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ANTICIPATING FUTURES

Leveraging Organizational IQ to Improve Management Processes

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Insight

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SRI CONSULTING BUSINESS INTELLIGENCE
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LEVERAGING ORGANIZATIONAL IQ TO IMPROVE MANAGEMENT PROCESSES

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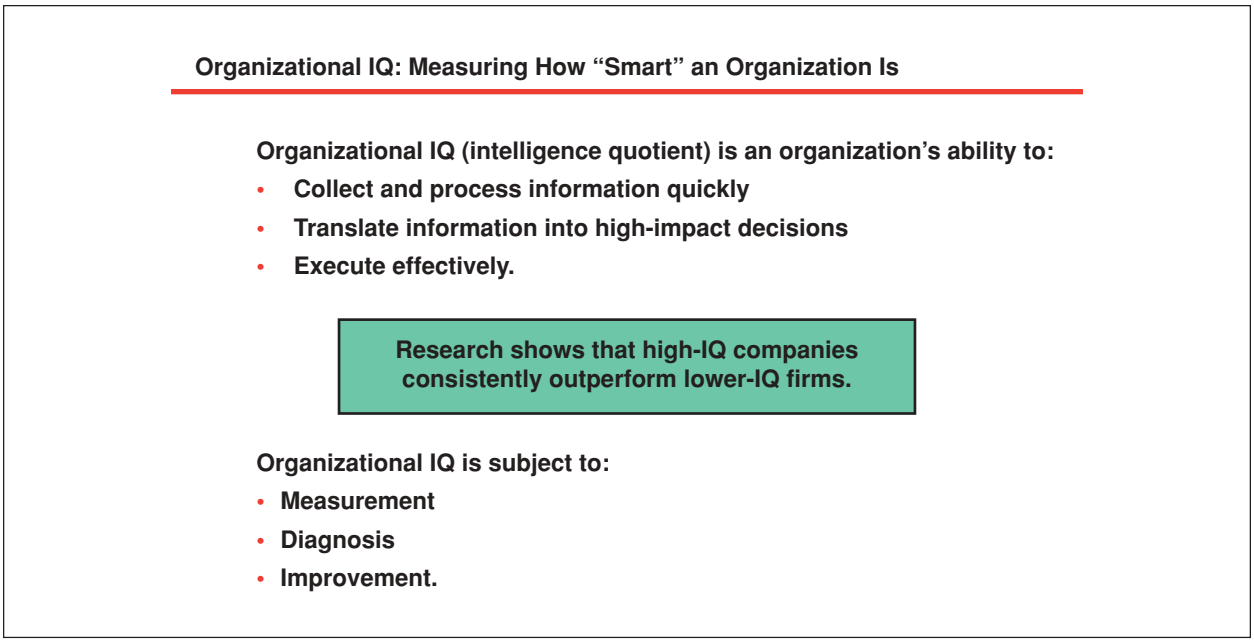


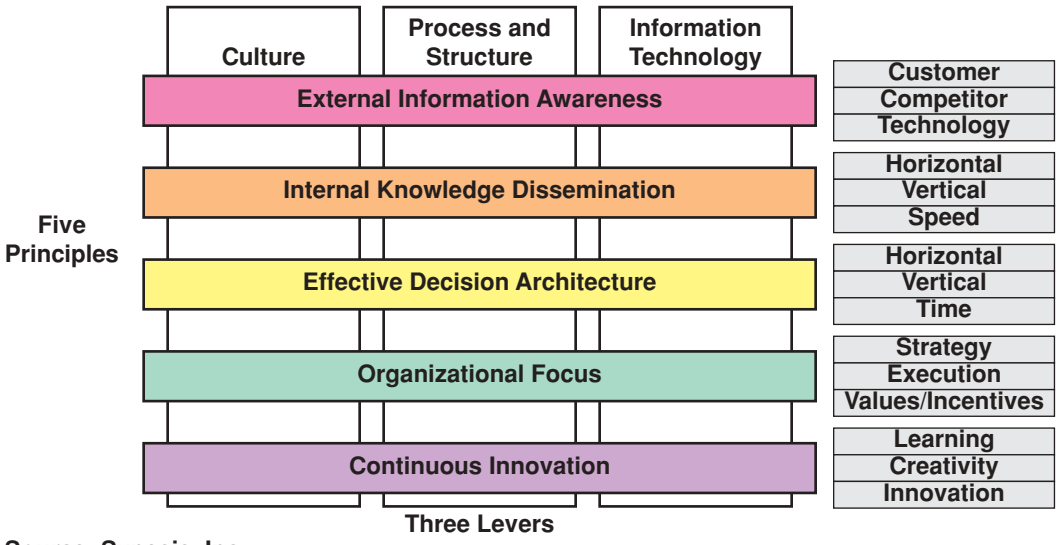
Building a competitive company in today's world demands much more than hiring top talent: Recent research shows that management choices of systems, structures, and culture make or break a firm's success. Decisions about these management levers determine organizations' muscle in gathering and processing information and making and executing decisions.

The following pages describe the implications of research by the Stanford Business School into the fundamental drivers of success in high-technology firms. This research shows a high correlation between Organizational IQ and subsequent business success. The findings apply to most industries, and managers have applied them in sectors ranging from banking and health care to automobiles and computing.

An understanding of Organizational IQ provides a mental map of good management practices for knowledge-age companies. In addition, adherence to the concepts is measurable, simplifying the diagnosis of the areas that most need change and allowing companies to monitor the impact of their change initiatives. In this important reliance on measurement, Organizational IQ extends the philosophy of the Six Sigma movement to more management roles.

The term *Organizational IQ* has close associations to the concept of human IQ, but it has one noteworthy difference: Organizational IQ has proved to be malleable with focused effort. Improvements can even be quick if companies properly diagnose the key change levers.

The Principles and Levers of Organizational IQ



Source: Synesis, Inc.

Companies with high Organizational IQs excel by effectively using the three levers of culture, process and structure and information-technology (IT) systems to support five main principles:

- *External information awareness*. Top businesses track competitors and technologies, and they maintain customer contact at many levels of the organization. Less successful firms rely on intermediaries such as brokers to track changing customer needs, or, worse, they rely mostly on internally generated perspectives.
- *Internal knowledge dissemination*. Relevant information needs to flow quickly to decision makers at all levels and in all functions for an organization to respond well to market developments. Successful companies make good use of horizontal and vertical information channels and are able to tap into these channels quickly.
- *Effective decision architecture*. The people making the decisions must be those with the best information and perspectives. Traditional organizations often assign decision making too high in the organization—far from customer interactions or other areas that could provide detailed insights on technology, product, or service components.
- *Organizational focus*. Both the organization as a whole and every business unit must concentrate on a few high-priority goals and activities and must align incentives to these goals.
- *Continuous innovation.* The best-performing organizations corner sources of improvement ideas, evaluate them quickly, and then act decisively. Poorly scoring organizations rarely collaborate with customers or partners to develop better solutions, often instill in their employees a fear of making suggestions, and tend to let improvement ideas ripen with age.

Stanford/McKinsey Research: Drivers of Organizational Effectiveness

Data Collection

- **Stanford University, Augsburg University, and McKinsey & Company collaborated on the research.**
- **The project team surveyed 164 business units of high-tech companies in 17 countries in Asia, North America, and Europe.**
- **Survey questions focused on operational practices in product development, manufacturing, sales, marketing, and service.**
- **The project team conducted 700 interviews with 2000 managers.**

Results of Stanford Research

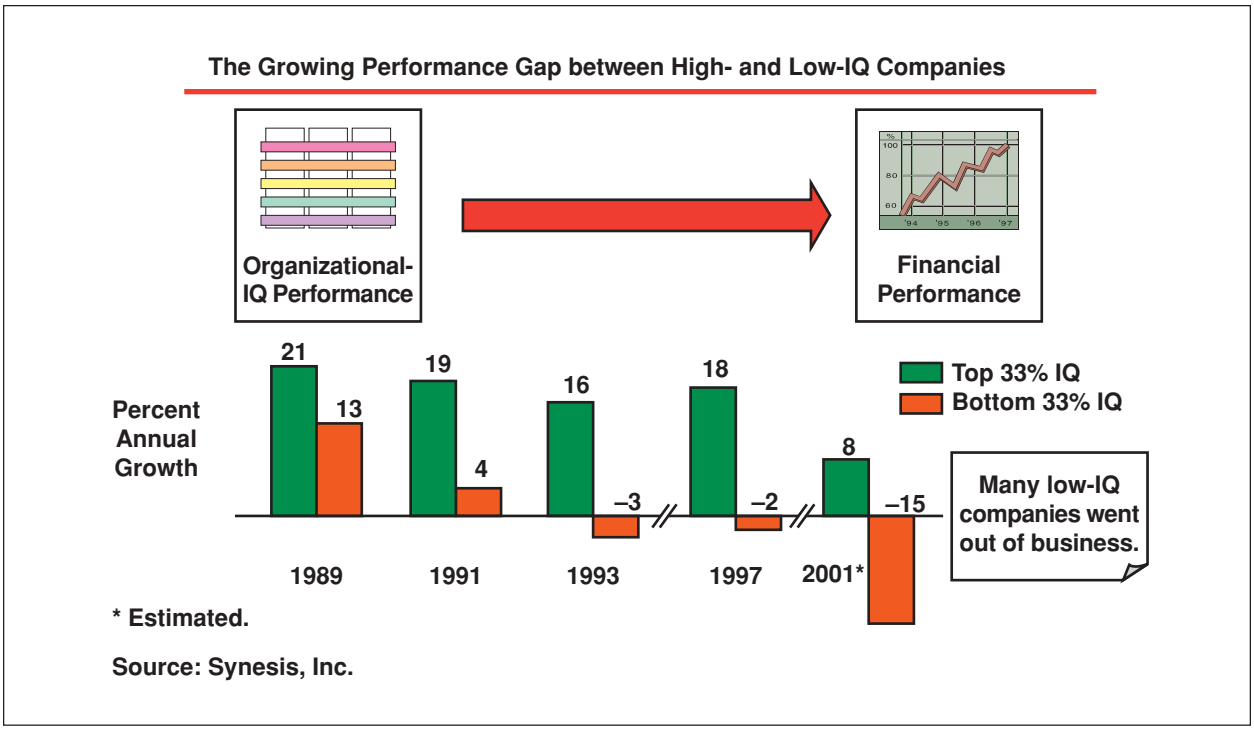
- **A company's profitability and growth depend heavily on its organizational IQ.**
- **The impact of a company's IQ increases as the company grows.**
- **The more dynamic the business environment of a company, the greater the importance of a high IQ.**

Source: *Survival of the Smartest*

Extensive research has validated the importance of Organizational-IQ principles for success in high-technology companies. Background data for this research, which took place in the 1990s, came from interviews with 164 high-tech business units across three continents. The project team interviewed some 2000 managers on a wide range of issues, such as management styles and operating policies. Two universities, Stanford and Augsburg, carried out the research in collaboration with McKinsey & Co.

Separate research teams tested alternative hypotheses about the key success differentiators in high-tech industries. The Stanford research team, under the leadership of Johannes Ziegler and Haim Mendelson, formulated and tested the Organizational-IQ hypothesis. Other teams tested operationally or strategically focused hypotheses, such as the importance of running modern logistics, being first to market, consistently producing the highest-quality products, or being quick to restructure.

Of the alternative hypotheses, only Stanford's Organizational IQ proved to be statistically valid. The research showed that the larger the firm and the more dynamic the industry, the greater the impact of Organizational IQ.



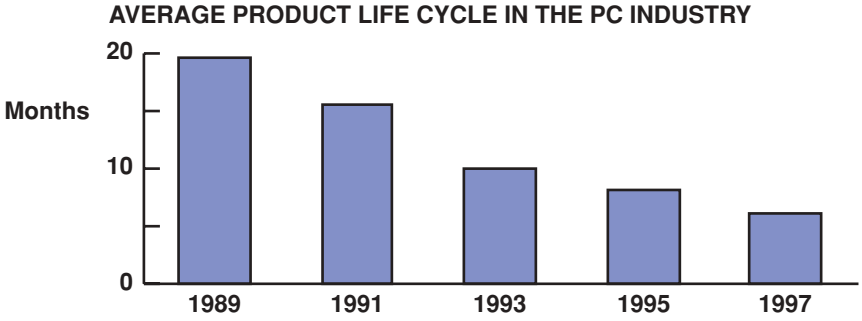
The figure above illustrates the close link between high Organizational IQ and business success, represented here by growth. Using metrics that the project team gathered in interviews, the researchers computed the Organizational IQs of business units and then ranked them. They subsequently compared firms on a number of measures of business success, including revenue growth rates and relative profitability among firms in the same industry.

The data show a large and growing gap between the top and bottom thirds of firms, ranked by their Organizational IQs, throughout the 12-year period. Many firms on the low end had gone out of business or become acquisition targets by the end of the period, whereas those in the top third remained in the driver's seat. Similar results emerged for profitability.

A regression analysis of the data shows a positive relationship between Organizational IQ and business success that, according to 1993 data, is statistically significant at the 1% level and displays an R^2 of 0.67. These results show an unusually strong correlation for such business and economic research.

The Increasing Relevance of Organizational IQ across Industries

- **Companies need an ever-expanding knowledge base to compete.**
- **Product life cycles are dropping quickly in most industries.**
- **To respond, organizations must be "smart," promoting appropriate information gathering, decisions, and implementation.**

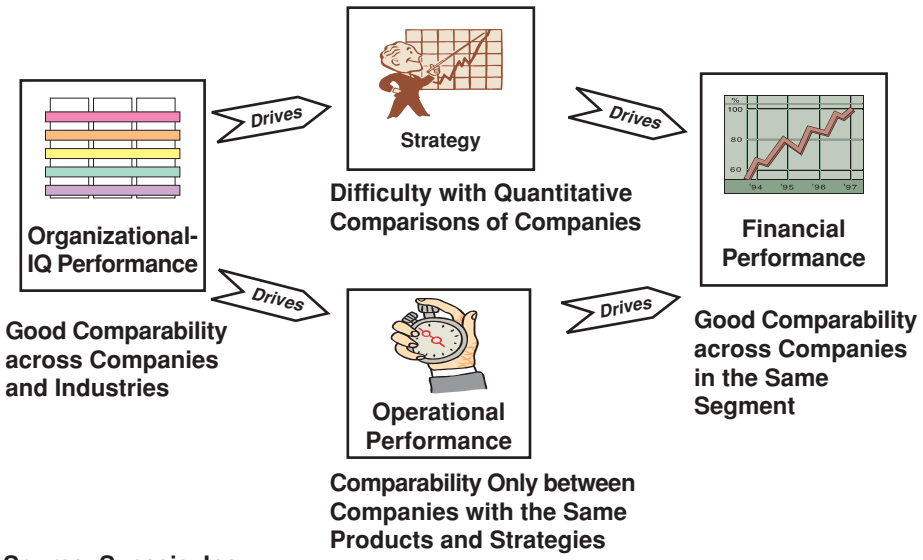


Source: Stanford Computer Industry Project

The impact of Organizational IQ on business success is particularly strong in industries with rapid change, which the Stanford study represented by average product life cycles in its statistical tests. Recent years, however, have seen accelerating change in most industries, including in once-staid industries such as health services, banking, and electricity generation. Thus, Organizational-IQ concepts and findings have relevance for a growing number of firms in many sectors.

The figure above illustrates the declining product life cycles in the personal-computer industry. Life cycles for this market declined almost 70% between 1989 and 1997. Though this rapid decline is unusually dramatic, most industries have seen their planning horizons shrink significantly. Health insurers, for example, now need to launch major new product lines every two or three years, and bankers must frequently revise both their operating approaches and their means of interacting with their customers.

Organizational IQ Can Compare across Companies and Industries



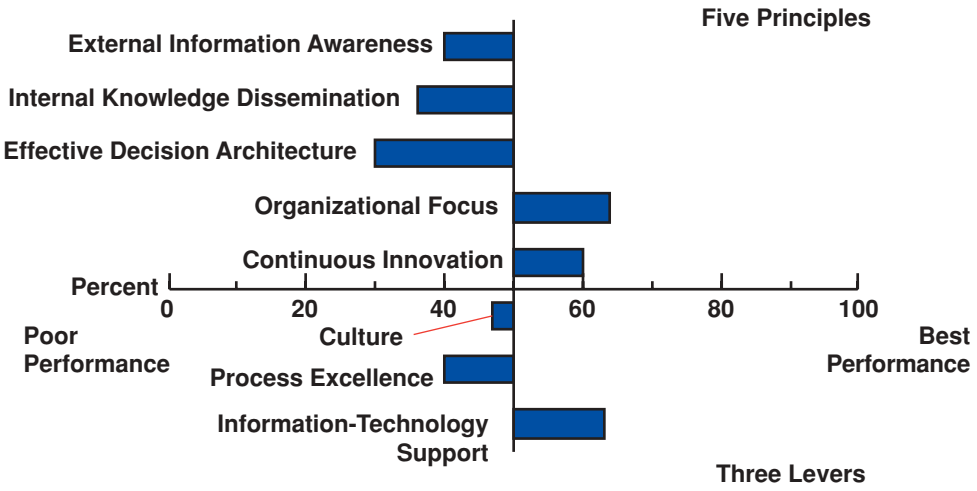
Source: Synesis, Inc.

One reason that Organizational-IQ concepts are useful for guiding management decisions is that they readily link to metrics that correlate with business success. In turn, this capability allows benchmarking of one organization against another.

Many executives react intuitively to comparisons of their firms' standing with others in different sectors; however, Organizational IQ deals with issues that are generic enough to be comparable. Companies in every industry want to excel at vacuuming up information from the external environment, disseminating it to people who need to know, structuring decisions, focusing strategically, and capturing improvement opportunities. Competitive pressures may make the stakes higher in one industry than in another, but the direction of good practice is, for the most part, the same.

The concept of Organizational IQ circumvents many of the difficulties of benchmarking specific strategies or operational policies across firms. Such comparisons are often difficult even within the same industry, let alone across sectors. Though financial results are also comparable across industries, Organizational IQ has the additional benefit of providing a leading indicator of success.

Profile of a Company's Organizational IQ



Source: Synesis, Inc.

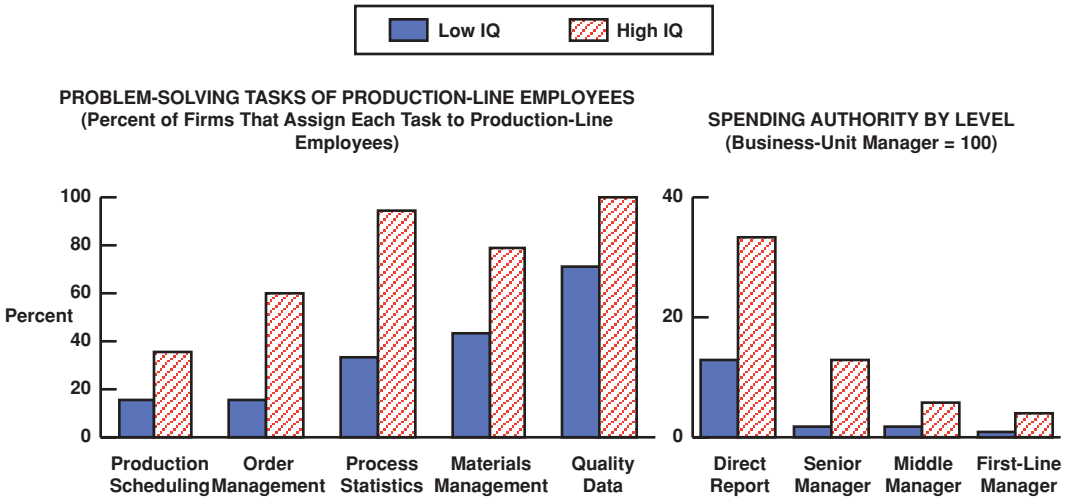
Measuring the Organizational IQ of a company calls for surveying participants in the process that the firm has targeted for improvement. Participants include internal staff members at most levels of the organization, suppliers and channel partners, and customers and potential customers.

Participants answer batteries of questions that are relevant to the five principles and three levers that constitute Organizational IQ and that focus on the issue facing the firm. Analysts break down each principle into multiple subprinciples (see the examples in the figure on page 2).

The figure above summarizes the results of one survey and represents the Organizational-IQ profile of a company or a targeted process within one company. (This profile is from the case study of Company B that appears later in this study.) In this example, the company fares below average on decision-making architecture, knowledge dissemination, and external knowledge awareness and scores above average in the two other principles. Its culture score is close to average, whereas its processes are less than excellent, and its IT systems are above average.

Many questions form the basis for calculating the summary statistics above. The next two pages give examples of the types of questions in the original Stanford study.

Sample Metrics for "Decisions Near Knowledge"

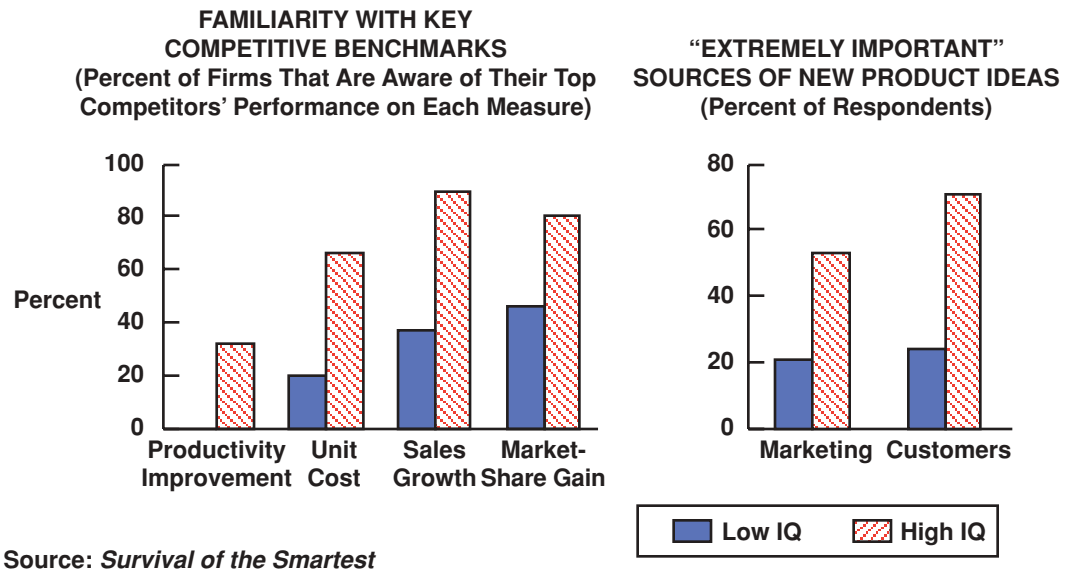


Source: ***Survival of the Smartest***

The figures above select a few examples from the hundreds of potential survey data points that analysts can use to develop a company's Organizational-IQ profile. The data points depend on the problem under study. These examples focus on the objective of placing decisions near knowledge, a characteristic of effective decision-making architecture.

To place decisions near knowledge, companies need to give authority to the person with the best balance of detailed insights into the factors affecting a decision and an overview of how decisions might affect tangential areas or concerns. As the figures illustrate, the practices of low- and high-IQ companies differ sharply. In low-IQ companies, operating and spending decisions tend to take place at a higher level than in high-IQ companies. Low-IQ companies tend to push decision making too high in the organization, though decisions occasionally occur too low in the organization too, at levels where employees have an insufficient understanding of their decisions' impacts on other operations.

Sample Metrics for "External Awareness"



Source: ***Survival of the Smartest***

Though shortcomings in structuring decision making likely top the list of problems for many companies, a close second is an inadequate external focus on customers, competitors, and relevant technologies. The figures above show six data points that can highlight differences between high- and low-IQ companies. These points are but a small subset of the data elements that represent the Organizational IQ of a company.

Clearly, higher-IQ companies emphasize external contacts more than their lower-scoring peers, a habit that sharpens their capacity to hone product appeal or respond quickly to shifting market needs. Frequently, poor decision-making structures impede external information awareness, particularly in large companies. As Frost & Sullivan vice president Dorman Followwill says in "How to Build Organizational IQ" (by Gregory Slayton and Johannes Ziegler), "A bad decision architecture locks your senior management team in the office. A good decision architecture frees up senior managers to visit clients and drive strategic initiatives."

Tangible Results of Organizational-IQ Work

	Companies have:
• New-Product Development	Reduced development time by 35% and increased market success through better decision architecture
• Customer Service	Reduced service cost 50% and improved product through improved knowledge dissemination
• Manufacturing/ Supply-Chain Management	Reduced inventory by transferring strong supply-chain–management practices from Asia to the United States
• Strategic Alliance and Partnership Management	Beat competition by improving partnership management through more effective decision architecture
• Marketing and Sales	Increased sales through improved knowledge dissemination with channel partners.

Source: Synesis, Inc.

Companies have produced impressive results by implementing Organizational-IQ projects, with the focus of their initiatives differing across the full range of the value chain, from new-product development to marketing and sales. For example, recently, Frost & Sullivan, a health-care market-research and consulting firm, was hemorrhaging cash. Diagnosis of the problem pointed to inadequate knowledge of customer needs, which prevented Frost & Sullivan from setting priorities effectively for product development. In response to this insight, staff members began to have frequent face-to-face meetings with leading customers. The information they gained fed into and altered product decisions, and less than a year later, the unit was highly profitable.

In another example, Hewlett-Packard found a weakness in its strategic focus in the late 1990s. Hewlett-Packard's laptop division started a dramatic turnaround by first cutting projects and then cutting even more to sharpen its focus. According to Richard Archuleta, the executive in charge, "Cutting deeper than we initially thought possible allowed the organization to execute dramatically better" see "How to Build Organizational IQ" in *Harvard Management Update,* August 2002.

One Use: Ensuring That a Strategy Gains Traction

Strategy-execution concerns that Organizational-IQ projects address:

- **Corporate decision making**
  - **What decisions should take place at headquarters, and what decisions should reside with individual business units?**
  - **Which business unit should take ownership of global solutions and global account management?**
  - **Who has the final say in allocating resources across the corporation?**
  - **Who has the final say in a matrix organization?**

Organizational-IQ projects lead companies to benchmark the effectiveness of a client's decision architecture against other leading corporations quantitatively and to design effective decision-making processes.

- **Alignment of strategy across business units and with external partners**
- **Promotion of a customer orientation throughout the value chain.**

One category of projects aims to prod an organization along a major strategic initiative. Organizational-IQ projects can spot barriers to implementation and flaws in the design of a strategy that impede a firm's ability to achieve its objectives.

In one example, a CEO wanted to reduce his company's dependence on third-party sales channels by pushing a direct-sales initiative. He established the Supply Chain Development Organization (SCDO) to coordinate supply-chain activities across product areas, regional organizations, and suppliers. A small core team dedicated its activities to SCDO; however, the unit mostly relied on dotted-line members in the product-development and regional supply-chain organizations as well as the regional supply-chain–management and marketing organizations.

The CEO wanted to know whether the strategy was gaining traction and whether the SCDO approach was working. After profiling the organization's approach to direct-sales issues, the Organizational-IQ project team concluded that the strategy was not on a promising track and that the SCDO approach created more problems than it solved. The unit lacked understanding of business units' problems and failed to generate support within these units. Though the SCDO was eager to make changes, it lacked the requisite decision-making authority. Given the findings, the company reorganized the initiative.

Frequently, a firm initiates an Organizational-IQ project to improve its capabilities in a targeted arena, such as partner collaboration, product development, or marketing. The executive initiating the project may suspect that opportunities exist to improve performance and believe that he or she has a strong intuitive understanding of causes. However, Organizational-IQ diagnostics generally bring surprises. This gap between intuition and reality mirrors a key insight that executives learn when employing Six Sigma techniques: Intuition is inferior to systematic measurement and in-depth analyses in guiding change.

Measurement brings a second benefit as well: a persuasive means to communicate the need for change to resistant staff. Benchmarks indicating below-par performance can powerfully counter prevailing internal wisdom that all is well. The case study of "Company E" in the following pages describes a process-targeted project and highlights the steps in an Organizational-IQ project.

Case Study: The Need to Improve Decision Making to Speed Time to Market

Project History

- **Company B was a leader in its market segment, but it was late in bringing next-generation products and services to market.**
- **The company had brilliant scientists, engineers, and marketing experts who could solve the most difficult problems, but management took a long time to decide what direction to pursue.**
- **The project sought to improve decision-making processes and beat the competition to market.**

Project Results

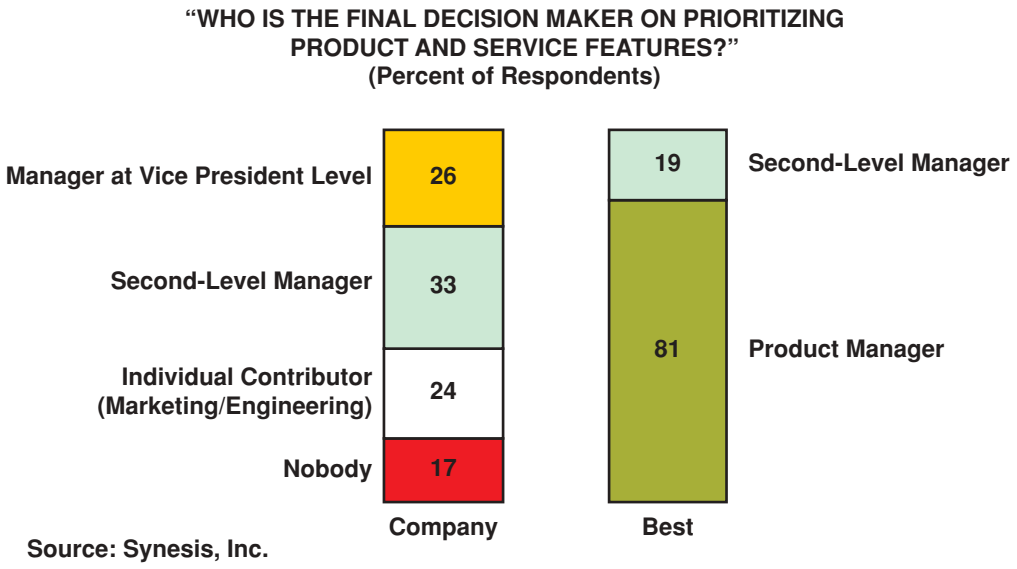
- **Time to market shrank 35%.**
- **Gross margins grew to more than 60%.**
- **Global market share increased 5%.**
- **The company expanded successfully into a new, fast-growing market segment.**

Source: Synesis, Inc.

Company B's executives foresaw a threat to their dominant market position by more nimble competitors. Despite hiring the best and the brightest, the company always seemed to be behind the curve in bringing new products into the marketplace. The leadership team therefore launched an initiative to hone its Organizational IQ, specifically in its product-development function. Synesis (www.synesis.com), a consulting firm in Mountain View, California, guided the process.

Given the diagnoses, the company made a few targeted changes to management procedures, with impressive results. New products' average time to market declined by 35%, leading to substantially higher gross margins and growth in market share. The new management style had the unexpected spin-off effect of freeing up time for upper-level managers, which in turn allowed them to initiate long-postponed ventures targeting new market segments. The following pages show how Company B achieved these results.

Sample Survey Results: Decision Making

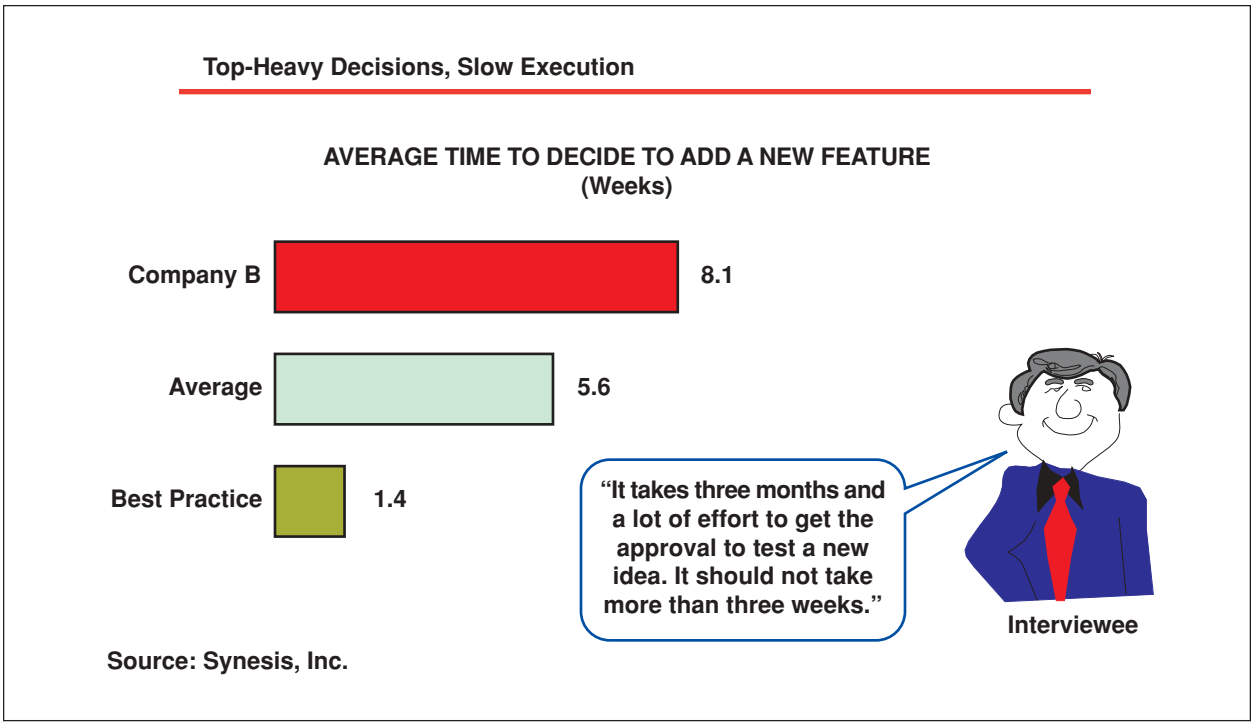


Source: Synesis, Inc.

Early in the Organizational-IQ project at Company B, the project team surveyed participants at many levels of the product-development process. Several of the questions focused on the level and process of decision making, and the team could compare the responses with best and average practices in other companies.

The question "Who is the final decision maker on prioritizing product and service features?" produced telltale results, indicating both confusion and excessive involvement of upper-level managers in minor decisions. Respondents gave varied answers, but a significant number said that no decision maker had final authority. Furthermore, Company B's practice frequently left the final decision to the vice president, though he devoted only a small amount of his time to a particular product.

The best-practice column in the figure shows responses that are close to the ideal, in that one person with comprehensive knowledge of all the issues affecting a product has final authority. Most respondents in these better-performing firms state that the product manager has decision rights.

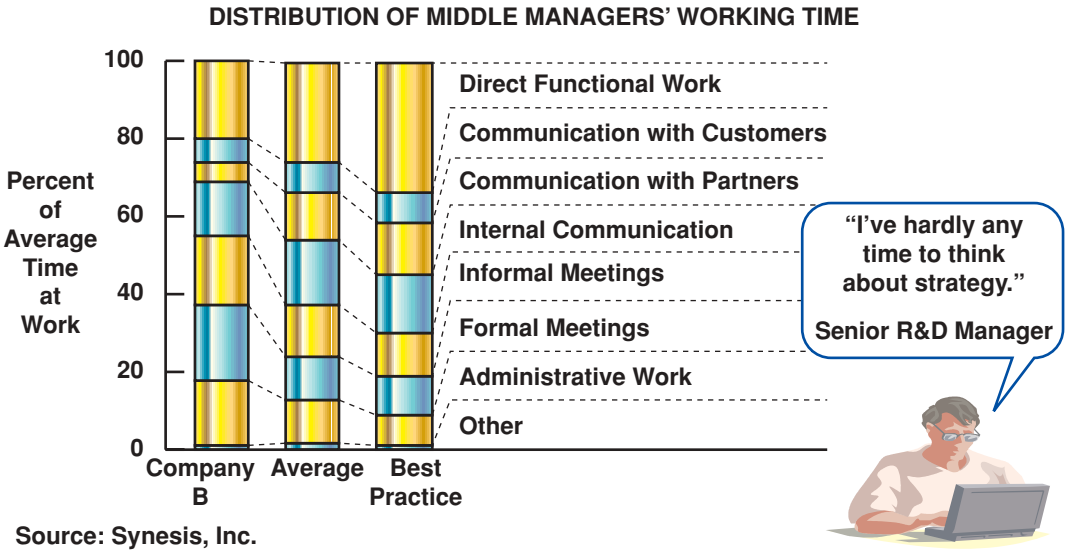


Company B's poorly delineated and frequently top-heavy decision making about products impeded the company's ability to respond quickly to market development. As the figure shows, Company B respondents reported decision processing that was 50% slower than that of the average company in the Synesis database and that was almost six times slower than the process at best-practice firms.

Interviews with Company B staff members revealed an involved process in which lower-level committees presented proposals to upper-level managers, first for comment and later for approval. Obtaining calendar time from these managers was difficult because the top-heavy processes loaded them down.

Perhaps more serious than the time costs was the degradation of decision-making quality. However smart the upper-level brass were, these decision makers didn't have the focus to digest and weigh properly all the relevant issues. The person or people who knew the most about a product were subject to veto by managers with more superficial or less current knowledge.

Little Time for Management



Source: Synesis, Inc.

Top-heavy and time-consuming decision making at Company B left upper-level managers little time to focus on their core responsibilities. As the figure shows, upper-level managers spent far more time in internal meetings than did their peers in average and best-practice firms. As a result, they also spent less time with customers and partners and had less time to focus on their day-to-day tasks.

One outcome of this Organizational-IQ project was the launch of a new strategic initiative at Company B. This indirect gain occurred after the company restructured decision making and freed up top executives' calendars. The following pages describe changes in Company B's decision architecture that, together with steps in complementary areas, stemmed from the Organizational-IQ project.

Actions to Improve the Decision Architecture

- Open communication about deficits in management processes and their impact on the competitiveness of Company B
- Streamlining of decision-making processes in line with the new decision architecture
- Fewer internal meetings and new discipline in meeting management
- Alignment of goals, performance-review criteria, and incentives with the new decision architecture

The company took additional measures in:

- External information awareness
- Internal knowledge dissemination
- Organizational focus.

Source: Synesis, Inc.

The New Decision-Making Architecture in Product Generation

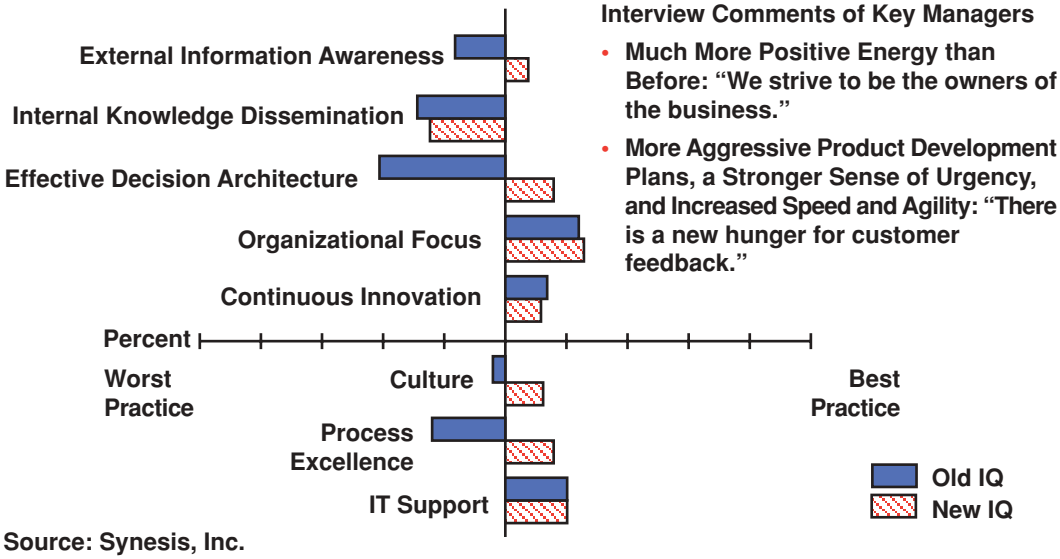
- Provides Vision, Values, and Norms
- Develops Strategy and Long-Term Objectives
- Determines Businesswide Processes
- Decides on New Business Investment
- Supports Sales at Critical Accounts
- Manages Key Partnerships on a Strategic Level
- Engages in Coaching and People Development

- Decides on a Roadmap for Product and Services
- Manages Checkpoints
- Manages External Partnerships on an Operational Level

- Decides on Trade-Offs between Customer Requests, Schedule, Quality, and Resource Allocations on a Day-to-Day Basis

- Make Decisions in Their Fields of Expertise

Source: Synesis, Inc.



Quantified methodologies such as Organizational IQ enable companies to monitor their progress toward organizational change. Monitoring keeps managers' focus on the goals for change, and it allows timely revision of plans.

Company B took a reading of its progress a half-year after it adopted the new decision architecture and other change initiatives. Progress was readily apparent. The company transformed below-par performance in external information awareness and effective decision architecture into above-average strengths, and its ratings in culture and process excellence also moved to above average. Interviews confirmed the quantitative findings, with managers expressing greater support for goals and greater customer focus.

Within 18 months, the company saw financial and competitive payoffs:

- Time to market shrank 35%.
- Gross margins grew to more than 60%.
- Global market share increased 5%.
- The company successfully expanded into a new, fast-growing market segment.

Benefits of the Organizational-IQ Approach

- **Gives quantitative and objective metrics for intangible management-quality issues**
- **Offers leading indicators of performance**
- **Focuses on the root causes of performance issues rather than the symptoms**
- **Provides a framework and common vocabulary for change management at the level of the fundamental driver**
- **Benchmarks results against global, industry-leading companies**
- **Allows quantitative tracking of improvements**

The case study of Company B illustrates the Organizational-IQ approach and highlights its advantages. The process starts with and allows later tracking by quantitative and objective analyses. These analyses have a solid foundation in research on management characteristics that separate better-performing from poorly performing companies within high-tech—or more broadly, knowledge-intensive and dynamic—industries.

Quantitative metrics allow management to see leading indicators of future performance, eliminating the need to wait until the organization's performance weakens to see problems and preventing the high costs of inaction. Further, the metrics dive into complex, interrelated issues to highlight underlying causes, thereby allowing organizations to pinpoint the areas that need change. Numbers, particularly in combination with benchmarks from other companies, also help sell the need for change to key players. Finally, quantitative monitoring allows change goals to retain priority in managers' agendas, because managers know that their performance evaluations will measure their success in reaching these goals.

Organizational IQ fits alongside a number of quantitative business-process–improvement methodologies, such as Six Sigma. It complements most of these methodologies by tackling vital but intangible management processes.

For further information about Organizational IQ, see:

- www.synesis.com.
- Mendelson, Haim, and Johannes Ziegler, *Survival of the Smartest*: *Managing information for rapid action and world class performance*. John Wiley & Sons, Inc., New York, NY, 1999.
- Mendelson, Haim, and Ravi Pillai, "Industry Clockspeed: Measurement and Operational Implications." *Manufacturing and Service Operations Management,* Vol. 1, No. 1, 1999.
- Mendelson, Haim, and Ravi Pillai, "Clockspeed and Informational Response: Evidence from the Information Technology Industry." *Information Systems Research,* Vol. 9, No. 4, December 1998.

- Mendelson, Haim, and Ravi Pillai, "Information Age Organizations, Dynamics and Performance." *Journal of Economic Behavior and Organization,* Vol. 38, 1999.
- Mendelson, Haim, "Organizational Architecture and Success in the Information Technology Industry." *Management Science,* Vol. 46, No. 4, April 2000.
- Slayton, Gregory, and Johannes Ziegler, "How to Build Organizational IQ," *Harvard Management Update,* August 2002.

Two books are available in German, and three are available in Japanese:

- *Organisationsintelligenz* is the German translation of the business bestseller *Survival of the Smartest* (Gabler, 2001; ISDN 3-409-11756-3).
- A Japanese translation of *Survival of the Smartest* is available (Diamond, 2000; ISDN 4-478-37291-8).
- In Japanese, *Organizational IQ,* written for practitioners, shows the relevance of Organizational IQ. It demonstrates how Organizational IQ can be useful to make any organization effective and efficient. The highlight of the book are the results of a large-scale Organizational IQ research project that included 17 Japanese high-tech companies and was conducted for the Ministry of Economy, Trade and Industry. Those results very clearly show weaknesses of Japanese companies in the areas of Information Awareness and Knowledge Dissemination. (Kadokawa Publishing, 2001; ISDN 4-04-704040-1).
- In *vom Intranet zum Wissensmanagement,* Kuppinger and Woywode demonstrate how Organizational IQ can help to transform an intranet into a knowledge-management tool. They also analyze the gaps in current tools and suggest ways to overcome them (Hanser Elektronik, 2000; ISDN 3-446-21398-8).
- The Japanese book *Organizational IQ Strategy* describes Japanese companies' successful application of the concept of Organizational IQ as well as recent research results in Organizational IQ (NRI Publishing, 2001, ISDN 4-88990-096-9).

FOR ADDITIONAL INFORMATION about the topics in this study, submit inquiries through your Executive Contact to the Scan program in your area (see the addresses opposite).

SRIC-BI's SCAN PROGRAM provides clients with a system of integrated research intelligence and customized services to help identify signals of change in the business environment, define new market opportunities, identify and communicate future challenges, formulate and implement business strategy, and develop innovative products, processes, and services. Clients access the following research and consulting services:

- *Scan Monthly* provides an early warning of signals of change and emerging trends that present threats or opportunities to Scan clients. *Scan Monthly* also lists newly available Insights (see below) each month.

- *Insights.* Announced in the *Scan Monthly* and available on the Web, these publications provide additional coverage of defining forces and other developments in technology, market, and management topics.

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