborative Innovation is one of the most potent factors in creating real competitive advantage in today's corporation. It will be the foundation for solving the great problems companies face in today's hyper-competitive business environment.