

Available online at www.sciencedirect.com

ScienceDirect



www.elsevier.com/locate/bushor

ORGANIZATIONAL PERFORMANCE

Struggling to innovate? Examine your structure, systems, and culture



Nathan Bennett a,*, Jacob M. Parks b

KEYWORDS

Innovation; Culture; Structure Abstract When it comes to driving organizational performance, innovation is widely touted as a critical capability. Whether the focus is internal and on finding ways to improve efficiency or external and on understanding what the market desires next, leaders seeking to enhance performance will rely on their company's ability to successfully bring new ideas to the fore. Unfortunately, leaders who sense their company is experiencing an innovation deficit are too often misdiagnosing its cause. Most interventions designed to increase innovation capability focus on unleashing potential among employees; however, most of the barriers to the realization of that capability are created by organizational characteristics. In this installation of Organizational Performance, we report on the successes of a number of companies in which leaders have identified the critical barriers to innovation: structure, systems, and culture. Leaders are encouraged to understand how to invest less in employee innovation capability and more in organizational readiness to support what tends to be an already quite capable workforce.

© 2015 Kelley School of Business, Indiana University. Published by Elsevier Inc. All rights reserved.

1. Prescribing the wrong medicine for innovation ills

These days, it is increasingly unusual to speak with a leadership team whose members don't express concern over their company's ability to innovate (Anthony, Duncan, & Pontus, 2014; Wall, 2014). After all, innovation is a key in enhanced organizational

* Corresponding author *E-mail addresses*: nate@gsu.edu (N. Bennett), jmparks@profitableideas.com (J.M. Parks) performance (e.g., Jimenez-Jimenez & Sanz-Valle, 2011). As the global recession has begun to ease, innovation has become the salve for all that ails a balance sheet. Innovation is the answer, whether the question concerns finding ways to improve margins via increased operational effectiveness, growing the top line by introducing new products touting incrementally improved features, or exploding a business model and creating a whole new industry segment with a disruptive game-changer. Companies invest a tremendous amount chasing ways to increase innovation capability: Apple expected to invest \$10 billion in 2013 (Dilger, 2013). On the other hand,

^a Robinson College of Business Administration, Georgia State University, 35 Broad Street, Atlanta, GA 30303, U.S.A.

^b Profitable Ideas Exchange, 4920 S. St. Andrews Lane, Spokane, WA 99223, U.S.A.

research has found that the amount spent is not predictive of the value of the results. A Booz and Company study found that seven of the ten most innovative companies were not among the top spenders (Jaruzelski & Mainardi, 2011).

Sensing the growing demand for answers to the question, "How do I make my company more innovative?" consultants and pundits have produced myriad best practices. Universities and other vendors are rolling out training programs at an impressive rate. Type 'innovation training' into an Internet search engine and you will quickly have access to enrollment in programs purporting to "maximize your creative flow," help you become "a creative thinker," teach you to be "an innovation leader," or allow you to earn a "certified professional innovator certificate"—all in a matter of a few days.

Taken together, vendors of all varieties have created an innovation solutions marketplace that is crowded, noisy, and confusing. As a result, the marketplace for answers to questions around increasing innovation is not particularly efficient. Most importantly, deeper inspection of the actual challenge reveals the goods for sale are not particularly well matched with what buyers need. Specifically, there is a predominance of offerings disproportionately focused on a promise to unleash underlying innovation potential in people. Focusing on the talent part of the innovation equation concerns us because our own research suggests that when it comes to producing a strong return on innovation, people are generally not the problem. We base this conclusion on extensive interviews with executives who had major responsibilities for executing the innovation strategy at companies including Clorox, Disney, Lockheed Martin, PepsiCo, Philips, Hallmark, and others.

Our purpose was to discern what innovation professionals have learned from their efforts to earn a full return on investments in building innovation capabilities. In short, when sharing their challenges in achieving this goal, none of these executives mentioned a dearth of innovative people as a barrier to innovation. Instead, leaders opined that an oftreferenced line from the Pogo cartoon strip provides the best insight: "We have met the enemy, and it is us." That is, the true barriers to a positive return on efforts to innovate are company structure, systems, and culture. As PepsiCo's Margaret Dohnalek explained, "We don't look at staffing as the problem. Obviously, we take great pains to bring in the right people, but we focus on creating the structure that drives the right relationships and facilitates innovation." We think Dohnalek's message is an important one. As another executive told us, "employees leave to do start-ups not just to retain ownership of an idea, but because who better than our own employees understand how our company's structure, culture, and systems are inconsistent with getting a new idea into the marketplace."

To be clear, neither our respondents nor we contend that people are not important to innovation. Of course they are. But companies have known this for some time; people who show initiative or problem solve have long been sought after. Companies have plenty of innovation potential to unleash; in fact, our wager is many are at a point of diminishing returns on investment in creating innovation potential. Instead, what's required is investment in creating and maintaining organizational capability to capture a return on the innovation potential latent in the people already on board. It makes no sense to send an employee off to become a certified professional innovator if after the training they are returned to a 'sick system' that simply serves as the wet blanket guaranteed to smother whatever ember was sparked through attending a program on innovation.

Herein, we share what we learned from these executives and their teams as they undertook efforts designed to get the company out of the way of people who were prepared to generate the innovation necessary to lift their employers' prospects as the global recession eased. Each of the elements we review structure, systems, and culture—are quickly revealed as either friend or foe to leaders endeavoring to create a more innovative company. And in Tables 1 and 2, we provide a more in-depth look at the way two notable innovators, Clorox and Lockheed-Martin, are achieving results. At Clorox, we spoke with Chief Innovation Officer Wayne Delker. His comments are summarized in Table 1. At Lockheed Martin, we interviewed Dr. Charles Johnson-Bey, the Open Innovation Program Manager for Corporate Engineering and Technology. His observations are presented in Table 2.

2. Creating and maintaining a supportive structure

We found three ways in which structure impacts innovation capabilities: balancing centralization and decentralization, using restructuring as a signal, and the structuring of time. We briefly discuss each next.

One common concern around innovation is whether or not the effort is best managed in a centralized manner or by allowing and supporting innovation wherever it naturally occurs. On one hand, centralization allows individuals to play off one another to create synergy, and it makes it easier to protect new ideas from a crushing bureaucracy. On the other, decentralization allows innovators to be closer to the business unit that ultimately will be

Table 1. Se	tting up for	r innovation	at Clorox
-------------	--------------	--------------	-----------

Dimension	How Clorox Does It	Key Takeaway
Funding Systems	Put innovation to the test before it requires a large investment. Product superiority is measured in blind tests with consumers. To earn more funding at least 60% of consumers must embrace the new product.	Crack the code on the problem, the insight, and the technology simultaneously. Then align funding and metrics carefully to assure progress.
Measurement Systems	Measure success and failure throughout the innovation process — to ensure that the most promising initiatives receive funding. Cycle time, the quality of the problem being solved, and the technological improvement they can bring to market are considered repeatedly throughout the cycle.	
Structure	Organize in a way that generates high quality ideas and leverages them across the organization. Innovation originates within decentralized crossfunctional groups. Additionally, a corporate insights group assimilates new ideas from employees, scientists, researchers, and product users and disseminates the best ideas.	Clorox spreads innovation throughout the organization and leverages the best ideas from every customer, employee, and external resource by harnessing the power of structure.
Culture	Host a Marketplace of Ideas. Clorox values diversity of opinion, and actively works to cultivate intellectual clashes. They recently invested in an innovation center in Pleasanton, California designed to be open, believing that ideas can only grow when the physical landscape of work mirrors the cultural value of openness. Celebrate Meritocracy. Clorox actively seeks to measure innovation based on the value of the idea. Reinforcing the idea that everybody innovates is a yearly competition: Innovent. Ideas are submitted from anywhere in the company and are filtered through a crowd sourcing mechanism, with the best ideas being evaluated by the CEO for investment. Welcome Openness. Innovating across the entire product suite at Clorox is nearly impossible to accomplish solely with internal resources. As an early champion of open innovation, Clorox reaches outside the organization to "create partnerships that allows us to do innovation and develop new products in an exclusive way that competitors can't follow."	Create a culture that deliberately invests in and rewards innovative problem solving. Clorox's performance speaks for itself. Consistent revenue growth. Better-than-industry earnings per share. A steady march up in value. Wayne's effort to create a culture of innovation is an indispensable wellspring of Clorox's long-running success.

required to support the innovation. Our findings indicate the role of structure is more complex than that in two ways. First, from the experiences of some companies, it becomes quickly evident that it is not about whether centralized or decentralized is

optimum; it is about finding and maintaining the proper balance between the two. And in other cases, it's about devising a structure that focuses on the external, rather than the internal, needs. Consider the following examples as evidence.

Table 2. Setting up for innovation at Lockheed Martin				
Dimension	How Lockheed Martin Does It	Key Takeaway		
Funding Systems	Fund innovation based on explicit customer and market needs by leveraging internal and external relationships. "The real challenge is making sure you have a very strong, sustainable business case for innovation." Key is "customer pull." Though it may not always be a perfect fit, innovation that generates customer interest is worth attention.	LM values partnerships that focus on long-term successes, not just quick wins: "These are projects where the benefits at first are intangible; you don't get money into your coffers in the short run, but longer term, you develop new markets." This insight drives an innovation function that improves day-to-day operations and unearths insights for future value creation.		
Measurement Systems	Invest in innovation by measuring and reacting to market value without ignoring the implicit and future value of innovation networks. Enthusiasm for metrics is tempered in the context of innovation. "It is important not to set such rigorous measures that intangible value created through innovation initiatives and networks are lost. We ask: Are we helping ourselves become affordable?"	Measuring Innovation is critical to ensure limited resources are applied to the best opportunities. Short-term payback is important but so also is the potential for innovation to create new markets.		
Structure	Create innovation within businesses and across the organization by placing innovation within each business unit. It takes many minds to drive innovation and a structure that encourages collaboration both within and outside the organization. Corporate innovation reports to the Chief Technology Officer. Innovation is not the work of an isolated team; innovation professionals operate within the five business units.	Structure is designed to capture innovation that comes from internal efforts, external partnerships, and Lockheed Martin's open innovation challenge. The corporate innovation function ensures that the best ideas, processes, and technologies are shared for the overall benefit of the organization. Value is created by reaching outside the organization, as well. "We have a lot of smart people here, but we don't have all the smart people. We can't afford to hire every smart person to develop all the things that we need internally. So we invite their insights into what we are doing." This imperative to collaborate leads the company to work with other leading organizations, scientists, and academics to fuel Lockheed's internal innovation efforts.		
Culture	Build off of a strong track record of innovation and create a sense of duty to push the envelope and innovate for the future. Lockheed Martin's culture is a stool that sits on three legs—a sense that they are inventing the future of flight, a thirst for finding a better way, and unparalleled commitment to quality control.	Culture is a function of what a company has done well in the past. LM has a history of pushing the envelope in flight. This inspires and creates urgency around innovation for the next LM generation of professionals.		

In one company, the chief innovation officer reported that last year his team changed from having a central, corporate technology group and moved people directly into the business areas. He said, "Our thinking was that they would carry out the

same sorts of function but because they were out in the areas it would be easier to directly align their work with the work of business." The company feels strongly that this drive to decentralize their innovation efforts has worked; people are getting much closer to major customers than they could previously, were they still sitting in the corporate organization.

Ram Santhanam, senior director of research and development at Avery Products said, "We have not had success with growth being the responsibility of a centralized function. We completely reorganized the Marketing and R&D functional teams. The message we sent out was 'innovation is everybody's business.' We decided to find people that are more divergent in their thinking and we created a team of people who spent a significant portion of their time focusing on the front end but still had responsibilities with respect to the businesses they came from. By doing that we were able to stay connected with the businesses, while also having the business be informed about what we are looking at in the front end. That way, when we did come up with an initiative that came out of work in the front end, it was easy for us to get support from the businesses."

At Hallmark, Patti Streeper explained that the company reorganized to be focused on consumer needs. Previously, innovation groups were organized by product: greeting cards, gift wrap, party favors, and so on. This structure didn't reflect the way the customer saw Hallmark products. As Streeper said, "A mom throwing a birthday party for her child doesn't care that the party plates were made by one group, the cards by another, and the streamers by still a third. She just wants it to all work together and be fun for her kid." Understanding that customer perspective led them to reorganize around the need—in this case, executing a child's party—in order to maximize the degree to which innovations suited customers.

Second, there are cases where improvements in return on innovation are attributed merely to the fact that there was a change in structure—what mattered was the movement, not its direction. Some companies have stimulated new interest in innovation by becoming more centralized while others have accomplished the same by becoming more decentralized. What drove results was not finding the 'right' amount of centralization for the innovation efforts. Instead, innovation was sparked by the energy created with the announcement of change. A switch to a decentralized view is energizing because it signals that innovation is everyone's priority. Centralizing allows concentration of effort and synergy. In both cases, the structural realignment sends everyone an undeniable and strong signal about the priority of innovation in a company's plans to move forward.

Why is it that simply changing structure produces improved results? The answer to that question lies in understanding the broader role that structure plays. Ultimately, organizational structures exist

to effectively and efficiently divide labor and then coordinate effort. For a company to be successful at innovation, a structure that supports three key processes needs to be present. First, there needs to be a successful identification of an opportunity to innovate. Second, a process needs to be in place that allows the refinement of the opportunity into a marketable form. Third, the opportunity has to be placed in the market in a manner that allows the company to capture a return. Neither centralization nor decentralization alone can guarantee success at any of the three processes. And structure can enable or disable an innovator's efforts at each of these critical steps. It is not enough that the structure be supportive; employees have to believe it is. Otherwise, structure becomes their handy excuse.

When a company doesn't have a strong history as an innovation factory, one explanation is that the structure simply has made it impossible. Employees come to feel that a new idea can't work because it's too hard to find a senior person who, if passionate about the idea, would push it forward. Or, it may be that decision makers around funding innovation are too far removed from the home of the innovation to see its potential. Or, it may be that available funding is allocated on the basis of political realities rather than market potential. In situations like these, one of the most productive things a leadership team can do is to purposefully and publically 'break' the structure around innovation. Doing so sends clear signals that innovation is important-and that a deliberate effort has been made to turn the structure from foe to friend. Nearly every one of the executives we interviewed described the way reorganizations were used as a way to create momentum and an expectation of change that leaders then channeled toward innovation efforts.

Another way structure has been connected to innovation concerns the allocation of employee time. Katja van der Wal at Philips summed up the prevailing view succinctly, "One fallacy we've dismissed is the idea of setting aside special time to be innovative. There is no reason to think you can schedule people to display creativity on a schedule, although things would sure be easier if you could. Instead, innovation can happen unpredictably in place or time. Innovation is a challenge because you have to unlock those ideas from people at moments that they are not at work." At Philips, they motivate employees to bring these ideas back to work and to share them with those in the company who can develop them. "The critical point," van der Wal says, "is to prove to people that their ideas are taken seriously." Ultimately, the currency that conveys seriousness is some form of company resource—time, money, or staff to seed further exploration. "We understand everybody who works for us has ideas and benefits from time to be creative, but we organize it differently." What Philips has demonstrated is that they are better off having a structure that reacts quickly to capture and refine innovation than one that is based on an effort to formally mandate something that eschews structure.

3. Systems aligned to facilitate innovation

In order for innovative people to succeed, several organizational systems need to be properly aligned. During our research, it quickly became apparent that the two most critical systems are those that fund and those that evaluate innovation efforts. When a company is successful at innovation, it is in no small part a result of efforts to create and then maintain close alignment between these two systems. Evaluating progress in a new area can be something approaching an art because absent are many of the traditional, quantitative measures used to gauge progress. As a result, evaluation itself requires experimentation.

Funding innovation presents two challenges for leaders. The first is deciding which among many opportunities is most deserving of investment. This is daunting, because to the degree innovation is decentralized, a company still is dependent on the management structure to recognize and put forward the opportunity. The second is determining how to match that investment with the risk and return profile associated with the innovation. Practically, a company wants to learn as quickly and as cheaply as possible what won't work so that resources are allocated to the most promising projects.

At PepsiCo, what gets considered for funding is determined by the degree to which the innovation meets the priority that's been established for the business by leadership. Dohnalek shared, "It is less of a dollar tag issue and more 'is it the right type of innovation to do.' We focus a bit less on the financial case because, while we have found assessing a project based on potential return on investment may be a valuable exercise, it can't include how well a project fits other innovation efforts, other business priorities, and more broadly how well it fits our strategy for returning the value to our shareholders."

Jon Bidwell's experience at Chubb provides an excellent overview of the challenges in funding innovation and, more importantly, how they learned to get it right. Bidwell said, "One of the problems we diagnosed early on was that Chubb had a tendency to either not invest in something or be 'all in.' There really weren't a lot of intermediate steps."

This meant, not surprisingly, that too many 'all in' investments went bust because too little was known about them at the outset and that other potentially great ideas failed to attract much attention because the initial and unrefined idea was not strong enough to reflect the innovation's true potential. As Bidwell confessed, "We would try to know everything up front. We'd then build a business case that frankly was highly speculative because it just layered uncertainties, one on top of another. But that business case was necessary in order to get funding for the 'big idea'-which sometimes didn't work." Learning from this experience, Chubb built a staged investment process. Bidwell explained, "Now we spend perhaps \$20,000 to do an experiment to establish, for example, information around certain aspects of customer behavior. If that proves out, then another modest amount is allotted to test the next piece of the idea." The goal is to provide quick access to small amounts of money to make key unknowns knowable. Bidwell found this discipline allowed Chubb to get products out more cheaply and accurately than it had in the past.

One funding challenge that Chubb has also worked to address is a bit political in nature. Sometimes, business unit leaders are quick to want to tap into new sources of money to support projects. At the corporate level, some pushback is necessary. As Bidwell explains, "We're trying to avoid becoming an off-budget funding source for 'regular' expenses, like system replacements. Before we allocate money, we require the business unit to identify what they could stop doing in order to free up funds internally. It's best when the first tranche of funding comes from 'found money' created by making smart decisions as to how the current budget is allocated. It also creates a sense of ownership from the business unit." Bidwell makes a great point: part of a company's innovation strategy needs to focus not on the new stuff, but on the stuff you should stop doing in order to create free resources.

4. A culture that isn't afraid to fail

4.1. Mistakes and failures

There are two critical characteristics of a culture that is conducive to innovation: how mistakes and failures are handled and whether it has the discipline to kill a bad project rather than escalate commitment to it. In regard to mistakes and failures, success begins with the ability to understand the difference between the two. A mistake is something that should never have been done in the first place—proceeding with the project was the wrong

thing to do. On the other hand, van der Wal says at Philips, they encourage a culture where failure is part of the learning process. "Failing and learning quickly is a prerogative of being creative and innovating." She continued, "Years ago, Philips tended to stay in a negative mode when a project failed. Today, we say 'okay it happens. It's disappointing, but let's see how we can learn from this'—and share the learning to our broader community. We want leaders thinking, 'How can I leverage this learning for my project?""

To recap, failure describes a situation in which the best decision possible was made based on the best information available and, in spite of the smart allocation of resources and effort, a project did not deliver on its promise. An innovation culture works to eliminate mistakes and to learn from—and perhaps even celebrate—failures.

4.2. The compassion to kill a project

There is another key to understanding failure and innovation: make sure that you experience failure as quickly as possible. This is another way of asking whether or not the culture supports quick decisions to kill projects so that good money doesn't chase bad. Chuck Christ, Director of R&D, Liquid Filtration Technology and Services at Donaldson, offered this from his experience, "We've had to work to be brave enough to stop a project. It's hard to do, not just because of the sunk costs, but also because of the psychological investment that your team has made." However, Donaldson's leadership has worked hard with the culture to reinforce the view that when a project isn't delivering the expected value, the company would find a way to end it that doesn't dispirit the team. Most importantly, Christ points out that while it is difficult to celebrate things nobody really feels good about, it's important to do just that: "Management has to remind people that even though work was terminated, it's not because the team made a mistake. Research is inherently risky, and sometimes things don't pan out. The goal for innovation is to learn by failing fast on the way to success. Failing fast and knowing when to stop allows everyone to move on to do something more valuable."

5. Final thoughts

Looking ahead, there is little reason to believe innovation is going to become less of a priority for companies. Similarly, innovation isn't going to become easier unless leaders commit to an enduring effort to create the sort of context within which innovation can occur (see Drucker, 1985/2002). Consideration of the efforts undertaken by the companies we studied shows how important structure, systems, and culture are to successfully executing innovation in a manner that produces the sort of results leaders are looking for. The first step toward improving return on innovation is to understand where the bottleneck occurs. It would actually make life simpler if the bottleneck had to do with people. People can be trained or replaced with relatively little disruption. Unfortunately, the true bottleneck is often the result of an inappropriate or misaligned element of structure, systems, or culture. Such problems are much more difficult to fix, but unless leadership commits resources to creating and then maintaining alignment, little else good will come from efforts to grow from innovation.

References

Anthony, S. D., Duncan, D., & Pontus, M. A. (2014). Build an innovation engine in 90 days. *Harvard Business Review*, 92(12), 59—68.

Dilger, D. E. (2013, January 24). Apple to spend \$10 billion on innovation expansion in 2013. *AppleInsider*. Available at http://appleinsider.com/articles/13/01/24/apple-to-spend-10-billion-on-innovation-expansion-in-2013

Drucker, P. F. (1985/2002). The discipline of innovation. *Harvard Business Review*, 80(8), 95–102.

Jaruzelski, B., & Mainardi, C. R. (2011, April 4). The world's 10 most innovative companies, and how they do it. Forbes. Available at http://www.forbes.com/2011/04/04/10-top-innovative-companies-apple-google-leadership-managing-how.html

Jimenez-Jimenez, D., & Sanz-Valle, R. (2011). Innovation, organizational learning, and performance. *Journal of Business Research*, 64(11), 408–417.

Wall, M. (2014, September 5). Innovate or die: The stark message for big business. *BBC News*. Available at http://www.bbc.com/news/business-28865268