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How 'Who You Know' Affects What You Decide

Informal decision networks — both within teams and throughout organizations — can systematically bias the way decisions are framed and carried out. Here's how to build your networks right.

BY ROB CROSS, ROBERT J. THOMAS AND DAVID A. LIGHT

THE LEADING QUESTION

How do informal networks in organizations affect the ways decisions are framed and executed?

FINDINGS

- **Leaders often try to rectify inefficient and ineffective decision making by increasing collaboration.**
- **Leaders are often blind to the way their own informal network bias affects how they frame decisions.**
- **The technique of network analysis enables leaders to see where they are overloaded and where they are missing contributions from the periphery.**

THERE IS NO SHORTAGE of high profile examples of bad business decisions. Less well-known but just as insidious is the large number of good decisions that go bad. Frequently these decisions are premised on good ideas that garner support but then somehow get lost, sidetracked or even reversed en route from approval to execution. Bad decisions and poor decision-making processes are a big drain on management time, waste precious resources (often not detected on any balance sheet) and put a serious crimp on innovation. Over the years, researchers have attempted to understand the reasons for these failures. Many have focused on problems inherent to small groups: bad chemistry, ineffective leadership, failed group processes, groupthink and more.[1] Psychologists, for their part, have highlighted

"cognitive biases" — for example, the overconfidence of decision makers and their tendency to discount alternative viewpoints.[2] Although such factors are certainly important, researchers have largely overlooked another significant explanation for the problem: the role networks play, both within a team and throughout an organization, in the way decisions are framed and how they are carried out.

Executives often frame problems based on their own network of influential relationships. Social scientists have shown that "who you know" has much to do with "what you know."[3] One researcher, summarizing a decade's worth of studies focused on how engineers solved problems, found that engineers and scientists looking for information were roughly five times more likely to turn to friends or colleagues than to electronic and paper-based repositories.[4] Even with the explosion of information technology, our own research and that of many others points to the substantive degree to which people continue to rely on other people for the information they need to get their work done.[5] But researchers have yet to apply this fundamental awareness to the way networks can systematically bias the information executives rely on in framing decisions.

Networks also play a pivotal role in how organizational decisions are executed. A "good" or "right" decision is of little value if it is not accepted or acted on by employees or informal networks of employees. Company leaders often recognize the power of such networks but fail to leverage them, relying instead on the organization's formal structure. Frequently they establish clear accountabilities and decision processes in the belief that they are building more flexible and adaptive organizations. But unless the informal networks adapt as well, these efforts are usually counterproductive. Researchers have touched on this issue in studies of power, the diffusion of innovation, information flow and social capital.[6] However, relatively little research has gone into understanding how network analysis can be used by managers to assess informal networks and streamline decision making in organizations.[7]

We wanted to understand how companies could apply a network perspective to improving the efficiency and effectiveness of their decision processes. Specifically, we studied two life sciences companies: a young company experiencing rapid growth, and a larger, more established player in the industry. (See "About the Research.") Surprisingly, we found that in both cases the decision-making process was hampered not by failures to get the right people involved but by too much collaboration.

In the first example, we offer ways to marry process mapping and network analysis to streamline decision-making interactions in rapid growth environments where poor definition of roles and decision rights can undermine senior management's effectiveness. In the second case, we show how senior managers can improve decision making in global organizations hobbled by bureaucracy and an overly consensus-driven culture. In both examples, we show that performance improvements can occur when managers see decisions through the prism of networks within their organizations.

Streamlining Core Decision Processes

In light of the high costs of product development in the pharmaceuticals industry, the pressure to make good and timely decisions is enormous. According to the Tufts Center for the Study of Drug Development, the average development cost through Food and Drug Administration approval is nearly $1 billion, and it takes more than 14 years; post-approval research and development costs average another $100 million.[8] Despite the costs, most pharmaceuticals companies are geared toward getting it right over getting it done fast.

Many industry players sacrifice speed by taking a more-is-better approach to decision-making collaboration. They look for new ways to connect people — be it through a matrix structure, improved collaborative technology or programs aimed at cultural transformation. But the payoffs are often disappointing. The initiatives can make leaders feel that they are increasing alignment and organizational focus on strategic objectives, but these efforts frequently end up creating unmanageable collaborative demands and fail to bring about the behavioral changes they were designed to generate. Having a network perspective can help managers see what's required. It can assist leaders in ensuring that decision-making interactions that occur within their organization support the strategic objectives.

Consider Cedarwood Pharmaceuticals (an actual

company whose name we have changed). Over a 10-year period, Cedarwood grew from a five-person, single-product startup into a multidrug company with more than 3,000 employees. Senior management credited Cedarwood's success to its entrepreneurial culture of collaboration and inclusion, which fed innovation. However, by 2006, the CEO worried that the company's culture was interfering with efficient and effective decision making. An employee survey revealed that people viewed decision making as inefficient and unfocused; that decisions, once made, were often overturned; and that conflicting goals hampered important decision-making processes.

Based on these findings, the CEO established a multidivisional team to design a more effective decision-making process. The team began by tracing a series of decisions as they worked their way through the organization. It recorded each decision maker's involvement — the nature and duration of their input and the result. Process maps showed that most decisions involved too many people, demanded too much attention from senior management, and were revisited too many times. For example, in one instance four directors agreed that a capital expenditure should be funded, but the budget request took on a life of its own. Over the next five months, it consumed the time of two lower-level managers, analysts who had to run numbers several times, a director in another department, two executives and the original four directors several times — all to approve a decision that deviated only slightly from the original plan. Had the original four directors been vested with authority to make modest spending decisions, the purchase would have been made months earlier at a fraction of the labor cost.

The team found that decision-making inefficiencies permeated Cedarwood. Decision rights were not clearly delineated or allocated, and even mundane approvals had high collaborative costs: A $39,000 purchase decision generated $17,000 in labor costs over two months; another routine decision took five months to finalize, costing the company more than $60,000 in staff time spread among 25 people. And labor costs were only part of the equation. In the pharmaceuticals industry, the high opportunity cost of a delayed new product introduction can be traced to managers' spending too much time on trivial or routine decisions.

ABOUTTHE RESEARCH

We set out to understand decision-making failures in organizations by looking beyond the traditional questions involving cognitive biases and small-group dynamics. Instead, we wanted to study how informal networks within organizations impact how decisions are framed and executed — in particular, the systematic ways that networks distort the kind and credibility of information that comes to the executive team's attention. Although we have studied informal networks in more than 300 organizations, this article is based on in-depth studies of two companies in the pharmaceuticals industry.

At both Cedarwood and Juniper, we administered a network survey to top leadership. At Cedarwood, we surveyed the top three layers of leadership; at Juniper, we surveyed the top 140 members of the company's research and development unit, a group representing close to 2% of the overall employee base. We then used the survey data to create network maps and other analyses of information and decision flow within the organization that showed silos, points of overload in the network, and where people were not well connected (and thus their contributions were ignored). Next, we interviewed select members of each group to obtain qualitative accounts of decision-making concerns. Finally, we presented our findings to each group and recommended ways to reshape and rethink informal networks so that the framing and execution of decisions were faster and more effective.

In addition to decision mapping, the team studied how information flowed in an effort to find ways to improve the efficiency of decision making. This network analysis revealed a high degree of over-communication among employees at Cedarwood compared to similar networks at other companies.

To understand why there was so much collaboration at Cedarwood, the team examined both the time spent in decision-making interactions and the primary and secondary roles that colleagues played in these interactions (such as decision maker, input provider, advice provider, someone who "wanted to know" or someone who simply felt "a need to know"). By assessing the time element, the team quantified the costs of over-inclusion and was able to highlight potential cuts. For example, it found that some 60% of the time employees spent on decision making was spent with colleagues whom they identified as either input or advice providers — that is, people who weren't involved in making the actual decision. (See "Too Much Time With the Wrong People," p. 38.) Similarly, a lot of time was spent persuading people who either wanted or felt they needed to know specifics about a given decision.

The average Cedarwood employee at or above the manager level involved 13 people in his or her decision making each week, nine of whom simply provided input or advice and were not critical to

making the decision. By contrast, according to research conducted through the Network Roundtable at the University of Virginia, managers at other companies included only five to seven colleagues in similar decision cycles.[9]

Why was there so much employee interaction at Cedarwood? Part of the reason was traced to the company's rapid growth. For example, the network analysis and follow-up interviews revealed that the company's legal department frequently participated in routine decisions. There were two reasons for this: first, the company had many new employees who were unclear about when to involve lawyers; and second, the organization was particularly cautious because it had previously been sanctioned by the Food and Drug Administration for mistakes on new product filings. Upon review of this record, the legal department issued new guidelines on a range of routine decisions, which soon led to a reduction in the number of routine interactions.

The network analysis also found that Cedarwood's decision-making network was overly hierarchical — something that surprised the company's leadership, which had seen its culture as egalitarian and empowering. However, the finding made sense: When decision rights are not clear or well distributed, every decision tends to get pushed up the hierarchy, which is what happened at Cedarwood. Managers at the vice-president level and above were working to their limits, but they still kept people waiting for weeks or even months for answers. (See "The Buck (And Decision) Really *Does* Stop Here.")

One VP recognized that he was both missing out on key innovations at the periphery and acting as an obstacle because so many decisions had to pass through him. "I feel like I am making things happen all the time, but that really isn't true. It's just a bubble of activity around me, and I was missing a lot of things," he observed. Senior leaders had become unintentional decision-blockers for employees at all levels.

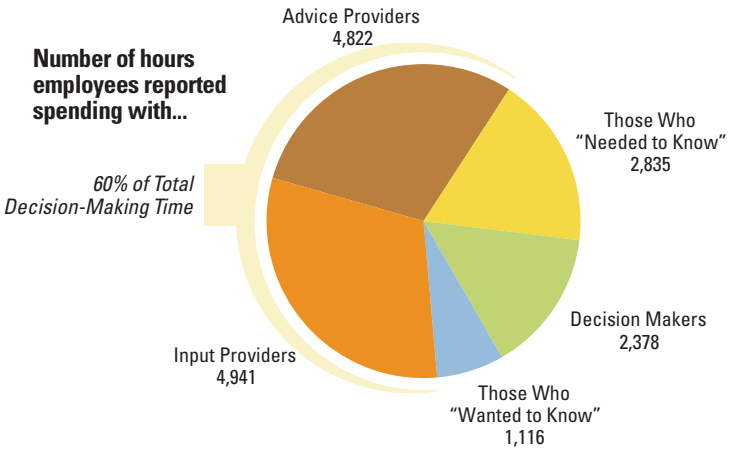
While the network analysis at Cedarwood helped the VP understand his role as a bottleneck, this is a problem most senior leaders don't recognize. After all, senior managers feel like they're making decisions all the time — and they are. Even more difficult for them to appreciate is the fact that other decisions aren't getting made because of failures to define roles and responsibilities properly, and to devolve authority and empower others. By quantifying the economic impact of a cumbersome, over-inclusive decision-making process, Cedarwood's senior leaders saw that they needed to opt out of some decisions and grant authority to others.

In order to measure the costs, people were asked about the number of hours they spent actively involved in decision making with other individuals. The survey results were compiled into interaction costs based on the estimated costs for different levels of management. The team found that Cedarwood's management consumed a total of 17,400 hours each month on decision making, incurring labor costs that totaled $1.4 million per month, a staggering cost for an organization of Cedarwood's size. Further, the amount of time employees reported spending with input or advice providers cost the company nearly $800,000 each month in labor costs. Interactions with the real decision makers, by contrast, led to a three-pronged program to revamp decision-making processes throughout the company.

Fewer Interactions First, the team drafted guides on overall decision-making principles and practices, and it produced optimal decision-flow

TOO MUCH TIME WITH THE WRONG PEOPLE

In order to discover inefficiencies in decision-making processes at Cedarwood, we asked people how much time they spent with others as part of their decision-making process. We learned that people were spending a disproportionate amount of time with individuals who provided input or advice but had no actual stake in the decision itself.



schematics for the most common types of decisions. The goal was to reduce drastically both the number of steps in key decision-making processes and the number of participants who were involved. By simplifying the decision-making network — and effectively delegating and communicating routine decision-making roles and rights — the number of costly and time-consuming interactions with input or advice providers fell sharply.

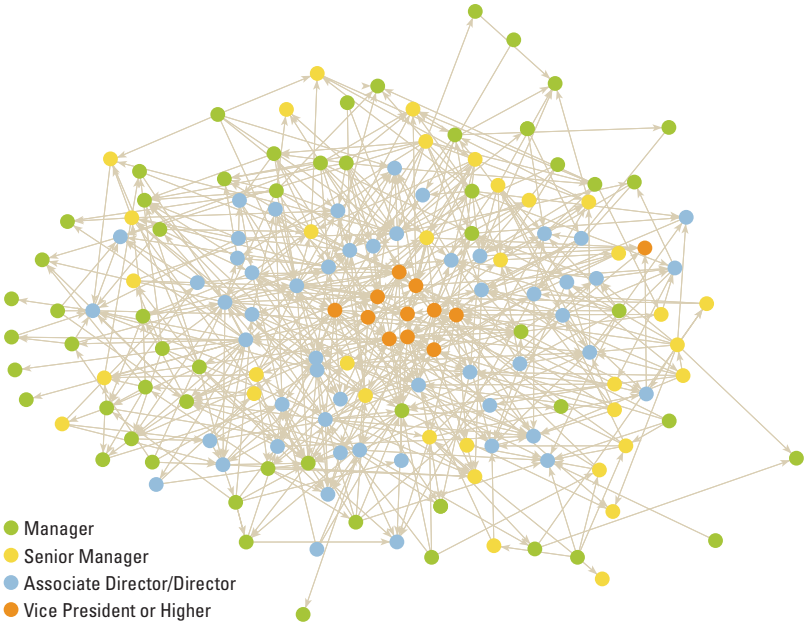
Fewer and Smaller Committees Senior leadership also established a steering committee to reconsider governance principles and practices. This group acted quickly and dramatically to reduce the number and size of committees. The pricing and distribution committee, for example, had a new mandate to move faster. In addition, new practices were instituted so that meetings would run more smoothly. Even the team charged with analyzing decision making at Cedarwood was held accountable. Because of departmental rivalries and unclear decision rights, the team deadlocked early in the process, and for several weeks its work was stalled. The new guidelines on decision-making rights helped committees avoid paralysis by consensus.

Revised Leadership Training Finally, Cedarwood began a cultural and behavioral change program to highlight individual accountability and to reduce the expectation that all decisions warranted the same level of input. Significantly, the company revamped its leadership training on decision making. It instituted conflict resolution training to ensure that disputes didn't bog down the decision-making process. In addition, it added decision-making proficiency to the list of competencies on which managers were evaluated. Specifically, leaders had to show how well they adhered to their assigned roles in routine decisions and the extent to which they helped minimize the time and interactions involved in nonroutine decisions.

Overall, these and other changes were extremely well-received by the company's employees and managers, who saw them as steps toward reversing the onset of hierarchy and rekindling Cedarwood's unique egalitarian culture. Senior leadership was also pleased by the changes.

THE BUCK (AND DECISION) REALLY *DOES* STOP HERE

The concentration of orange dots in the center of this network map shows how hierarchical decision making at Cedarwood had become, compared with maps at similar companies. So much had to pass through vice presidents and above that they became significant bottlenecks to efficiency.



Improving Top-Team Decision Making

Combining process mapping and network analysis techniques can be a powerful way to improve the effectiveness and efficiency of core decision processes. Equally impressive improvements can be achieved by understanding the roles senior managers play in information and decision-making networks. Top teams are the core of decision making in critical processes such as strategic planning, resource allocation and conflict resolution — activities that have direct and indirect impacts on organizations. Yet too often efforts to improve decision making focus on symptoms — for example, engaging in team building to enhance collaboration when the underlying problem is something else. These efforts frequently lead to excessive consensus seeking, extended decision cycles, and diffusion of effort and focus throughout an organization.

We found all of these problems when we analyzed the network of the top 140 employees of the research and development unit at Juniper, the name we have given to one of the world's largest life sciences com-

ARE YOU THE BOTTLENECK?

The following questions can help executives better understand how they are impeding efficient decision making and lead to new behaviors that de-layer networks:

- Are you too responsive or quick to help and so an easy outlet for people with problems?
- Are you creating too great a reliance on you in expertise domains that have become less central to your success now and in the future?
- Are there ways you could create connections around or beneath — rather than through — you?
- Can you keep followers from pushing you back into too central a position in the network?
- Can you teach people to tap you more selectively?
- Do you hold people accountable for lack of execution (in as positive a way as possible)?
- Do you act quickly to correct collaborative problems before they escalate?
- Do you execute quickly and at the right point on decisions requiring your involvement?
- Can you remove yourself from meetings or use them as a way to develop key talent around you?
- Can you better set expectations — your own and others' — that there might be a delay in answering their requests?

panies. Like many global organizations, Juniper had recently reorganized into a matrix-based structure, with the goal of fostering more collaboration across both new-product development and marketing and sales. The company had worked hard to formalize decision rights and create single points of authority, but it was still suffering from decision gridlock. Interviews with top managers confirmed over and over again that critical strategic decisions were not implemented efficiently and were routinely revisited and rejustified as different units carved out their turf in the new matrix structure.

Our interviews at Juniper also suggested pervasive cultural tendencies that perpetuated the decision-making problems. For example, one pattern was for employees to agree — or at least not to disagree — with a course of action during a meeting, then seek out highly influential people afterward to voice their objections. The influential people would then step into the fray and create turmoil that might continue for months. At Juniper, being "right" was highly valued, and many people were fearful of being "wrong" in a public setting. As a result, employees tended to consult a wide range of people before making a decision: to placate formal leaders in the matrix structure, to avoid marginalizing someone they might need to rely on later and, most importantly, so they could say "I spoke to so-and-so" before making the decision. Cumulatively, this contributed to network overload, because leaders remained involved in numerous decisions that should have been delegated to others.

Juniper had already invested heavily to put a new matrix structure into place. Yet the company's preexisting culture and networks continued to overpower the new design. In an effort to rescue itself from organizational gridlock, management had sought a technological fix, pouring millions of dollars into consulting services and information technology systems. Still, the problems persisted. Finally, senior leaders initiated a network analysis to identify the underlying network drivers of gridlock and to speed up and improve decision making.

One of the most important insights the network analysis provided was seeing the amount of network overload Juniper's leaders were experiencing. Connectivity at Juniper was almost 80% higher than best practice benchmarks, as determined by research at the Network Roundtable. In fact, compared to the more than 300 organizations analyzed as part of the Roundtable (and through related research before the Roundtable was established), Juniper's R&D group was the fourth most connected we had ever seen. When we shared these results with the top leaders at an offsite meeting, their initial response was to attribute the over-connectivity to the dual-reporting aspects of the matrix structure.

But the matrix was responsible for only a small portion of the network overload. To focus the discussion on the underlying cultural drivers we showed scientists at the top of the R&D group our information-flow and decision-making networks, which stripped out the formal reporting relationships. Again, formal relationships were not causing the problem; they accounted for only about 10% of the connectivity, proving that the factors behind the overload were more fundamental.

Clearly, the internal gridlock could not be resolved with an easy solution — a new collaborative tool or another offsite. The cultural and behavioral problem was deeper. And as hard as it was for established employees to work in and through the decision-making labyrinth, it was almost impossible for new, inexperienced hires.

Faced with this problem, executives often rely on the default solution — they seek more opportunities for collaboration! Juniper's leaders, however, initiated a network analysis, a short survey-based process to identify overloaded and underdeveloped areas in their networks. The team learned that for framing strategic decisions, the company was fairly insular and could benefit from reaching out to more people. But for execution of decisions, streamlining was absolutely critical to better performance within the group.

Framing Decisions The network perspective helped Juniper's executives recognize blind spots that prevented them from identifying and discussing important problems. Like most top teams, they had been exposed to a range of team-building initiatives to promote harmony and teamwork. But they had never spent time considering where information that other executives brought to group discussions actually came from.

This is a common problem. In most organizations, formal boundary lines prevent observers from seeing how people really get their work done. This problem hampers analysis of how members of the top team work. To really understand how the top team operates, executives must have a picture not just of how team members influence one another, but also how networks that span the organization affect the way they work.

To prove our point, we showed executives examples of where a team's information and problem-solving networks were well connected to units they were charged with running; we also presented examples of teams that had poor connectivity, thereby running the risk of being uninformed and surprised by problems. Some units, geographic locations and therapeutic areas within the organization had too much executive "share of mind" from top team members, while others had too little. Indeed, a costly failure that many on the top team attributed to lack of awareness of problems in one particular business unit might have been avoided had there been better connections between the executive team and the unit.

To minimize future surprises, the team committed to managing a balanced portfolio of connections with other units: Each leader would connect with specific people in a number of different units. They also agreed to focus more on the units that would be increasingly important in the future.

Individually, executives took part in a coaching program to help them adapt their own networks and incorporate other perspectives — both from inside and outside the organization. Many had fallen into the trap of relying too heavily on people and information they were already familiar with and excluding other expertise and perspectives. Most identified three or four expertise gaps, areas where they wanted to expand their individual networks in addition to that of the top team.

This network feedback process was guided in part by the leaders' intuition regarding where and how they needed to develop more robust networks. But it was also shaped by an analysis of Juniper's top performing executives and what emerged as their distinguishing characteristics. We found that the top 20% were more effective than their peers in part because they did not have networks that undercut their decision-making abilities. In contrast to other Juniper executives, they had more connections with people who bridged ties across functional lines, physical distance and hierarchical levels.

Executing Decisions Executing decisions at Juniper was no less of a problem than framing them the right way. Multiple organizational restructurings had created uncertainty about decision rights, and the tendency — even for senior people — was to seek approval from the top. This led to major bottlenecks. At the extreme, more than 70 people looked to one leader for information; 42 people said they needed to get more of this leader's time to be able to execute on key business objectives. In response, we helped this leader redraw his network by redefining his formal role and adding new roles beneath him to redirect network demands to other people.

Through interviews, we also helped clarify the information domains and decisions that could be reallocated to reduce demands on the most connected leaders, free up their time for high-value activities, and increase the ability of the top leaders to get work done more efficiently. The network perspective not only helped top Juniper executives confront their connectivity overload, but also helped them identify "rising stars" who were ready to exercise new decision rights or "go to" expertise. This proved to be a more successful way to de-layer and delegate than more traditional approaches (where already-busy people are assigned even more work).

Still, we found that several leaders continued to be overloaded for reasons that had more to do with their own behavior than their formal role. We helped these people understand their behavior patterns and encouraged them to commit to changing their approach. (See "Are You the Bottleneck?")

Finally, a key part of the decision-making network question prompted people to identify routine decisions that could be taken out of the hands of senior leaders. Fairly simple decisions — such as hiring criteria or travel approvals — didn't need to be sent up the organization's hierarchy. Each leader received an individual report on his or her own network, and with the help of an executive coach, developed a specific action plan to remove routine requests from his or her plate. And where appropriate, steps were taken

to embed certain decisions into policy protocol, thereby eliminating them entirely from the network. Some examples included resource accessibility/requests for support, approval procedures such as capital expenditures and travel requests, best practice protocols, human resource decisions on hiring and compensation, and basic project management practices in the matrix structure.

Although it is still early, the benefits of understanding how decision-making networks affect the top team appear to be compelling. The number of collaborations required to execute decisions at key points in the network has been significantly reduced. This has had a positive effect on both company performance and morale — people are not worn down by endless decision processes. One leader put it this way: "The strength of seeing decisions in this light is that it lets me for the first time see the multiplier effect I have on the organization. It helps me focus on just a few shifts to my role and behavior to reduce people's reliance on me."

In an environment of fierce and rapidly shifting competition, poor decision-making processes can be a significant liability to any organization. Having a network lens can provide critical insight into how decisions are framed and how well and quickly they are executed. Paying attention to networks represents an important opportunity for managers seeking to supplement research on cognitive and small group decision biases.

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