## Informal Networks: The Company Behind the Chart

by David Krackhardt and Jeff Hanson



Reprint 93406

## Harvard Business Review

#### JULY-AUGUST 1993

	Reprint	Number
RICHARD NORMANN AND RAFAEL RAMIREZ	FROM VALUE CHAIN TO VALUE CONSTELLATION: DESIGNING INTERACTIVE STRATEGY	93408
DAVID A. GARVIN	BUILDING A LEARNING ORGANIZATION	93402
george stalk, jr. And alan m. Webber	JAPAN'S DARK SIDE OF TIME	93409
David Krackhardt And jeff Hanson	INFORMAL NETWORKS: THE COMPANY BEHIND THE CHART	93406
BARBARA PRESLEY NOBLE	REINVENTING LABOR: AN INTERVIEW WITH UNION PRESIDENT LYNN WILLIAMS	93410
Robert Kelley And Janet Caplan	HOW BELL LABS CREATES STAR PERFORMERS	93405
Alistair d. Williamson	HBR CASE STUDY IS THIS THE RIGHT TIME TO COME OUT?	93411
Laurence hecht And peter Morici	World View Managing Risks in Mexico	93403
JOSEPH M. JURAN	FIRST PERSON MADE IN U.S.A.: A RENAISSANCE IN QUALITY	93404
NANCY A. NICHOLS	IN QUESTION Whatever happened to rosie the riveter?	93407
	PERSPECTIVES IS THE DEFICIT A FRIENDLY GIANT AFTER ALL?	93401

Mapping employees' relationships can help managers harness the real power in their organizations.

Informal Networks: The Company

#### by David Krackhardt and Jeff Hanson

Many executives invest considerable resources in restructuring their companies, drawing and redrawing organizational charts only to be disappointed by the results. That's because much of the real work of companies happens despite the formal organization. Often what needs attention is the informal organization, the networks of relationships that employees form across functions and divisions to accomplish tasks fast. These informal networks can cut through formal reporting procedures to jump start stalled initiatives and meet extraordinary deadlines. But informal networks can just as easily sabotage companies' best laid plans by blocking communication and fomenting opposition to change unless managers know how to identify and direct them. Learning how to map these social links can help managers harness the real power in their companies and revamp their formal organizations to let the informal ones thrive.

If the formal organization is the skeleton of a company, the informal is the central nervous system driving the collective thought processes, actions, and reactions of its business units. Designed to facilitate standard modes of production, the formal organization is set up to handle easily anticipated problems. But when unexpected problems arise, the informal organization kicks in. Its complex webs of social ties form every time colleagues communicate and solidify over time into surprisingly stable networks. Highly adaptive, informal networks move diagonally and elliptically, skipping entire functions to get work done.

Managers often pride themselves on understanding how these networks operate. They will readily tell you who confers on technical matters and who discusses office politics over lunch. What's startling is how often they are wrong. Although they may be able to diagram accurately the social links of the five or six people closest to them, their assumptions about employees outside their immediate circle are usually off the mark. Even the most psychologically shrewd managers lack critical information about how employees spend their days and how they feel about their peers. Managers simply can't be everywhere at once, nor can they read people's minds. So they're left to draw conclusions based on superficial observations, without the tools to test their perceptions.

Armed with faulty information, managers often rely on traditional techniques to control these net-

David Krackhardt is a professor of organizations and public policy at Carnegie Mellon University's H. John Heinz III College and a professor of organizational behavior at its Tepper School of Business. Jeff Hanson (jhanson@ hansonadv.com) is the founder of Hanson Advisors, a New York-based consulting firm that has advised financial and professional service companies, institutional investors, and partnership organizations for over two decades.

## Behind the Chart

works. Some managers hope that the authority inherent in their titles will override the power of informal links. Fearful of any groups they can't command, they create rigid rules that will hamper the work of the informal networks. Other managers try to recruit "moles" to provide intelligence. More enlightened managers run focus groups and host retreats to "get in touch" with their employees. But such approaches won't rein in these freewheeling networks, nor will they give managers an accurate picture of what they look like.

Using network analysis, however, managers can translate a myriad of relationship ties into maps that show how the informal organization gets work done. Managers can get a good overall picture by diagramming three types of relationship networks:  $\Box$  The advice network shows the prominent players in an organization on whom others depend to solve problems and provide technical information.

□ The trust network tells which employees share delicate political information and back one another in a crisis.

 $\Box$  The communication network reveals the employees who talk about work-related matters on a regular basis.

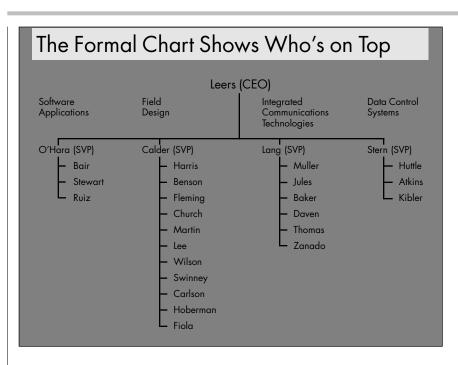
Maps of these relationships can help managers understand the networks that once eluded them and leverage these networks to solve organizational problems. Case studies using fictional names, based on companies with which we have worked, show how managers can bring out the strengths in their networks, restructure their formal organizations to complement the informal, and "rewire" faulty networks to work with company goals.

#### The Steps of Network Analysis

We learned the significance of the informal network 12 years ago while conducting research at a bank that had an 80% turnover rate among its tellers. Interviews revealed that the tellers' reasons for leaving had less to do with the bank's formal organization than with the tellers' relationships to key players in their trust networks. When these players left, others followed in droves.

Much research had already established the influence of central figures in informal networks. Our subsequent studies of public and private companies showed that understanding these networks could increase the influence of managers outside the inner circle. If they learned who wielded power in networks and how various coalitions functioned, they could work with the informal organization to solve problems and improve performance.

HARVARD BUSINESS REVIEW July-August 1993



Mapping advice networks, our research showed, can uncover the source of political conflicts and failure to achieve strategic objectives. Because these networks show the most influential players in the day-to-day operations of a company, they are useful to examine when a company is considering routine changes. Trust networks often reveal the causes of nonroutine problems such as poor performance by temporary teams. Companies should examine trust networks when implementing a major change or experiencing a crisis. The communication network can help identify gaps in information flow, the inefficient use of resources, and the failure to generate new ideas. They should be examined when productivity is low.

Managers can analyze informal networks in three steps. Step one is conducting a network survey using employee questionnaires. The survey is designed to solicit responses about who talks to whom about work, who trusts whom, and who advises whom on technical matters. It is important to pretest the survey on a small group of employees to see if any questions are ambiguous or meet with resistance. In some companies, for example, employees are comfortable answering questions about friendship; in others, they deem such questions too personal and intrusive. The following are among the questions often asked:

 $\Box$  Whom do you talk to every day?

106

 $\Box$  Whom do you go to for help or advice at least once a week?

□ With one day of training, whose job could you step into?

□ Whom would you recruit to support a proposal of yours that could be unpopular?

□ Whom would you trust to keep in confidence your concerns about a work-related issue?

Some companies also find it useful to conduct surveys to determine managers' *impressions* of informal networks so that these can be compared with the actual networks revealed by the employee questionnaires. In such surveys, questions are posed like this:  $\Box$  Whom do you think Steve goes to for work-related advice?  $\Box$  Whom would Susan trust to keep her confidence about workrelated concerns?

The key to eliciting honest answers from employees is to earn their trust. They must be assured

that managers will not use their answers against them or the employees mentioned in their responses and that their immediate colleagues will not have access to the information. In general, respondents are comfortable if upper-level managers not mentioned in the surveys see the results.

After questionnaires are completed, the second step is cross-checking the answers. Some employees, worried about offending their colleagues, say they talk to *everyone* in the department on a daily basis. If Judy Smith says she regularly talks to Bill Johnson about work, make sure that Johnson says he talks to Smith. Managers should discount any answers not confirmed by both parties. The final map should not be based on the impressions of one employee but on the consensus of the group.

The third step is processing the information using one of several commercially available computer programs that generate detailed network maps. (Drawing maps is a laborious process that tends to result in curved lines that are difficult to read.) Maps in hand, a skilled manager can devise a strategy that plays on the strengths of the informal organization, as David Leers, the founder and CEO of a California-based computer company, found out.

#### Whom Do You Trust?

David Leers thought he knew his employees well. In 15 years, the company had trained a cadre of loyal professionals who had built a strong region-

HARVARD BUSINESS REVIEW July-August 1993

al reputation for delivering customized office information systems (see "The Formal Chart Shows Who's on Top"). The field design group, responsible for designing and installing the systems, generated the largest block of revenues. For years it had been the linchpin of the operation, led by the company's technical superstars, with whom Leers kept in close contact.

But Leers feared that the company was losing its competitive edge by shortchanging its other divisions, such as software applications and integrated communications technologies. When members of

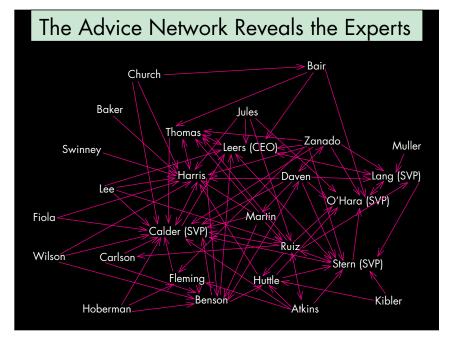
field design saw Leers start pumping more money into these divisions, they worried about losing their privileged position. Key employees started voicing dissatisfaction about their compensation, and Leers knew he had the makings of a morale problem that could result in defections.

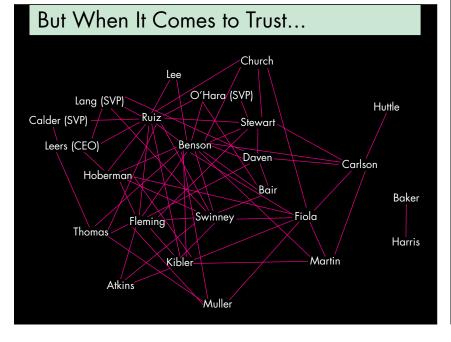
To persuade employees to support a new direction for the company, Leers decided to involve them in the planning process. He formed a strategic task force composed of members of all divisions and led by a member of field design to signal his continuing commitment to the group. He wanted a leader who had credibility with his peers and was a proven performer. Eight-year company veteran Tom Harris seemed obvious for the job.

Leers was optimistic after the first meeting. Members generated good discussion about key competitive dilemmas. A month later, however, he found that the group had made little progress. Within two months, the group was completely deadlocked by members championing their own agendas. Although a highly effective manager, Leers lacked the necessary distance to identify the source of his problem.

An analysis of the company's trust and advice networks helped him get a clearer picture of the dynamics at work in the task force. The trust map turned out to be most revealing. Task force leader Tom Harris held a central position in the advice network – meaning that many employees relied on him for technical advice (see "The Advice Network Reveals the Experts"). But he had only *one* trust link with a colleague (see "But When It Comes to Trust..."). Leers concluded that Harris's weak position in the trust network was a main reason for the task force's inability to produce results.

In his job, Harris was able to leverage his position in the advice network to get work done quickly. As a task force leader, however, his technical expertise was less important than his ability to moderate







conflicting views, focus the group's thinking, and win the commitment of task force members to mutually agreed-upon strategies. Because he was a loner who took more interest in computer games than in colleagues' opinions, task force members didn't trust him to take their ideas seriously or look out for their interests. So they focused instead on defending their turf.

With this critical piece of information, the CEO crafted a solution. He did not want to undermine the original rationale of the task force by declaring it a failure. Nor did he want to embarrass a valued employee by summarily removing him as task force head. Any response, he concluded, had to run with the natural grain of the informal organization. He decided to redesign the team to reflect the inherent strengths of the trust network.

Referring to the map, Leers looked for someone in the trust network who could share responsibilities with Harris. He chose Bill Benson, a warm, amiable person who occupied a central position in the network and with whom Harris had already established a solid working relationship. He publicly justified his decision to name two task force heads as necessary, given the time pressures and scope of the problem.

Within three weeks, Leers could see changes in the group's dynamics. Because task force members trusted Benson to act in the best interest of the entire group, people talked more openly and let go of their fixed positions. During the next two months, the task force made significant progress in proposing a strategic direction for the company. And in the process of working together, the task force helped integrate the company's divisions.

A further look at the company's advice and trust networks uncovered another serious problem, this time with the head of field design, Jim Calder.

The CEO had appointed Calder manager because his colleagues respected him as the most technically accomplished person in the division. Leers thought Calder would have the professional credibility to lead a diverse group of very specialized design consultants. This is a common practice in professional service organizations: make your best producer the manager. Calder, however, turned out to be a very marginal figure in the trust network. His managerial ability and skills were sorely

lacking, which proved to be a deficit that outweighed the positive effects derived from his technical expertise. He regularly told people they were stupid and paid little attention to their professional concerns.

Leers knew that Calder was no diplomat, but he had no idea to what extent the performance and morale of the group were suffering as a result of Calder's tyrannical management style. In fact, a map based on Leers's initial perceptions of the trust network put Calder in a central position (see "How the CEO Views the Trust Network"). Leers took for granted that Calder had good personal relationships with the people on his team. His assumption was not unusual. Frequently, senior managers presume that formal work ties will yield good relationship ties over time, and they assume that if they trust someone, others will too.

The map of Calder's perceptions was also surprising (see "The Trust Network According to Calder"). He saw almost no trust

<image><section-header><section-header>

108

How the CEO Views the Trust Network

HARVARD BUSINESS REVIEW July-August 1993

links in his group at all. Calder was oblivious to *any* of the trust dependencies emerging around him – a worrisome characteristic for a manager.

The information in these maps helped Leers formulate a solution. Again, he concluded that he needed to change the formal organization to reflect the structure of the informal network. Rather than promoting or demoting Calder, Leers cross-promoted him to an elite "special situations team," reporting directly to the CEO. His job involved working with highly sophisticated clients on specialized problems. The position took better advantage of Calder's technical skills and turned out to be good for him socially as well. Calder, Leers learned, hated dealing with formal management responsibilities and the pressure of running a large group.

Leers was now free to promote John Fleming, a tactful, even-tempered employee, to the head of field design. A central player in the trust network, Fleming was also influential in the advice network. The field group's performance improved significantly over the next quarter, and the company was able to create a highly profitable revenue stream through the activities of Calder's new team.

#### Whom Do You Talk To?

When it comes to communication, more is not always better, as the top management of a large East Coast bank discovered. A survey showed that customers were dissatisfied with the information they were receiving about banking services. Branch managers, top managers realized, were not communicating critical information about available services to tellers. As a result, customers' questions were not answered in a timely fashion.

Management was convinced that more talking among parties would improve customer service and increase profits. A memo was circulated ordering branch managers to "increase communication flow and coordination within and across branches and to make a personal effort to increase the amount and effectiveness of their own interpersonal communications with their staffs."

A study of the communication networks of 24 branches, however, showed the error of this thinking. *More* communication ties did not distinguish the most profitable branches; the *quality* of communication determined their success. Nonhierarchical branches, those with two-way communication between people of all levels, were 70% more profitable than branches with one-way communication patterns between "superiors" and staff. The communication networks of two branches located in the same city illustrated this point. Branch 1 had a central figure, a supervisor, with whom many tellers reported communicating about their work on a daily basis. The supervisor confirmed that employees talked to her, but she reported communicating with only half of these tellers about work-related matters by the end of the day. The tellers, we later learned, resented this one-way communication flow. Information they viewed as critical to their success flowed up the organization but not down. They complained that the supervisor was cold and remote and failed to keep them informed. As a result, productivity suffered.

In contrast, Branch 2 had very few one-way communication lines but many mutual, two-way lines. Tellers in this branch said they were well-informed about the normal course of work flow and reported greater satisfaction with their jobs.

After viewing the communication map, top management abandoned the more-is-better strategy and began exploring ways of fostering mutual communication in all the branches. In this case, management did not recast the formal structure of the branches. Instead, it opted to improve relationships within the established framework. The bank sponsored mini-seminars in the branches, in which the problems revealed by the maps were openly discussed. These consciousness-raising sessions spurred many supervisors to communicate more substantive information to tellers. District managers were charged with coming up with their own strategies for improving communication. The bank

#### The manager didn't know that there were two distinct cultures in his branch until he saw the communication network map.

surveyed employees at regular intervals to see if their supervisors were communicating effectively, and supervisors were informed of the results.

The communication network of a third branch surfaced another management challenge: the branch had divided itself into two distinct groups, each with its own culture and mode of operation. The network map showed that one group had evolved into the "main branch," consisting of tellers, loan officers, and administrative staff. The other group was a kind of "sub-branch," made up primarily of tellers and administrators. It turned

HARVARD BUSINESS REVIEW July-August 1993

out that the sub-branch staff worked during nonpeak and Saturday hours, while main-branch employees worked during peak and weekday hours. The two cultures never clashed because they rarely interacted.

The groups might have coexisted peacefully if customers had not begun complaining about the sub-branch. The main-branch staff, they reported, was responsive to their needs, while the sub-branch staff was often indifferent and even rude. Subbranch employees, it turned out, felt little loyalty to the bank because they didn't feel part of the organization. They were excluded from staff meetings, which were scheduled in the morning, and they had little contact with the branch manager, who worked a normal weekday shift.

The manager, who was embedded in the main branch, was not even aware that this distinct culture existed until he saw the communication network map. His challenge was to unify the two groups. He decided not to revamp the formal structure, nor did he mount a major public-relations campaign to integrate the two cultures, fearing that each group would reject the other because the existing ties among its members were so strong. Instead, he opted for a stealth approach. He exposed people from one group to people from the other in the hopes of expanding the informal network. Although such forced interaction does not guarantee the emergence of stable networks, more contact increases the likelihood that some new ties will stick.

Previously planned technical training programs for tellers presented the opportunity to initiate change. The manager altered his original plans for

#### What matters is the *fit*, whether networks are in sync with company goals.

on-site training and opted instead for an off-site facility, even though it was more expensive. He sent mixed groups of sub-branch and main-branch employees to programs to promote gradual, neutral interaction and communication. Then he followed up with a series of selective "staff swaps" whereby he shifted work schedules temporarily. When someone from the main branch called in sick or was about to go on vacation, he elected a substitute from the sub-branch. And he rescheduled staff meetings so that all employees could attend.

This approach helped unify the two cultures, which improved levels of customer satisfaction with the branch as a whole over a six-month period. By increasing his own interaction with the sub-branch, the manager discovered critical information about customers, procedures, and data systems. Without even realizing it, he had been making key decisions based on incomplete data.

#### Network Holes and Other Problems

As managers become more sophisticated in analyzing their communication networks, they can use them to spot five common configurations. None of these are inherently good or bad, functional or dysfunctional. What matters is the *fit*, whether networks are in sync with company goals. When the two are at odds, managers can attempt to broaden or reshape the informal networks using a variety of tactics.

**Imploded relationships.** Communication maps often show departments that have few links to other groups. In these situations, employees in a department spend all their time talking among themselves and neglect to cultivate relationships with the rest of their colleagues. Frequently, in such cases, only the most senior employees have ties with people outside their areas. And they may hoard these contacts by failing to introduce these people to junior colleagues.

To counter this behavior, one manager implemented a mentor system in which senior employees were responsible for introducing their apprentices to people in other groups who could help them do their jobs. Another manager instituted a policy of picking up the tab for "power breakfasts," as long as the employees were from different departments.

**Irregular communication patterns.** The opposite pattern can be just as troubling. Sometimes employees communicate only with members of other groups and not among themselves. To foster camaraderie, one manager sponsored seasonal sporting events with members of the "problem group" assigned to the same team. Staff meetings can also be helpful if they're really used to share resources and exchange important information about work.

A lack of cohesion resulting in factionalism suggests a more serious underlying problem that requires bridge building. Initiating discussions among peripheral players in each faction can help uncover the root of the problem and suggest solutions. These parties will be much less resistant to compromise than the faction leaders, who will feel more impassioned about their positions.

Fragile structures. Sometimes group members communicate only among themselves and with

employees in one other division. This can be problematic when the contribution of several areas is necessary to accomplish work quickly and spawn creativity. One insurance company manager, a naturally gregarious fellow, tried to broaden employees' contacts by organizing meetings and cocktail parties for members of several divisions. Whenever possible, he introduced employees he thought should be cultivating working relationships. Because of his warm, easygoing manner, they didn't find his methods intrusive. In fact, they appreciated his personal interest in their careers.

Holes in the network. A map may reveal obvious network holes, places you would expect to find relationship ties but don't. In a large corporate law firm, for example, a group of litigators was not talking to the firm's criminal lawyers, a state of affairs that startled the senior partner. To begin tackling the problem, the partner posed complex problems to criminal lawyers that only regular consultations with litigators could solve. Again, arranging such interactions will not ensure the formation of enduring relationships, but continuous exposure increases the possibility.

"Bow ties." Another common trouble spot is the bow tie, a network in which many players are dependent on a single employee but not on each other. Individuals at the center knot of a bow tie have tremendous power and control within the network, much more than would be granted them on a formal organizational chart. If the person at the knot leaves, connections between isolated groups can collapse. If the person remains, organizational processes tend to become rigid and slow, and the individual is often torn between the demands of several groups. To undo such a knot, one manager self-consciously cultivated a stronger relationship with the person at the center. It took the pressure off the employee, who was no longer a lone operative, and it helped to diffuse some of his power.

In general, managers should help employees develop relationships within the informal structure that will enable them to make valuable contributions to the company. Managers need to guide employees to cultivate the right mix of relationships. Employees can leverage the power of informal relationships by building both strong ties, relationships with a high frequency of interaction, and weak ties, those with a lower frequency. They can call on the latter at key junctures to solve organizational problems and generate new ideas.

**Testing the solution.** Managers can anticipate how a strategic decision will affect the informal organization by simulating network maps. This is particularly valuable when a company wants to anticipate reactions to change. A company that wants to form a strategic SWAT team that would remove key employees from the day-to-day operations of a division, for example, can design a map of the area without those players. If removing the central advice person from the network leaves the division with a group of isolates, the manager should reconsider the strategy.

Failure to test solutions can lead to unfortunate results. When the trust network map of a bank showed a loan officer to be an isolate, the manager jumped to the conclusion that the officer was expendable. The manager was convinced that he could replace the employee, a veteran of the company, with a younger, less expensive person who was more of a team player.

What the manager had neglected to consider was how important this officer was to the company's day-to-day operations. He might not have been a prime candidate for a high-level strategy team that demanded excellent social skills, but his expertise, honed by years of experience, would have been impossible to replace. In addition, he had cultivated a close relationship with the bank's largest client – something an in-house network map would never have revealed. Pictures don't tell the whole story; network maps are just one tool among many.

The most important change for a company to anticipate is a complete overhaul of its formal structure. Too many companies fail to consider how such a restructuring will affect their informal organizations. Managers assume that if a company eliminates layers of bureaucracy, the informal organization will simply adjust. It will adjust all right, but there's no guarantee that it will benefit the company. Managers would do well to consider what type of redesign will play on the inherent strengths of key players and give them the freedom to thrive. Policies should allow all employees easy access to colleagues who can help them carry out tasks quickly and efficiently, regardless of their status or area of jurisdiction.

Experienced network managers who can use maps to identify, leverage, and revamp informal networks will become increasingly valuable as companies continue to flatten and rely on teams. As organizations abandon hierarchical structures, managers will have to rely less on the authority inherent in their title and more on their relationships with players in their informal networks. They will need to focus less on overseeing employees "below" them and more on managing people across functions and disciplines. Understanding relationships will be the key to managerial success. Reprint 93406

HARVARD BUSINESS REVIEW July-August 1993

# Harvard Business Review



HBR Subscriptions	Harvard Business Review U.S. and Canada Subscription Service P.O. Box 52623 Boulder, CO 80322-2623 Telephone: (800) 274-3214 Fax: (617) 496-8145 American Express, MasterCard,	Outside U.S. and Canada Tower House Sovereign Park Lathkill Street Market Harborough Leicestershire LE16 9EF Telephone: 44-85-846-8888 Fax: 44-85-843-4958 VISA accepted. Billing available.
HBR Article Reprints HBR Index and Other Catalogs HBS Cases HBS Press Books	Harvard Business School Publishing Customer Service - Box 230-5 60 Harvard Way Boston, MA 02163 Telephone: U.S. and Canada (800) 545-7685 Outside U.S. and Canada: (617) 495-6117 or 495-6192 Fax: (617) 495-6985 Internet address: custserv@cchbspub.harvard.edu	
HBS Management Productions Videos	Harvard Business School Management Productions videos are produced by award winning documentary filmmakers. You'll find them lively, engaging, and informative.	
HBR Custom Reprints	Please inquire about HBR's custom service and quantity discounts. We will print your company's logo on the cover of reprints, collec- tions, or books in black and white, two color, or four color. The pro- cess is easy, cost effective, and quick. Telephone: (617) 495-6198 or Fax: (617) 496-8866	
Permissions	For permission to quote or reprin Telephone: (800) 545-7685 or Fax For permission to re-publish plea Permissions Editor Harvard Business School Publish Box 230-5 60 Harvard Way Boston, MA 02163 Telephone: (617) 495-6849	r: (617) 495-6985 ase write or call: