



Innovation leadership: Best-practice recommendations for promoting employee creativity, voice, and knowledge sharing

Hannah Kremer [^], Isabel Villamor [^], Herman Aguinis ^{*}

School of Business, George Washington University, 2201 G Street NW, Washington, DC 20052, U.S.A.

KEYWORDS

Innovation leader;
Employee voice;
Knowledge sharing;
Leadership development;
Creativity and innovation management

Abstract Innovation—the implementation of creative ideas—is one of the most important factors of competitive advantage in 21st century organizations. Yet, leaders do not always encourage employee behaviors that are critical for innovation. We integrate existing literature on the critical factors that serve as antecedents of innovation, including employee voice and knowledge sharing, which in turn lead to creativity and innovation. Based on existing empirical research, we offer evidence-based recommendations for managers to become innovation leaders by: (1) developing the right group norms, (2) designing teams strategically, (3) managing interactions with those outside the team, (4) showing support as a leader, (5) displaying organizational support, and (6) using performance management effectively.

© 2018 Kelley School of Business, Indiana University. Published by Elsevier Inc. All rights reserved.

1. The critical role of innovation leadership for organizational success

The radical transformation of 21st century organizations is nothing less than a modern-day industrial revolution wherein innovation now plays a critical

role in determining organizational success (Cascio & Aguinis, 2008, 2019). *Innovations leaders* are change agents (Rogers, 1995) who promote the manifestation of new ideas in a work context by creating a supportive climate for creativity and managing the innovation process (Basadur, 2004).

In light of this innovation revolution, there is a key question that managers at all hierarchical levels should be asking: What can I do to become an innovation leader in my organization? This is a crucial question because organizations able to implement new ideas successfully pull ahead of the competition (Rogers, 1995). In the entertainment

^{*} Corresponding author

E-mail addresses: hkremer@gwu.edu (H. Kremer), ivillamor@gwu.edu (I. Villamor), haguinis@gwu.edu (H. Aguinis)

[^] The first two authors contributed equally and are listed alphabetically.

industry, for example, Disney's animation studio Pixar relies on cutting-edge technology and creative collaboration to gain a competitive advantage. Pixar films (e.g., *Finding Nemo*, *Finding Dory*, *Toy Story 3*) are among the 50 highest-grossing films of all time with *Toy Story 3* earning \$1.06 billion in 2010 (Mendelson, 2017), making it the third highest-grossing animated film in history. The many accolades Pixar has earned throughout the years include 17 Academy Awards, 8 Golden Globe Awards, and 11 Grammy Awards.

On the flip side of the coin, leading companies unable or unwilling to innovate face obsolescence. For nearly a century, no company commercialized the camera as successfully as Kodak. However, Kodak's leaders were unable to innovate regarding digital photography, printers, software, file sharing, and third-party apps, which resulted in a stock price drop of about 94%. Similarly, Motorola built and sold the world's first mobile phone and dominated the industry until 2003 when it introduced the trendy Razr, the top-selling mobile phone at the time. But Motorola leaders failed to innovate further and lost market share rapidly to newcomers like Apple, LG, and Samsung. From 2007 to 2009, the company lost \$4.3 billion (Ante, 2011).

Although it would be tempting to do so, the secret to Pixar's success cannot be credited to Sheriff Woody and Buzz Lightyear nor to Nemo and Dory, but to the innovation leadership of its founders. Specifically, Edwin Catmull and Alvy Ray Smith created an environment that promotes the process of transforming creative ideas into a successful final product. As Catmull described it (Hill, Brandeau, Truelove, & Lineback, 2014, p. 10):

For 20 years, I pursued a dream of making the first computer-animated film. To be honest, after that goal was realized—when we finished *Toy Story*—I was a bit lost. But then I realized the most exciting thing I had ever done was to help create the unique environment that allowed that film to be made. My new goal became . . . to build a studio that had the depth, robustness, and will to keep searching for the hard truths that preserve the confluence of forces necessary to create magic.

During the experience of producing *Toy Story*, Catmull discovered the critical role of leadership in creating an organization that fostered and enabled innovation. He understood that innovation could not be compelled or commanded but only enabled, and leaders play a critical role in making this happen.

Each Pixar film contains “tens of thousands of ideas” (Hill et al., 2014, p. 15), with suggestions

stemming from each member of the 200- to 250-person group, rather than just the director or other creative leaders. The core of Pixar's creative success is founded on the establishment of a safe work environment in which all employees are able to wholly contribute to the organization. Leaders within Pixar promote employee voice and knowledge sharing each day by supporting employees across organizational functions (e.g., art, technology, business). Pixar leaders drive innovation in all business units by hosting dailies, which are small-group gatherings held to watch and discuss presentations of works in progress. Through this practice, all employees—regardless of how technical or creative their jobs are—understand that they are contributing to the end goal: organizational success.

Many organizational members likely recognize the importance of innovation leaders. When asked about the secret of Pixar's success, former Vice President of Human Resources Ed Martin said without hesitating, “Ed and John”¹ (Hill et al., 2014). But, what can managers do to become innovation leaders? More specifically, what do innovation leaders do to encourage employee behaviors that result in innovation?

2. The secret sauce for innovation leadership: Creativity, voice, and knowledge sharing

Next, we describe empirical evidence regarding the critical role of employee voice and knowledge sharing in fostering creativity and innovation.

2.1. Creativity and innovation

Creativity is the generation of novel and useful ideas or solutions to problems (Amabile, 1983; Sternberg, 1988; Weisberg, 1988). On the other hand, innovation is the actual implementation and execution of creative ideas (Amabile, Conti, Coon, Lazenby, & Herron, 1996). As noted by LePine and Van Dyne (1998, p. 865): “Innovation begins with recognition and generation of novel ideas or solutions that challenge past practices and standard operating procedures.” And innovation does not take place in the absence of creativity. Leaders must therefore first stage organizational contexts that promote creativity.

¹ Ed Catmull and John Lasseter are President and Chief Creative Officer of Pixar, respectively.

There are two factors that lead to creativity and then innovation: employee voice and knowledge sharing. This is supported by a substantial body of empirical evidence, which we use in describing each of these factors.

2.2. Voice

Voice is discretionary, self-initiated extra-role behavior aimed at improving the organizational environment through the communication of ideas, suggestions, or concerns about work-related issues (Morrison, 2011). Voice is a critical antecedent of creativity and innovation because it improves group decision making and organizational learning (Enz & Schwenk, 1991), while also promoting a superior detection of errors (Morrison & Milliken, 2000). Voice also allows employees to experience work as exciting and inherently interesting (i.e., intrinsic motivation; Ryan & Deci, 2000), which is directly related to risk taking—a determinant of creative behavior (Amabile, Goldfarb, & Brackfield, 1990; Hennessey & Amabile, 1988; Woodman, Sawyer, & Griffin, 1993). When voice is not encouraged, employees are fearful of penalization for questioning authority, speaking up at the wrong moment, or simply rocking the boat (Aguinis et al., 2016; Burris, 2012; Chan, 2006; Grant, Gino, & Hofmann, 2011; Seibert, Kraimer, & Crant, 2001). Ensuing concerns about when to speak up—or if employees will find it worthwhile to speak up at all—should be of concern to leaders interested in promoting a psychologically safe environment ripe for creative thinking (Aguinis et al., 2016).

In sum, voice is a key success factor needed for managers to become innovation leaders because if new ideas are not articulated, they can hardly be implemented. Thus, our conclusion from this body of empirical research is that organizations will be able to implement ideas more successfully when leaders encourage employee voice (Rank, Pace, & Frese, 2004).

2.3. Knowledge sharing

A second key success factor that leads to creativity and innovation is knowledge sharing, which is the means by which employees get the most out of the accumulated knowledge in the organization. Accumulated knowledge contributes to creativity and innovation, and involves organizational culture and identity, policies, routines, systems, and also other employees (Cabrera & Cabrera, 2005; Damodaran & Olphert, 2000; Davenport & Prusak, 1998). Through the use of accumulated knowledge, knowledge sharing is positively related to ideas on, for example, how to decrease production costs and improve team as well as firm performance (Collins & Smith, 2006;

Hansen, 2002; Mesmer-Magnus & DeChurch, 2009). Arthur and Huntley (2005) examined how knowledge generated through a gain-sharing productivity improvement program had a positive effect on organizational performance. In their study of an auto parts manufacturing plant with approximately 1,300 workers, the implementation of a suggestion-based gain-sharing program from employees led to an 8% reduction in unit costs. As additional and compelling empirical evidence, in a comprehensive meta-analysis, Mesmer-Magnus and DeChurch (2009) synthesized 72 independent studies involving 4,795 groups composing a total of 17,279 individuals. Results from this meta-analysis revealed that knowledge sharing positively predicted team performance, cohesion, member satisfaction, and knowledge integration.

In sum, it is unlikely that creativity and innovation will take place in the absence of knowledge sharing. To become innovation leaders, managers need to engage in actions and implement interventions that promote knowledge sharing.

Next, we offer evidence-based recommendations on specific actions and interventions managers at all levels can implement to promote voice and knowledge sharing and, therefore, become innovation leaders. We emphasize ‘at all levels’ because innovation leaders exist at all hierarchical levels in the organization. Clearly, those in high positions like Ed and John at Pixar have the formal power and influence to promote innovation. However, the extant literature supports that managers who do not necessarily possess power and influence based on their positions can nevertheless become innovation leaders by using their informal power. Examples include NASA scientists (Andrews & Farris, 1967), managers from new product development teams (Frischer, 1993), engineers (Scott & Bruce, 1994), and section leaders (Tierney, Farmer, & Graen, 1999). These recommendations, together with implementation guidelines, are included in Table 1.

3. What innovation leaders do: Best-practice recommendations

Based on empirical research, we offer evidence-based recommendations for managers, including specific actions and interventions they can implement in order to become innovation leaders.

3.1. Recommendation #1: Develop the right group norms

Employees are more likely to speak up and exchange knowledge when they are part of a workgroup with norms of voicing suggestions, opinions, and

concerns (Morrison, 2011). For instance, a study of 626 employees working in six plants of a nonunionized, privately-owned American manufacturing firm showed that coworkers influenced norms among employees (Bommer, Miles, & Grover, 2003). A clear implication of this study for leaders looking to encourage voice in their teams is that having the

right group norms is critical. Moreover, norms can develop as a result of behaviors by just a handful of team members. In fact, the presence of just one consistent contributor in a group tends to encourage others to contribute more as well (Weber & Murnighan, 2008). Within workgroups, member contributions can spread up to three degrees of

Table 1. From manager to innovation leader: Research-based recommendations and implementation guidelines

Recommendations	Implementation Guidelines
1. Develop the right group norms	<ul style="list-style-type: none"> ● Encourage employee trust ● Praise the willingness of experts to help other employees ● Boost reinforcement of information sharing among all team members ● Create a culture that encourages knowledge sharing ● Build up norms that encourage politeness and respectful sharing of ideas ● Promote team extroversion to share experiences and knowledge among communication partners
2. Design teams strategically	<ul style="list-style-type: none"> ● Design smaller groups and encourage them to be self-managed ● Adopt fair practices, such as rotating leadership and peer evaluations to decrease the power distance among employees ● Directly ask new team members for input and encourage them to speak up as valuable team members ● Promote overt leader behavior to get more employee ideas on the table ● Rely on both formal mechanisms (e.g., suggestion systems) and espoused openness to input (e.g., an open door policy), but also show through your behavior that you explicitly welcome voice ● Train yourself in both the delivery and receipt of upward information, practice non-defensive listening, and communicate the rationale for (non)action in response to voice ● Support team cohesiveness by avoiding constant changes in team composition
3. Manage interactions with those outside the team	<ul style="list-style-type: none"> ● Encourage your team members to share their knowledge and ideas with those outside the team ● Encourage employees to demonstrate trust in their interactions ● Train for and assess trustworthy behavior through evaluation procedures or by investing in processes to create a shared vision and language for trust to flourish ● Collaborate across organizational boundaries, physical barriers, and hierarchical levels ● Enhance employees' awareness of others' expertise ● Support employee networking (e.g., affinity groups, LinkedIn, etc.)
4. Show support as a leader	<ul style="list-style-type: none"> ● Signal support for your team ● Focus on sharing lessons learned instead of mistakes made ● Promote social learning ● Establish ethical models to both support and motivate employees ● Create a climate for innovation in which employees are encouraged to propose suggestions and voice their opinion ● Employ ethical leadership practices and encourage managers at all levels to do the same
5. Display organizational support	<ul style="list-style-type: none"> ● Encourage universal support for managers and employees throughout the entire organization ● Promote structures low in bureaucracy and design formal mechanisms to facilitate upward communication ● Ask directly for ideas and suggestions from employees ● Acknowledge the value of and implement recommendations made by all employees at all organization levels ● Maintain regular encounters between employees and skip-level leaders to reduce anxiety among employees ● Do not only declare an open door policy but regularly make time to walk through that open door ● Listen more than talk and respond in ways that reduce employees' concerns about breaching written or unwritten rules ● Take steps to enhance organizational identification along with personal control (e.g., redesign jobs to increase autonomy)

Table 1 (Continued)

Recommendations	Implementation Guidelines
6. Use performance management effectively	<ul style="list-style-type: none"> ● Use performance management systems to promote voice and knowledge sharing ● Implement performance management systems that have a heavy developmental component ● Design and revise already-in-place performance management systems with the specific goal of promoting voice and knowledge sharing ● Use performance management systems to encourage employees to establish relationships that span departmental and organizational boundaries, physical barriers, or hierarchical levels ● Incorporate the behaviors found to influence voice and knowledge sharing into feedback instruments ● Institute open communication and feedback from all levels (e.g., 360-degree) to promote voice and knowledge sharing ● Create incentives (e.g., promotion, bonus, higher salary) to facilitate knowledge sharing and also help build a supportive culture ● Use performance management systems to formally quantify knowledge sharing behaviors

separation, “from person to person to person to person” (Fowler & Christakis, 2010, p. 5334).

How do innovation leaders promote positive norms in their teams? They encourage employee trust, praise the willingness of experts to help other employees, and boost reinforcement of information sharing among all team members. The reason? These actions are associated with perceptions of a culture that encourages knowledge sharing (Connelly & Kelloway, 2003). In pursuit of answering the question of how innovation leaders promote such norms, De Vries, Van den Hooff, and de Ridder (2006) examined team communication styles, which are a source of promoting both voice and knowledge sharing. They analyzed 424 members of different work-related teams and found that an agreeable communication style is positively related to team members’ willingness to share their knowledge, whereas a team’s extroverted communication style is positively related not just to willingness, but also an eagerness to share. Thus, innovation leaders build up norms that encourage politeness and the respectful sharing of ideas. Also, they promote team extroversion as it engenders an eagerness to share experiences and knowledge among communication partners. Innovation leaders encourage these behaviors because even if they do this for a handful of employees, there will be ripple effects.

3.2. Recommendation #2: Design teams strategically

Studies on team composition show that the way in which leaders staff and design their teams has important consequences for promoting voice and knowledge sharing. Size, organizing style, tenure, position, and team history have been found to be relevant aspects that innovation leaders should

consider when designing a team. A field study of 441 full-time employees in 95 workgroups showed that, in addition to staffing interventions, group design interventions enhance voice on teams. LePine and Van Dyne (1998) found that voice is more common in smaller groups, in those that are self-managed, and in those that adopt fair practices such as rotating leadership and peer evaluations. Research has also shown that newer employees display less voice than veterans. Voice, in fact, is positively related to organizational tenure (Detert & Burris, 2007; Tangirala & Ramanujam, 2008). Moreover, innovation leaders are aware that an individual’s position within the organization—formally or informally being in a position of higher power—mitigates feelings of futility and fear that voice will be punished (Morrison & Rothman, 2009). Finally, innovation leaders try to avoid making constant changes in team composition; the longer a team has been exchanging information and the higher that team’s level of cohesiveness, the more likely members are to share knowledge (Bakker, Leenders, Gabbay, Kratzer, & Van Engelen, 2006). Bakker et al.’s (2006) study of new product development projects, which included 23 teams and 91 individuals, found that trust was a poor component of knowledge sharing. In fact, team membership had the strongest effect on the density of knowledge sharing relationships.

What can innovation leaders do when they design their teams to promote voice and knowledge sharing? Create a small team and delegate authority to it. Leaders give them the freedom to speak up and establish the rules the team wants to have, for example, by showing them that they are closer to being a self-managed group in which leadership is shared than a more traditional hierarchical team. Innovation leaders also directly ask new team

members for their input and make it explicit that their ideas and suggestions are as valuable as are those made by other team members. They make clear that power or titles do not necessitate good ideas, but that good ideas come from everyone in the organization and not just from those at the top. Innovation leaders decrease the power distance with their employees and they prove it with their actions. In a study of 3,149 employees and 223 managers in a restaurant chain, [Detert and Burris \(2007\)](#), p. 882) found that the value of overt leader behavior in getting more employee ideas “on the table” had important action implications. Innovation leaders not only rely on formal mechanisms (e.g., suggestion systems) and espoused openness to input (e.g., an open-door policy), but also show through their behavior that they explicitly welcome voice. Innovation leaders also train themselves in both the delivery and receipt of information with hierarchical subordinates, practicing non-defensive listening, and communicating the rationale for (non)action in response to voice.

3.3. Recommendation #3: Manage interactions with those outside the team

Although promoting voice and knowledge sharing in teams is crucial for the creation of new ideas, innovation leaders do not forget that knowledge is also embedded in broader organizational networks. Some managers may think that knowledge should be shared only, or mainly, among team members, but innovation leaders know that interacting with those outside the team may be even more relevant for developing creative ideas. [Perry-Smith \(2006\)](#) studied research scientists in two laboratories of an applied research institute at a large university and found that weaker ties were beneficial for creativity, as they facilitated the generation of alternatives and encouraged autonomous thinking. Moreover, ties among individuals within social networks, inside or outside of the workplace, can facilitate knowledge sharing ([Cross & Cummings, 2004](#); [Reagans & McEvily, 2003](#)). Relationships crossing organizational boundaries, physical barriers, or hierarchical levels can, like networks, provide unique information and diverse perspectives to individuals completing tasks at work. Network data from 101 engineers in a petrochemical company and 125 consultants in a strategy consulting firm provided evidence that both networks and ties are related to individual performance in knowledge-intensive work ([Cross & Cummings, 2004](#)).

Thus, innovation leaders encourage knowledge sharing both within and outside the team. In addition to increasing the volume of information flow in networks, innovation leaders look to enhance

employees' awareness of others' expertise. Encouraging employees to collaborate across boundaries is one way that managers can foster awareness of who knows what in their organizations. To best train employees to promote knowledge sharing with members of other teams, innovation leaders encourage employees to demonstrate trust in their interactions. Levin and Cross' (2004) study indicated that leaders will find it fruitful to focus on ways to improve trust as a relatively inexpensive and practical way to improve the flow of useful knowledge and advice in their organizations. Indeed, some organizations are already undertaking such interventions by training for and assessing trustworthiness behavior through evaluation procedures or by investing in processes to create a shared vision and language for trust to flourish. [Levin and Cross \(2004\)](#) based their recommendations on multiple studies of mid-level managers engaged in knowledge-intensive work, including those from a division of a U.S. pharmaceutical company, a British bank, and a Canadian oil and gas company. They found that benevolence-based trust consistently matters in knowledge exchange and that competence-based trust matters most when the exchange involves tacit knowledge.

3.4. Recommendation #4: Show support as a leader

A clear sign of support from leaders is critical in the promotion of voice and knowledge-sharing initiatives. Responses from 3,153 crewmembers in 105 restaurants showed that leader openness regarding voice behavior encourages direct reports to speak up ([Detert & Burris, 2007](#)). Similarly, [Srivastava, Bartol, and Locke's \(2006\)](#) investigation of management teams in American hotel properties found that empowering leaders fostered knowledge sharing among 102 teams, with a total of 389 managers. Such gestures demonstrate to employees that management seriously considers their contributions and appreciates knowledge sharing across organizational levels. Finally, a study by [Chen and Hou \(2016\)](#) found that when direct reports perceive ethical behavior from their leaders, their creativity is enhanced. In their study of 291 employees and 58 workgroups from R&D institutions in Taiwan, [Chen and Hou \(2016\)](#) found that social learning enhanced employee creativity.

Thus, innovation leaders establish ethical models to both support and motivate employees. In addition to employing ethical leadership practices, senior managers can influence mid-level and frontline supervisors to do the same ([Chen & Hou, 2016](#)). As a result, employees garner feelings of fairness and

supportiveness, which enhance their creativity. By promoting a climate for innovation in which employees are encouraged to propose suggestions and voice their opinions, innovation leaders are able to actualize ideas out of creativity. A focus on sharing “lessons learned” instead of “mistakes made” (Teo, 2005, p. 155) gives employees the impression that their supervisors are approachable, interested in others’ input, and open to ideas and suggestions.

3.5. Recommendation #5: Display organizational support

Detert and Treviño (2010) interviewed 89 informants from a *Fortune* 500 company and found that support for voice behavior disseminates at a cultural level within organizations. Voice behavior is influenced by perceptions of not only one’s immediate boss’ behavior but also the behavior of “skip-level” leaders—that is, one’s boss’ boss (Detert & Treviño, 2010, p. 249). However, as Bartolomé and Laurent (1986, p. 81) noted: “Trust flees authority. Good ideas often remain unexpressed because direct reports believe they will be punished for disagreeing with their superiors or showing too much competence.” A key implication of this study is that innovation leaders are more aware of their direct impact on distal subordinates’ voice perceptions. For many managers attempting to start conversations with distal subordinates, a challenge is that there is less interaction history on which to rely in assessing psychological safety and, in addition, negative stories about leaders diffuse more broadly and endure longer compared to positive ones (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). A second aspect to consider is that organizational identification-enhancing practices play a key role in promoting voice, as Tangirala and Ramanujam (2008) discovered based on data from 586 frontline hospital nurses. These practices (e.g., fostering employee pride in what an organization stands for) can increase voice when they provide personal control (e.g., redesigning jobs to increase autonomy). However, they can also reduce voice when they restrict personal control (e.g., delegating little authority to employees or soliciting limited employee input when making decisions).

Thus, innovation leaders take steps to enhance organizational identification along with personal control. Innovation leaders encourage universal support for managers and employees throughout the entire organization. As Glauser (1984) underscored, upward communication is facilitated not only by physical proximity between leaders and followers, but also by structures low in bureaucracy and by the presence of formal mechanisms designed

to facilitate upward communication. Therefore, innovation leaders promote these types of structures. Innovation leaders who are committed to overcoming the challenges of promoting voice and knowledge sharing recognize the inherent obstacles and make major proactive efforts to overcome them, whether they created the barriers themselves or inherited them from predecessors. Innovation leaders at higher ranks consider that employees’ encounters with skip-level leaders are likely to provoke anxiety and they thus try to reduce status difference. They do so by asking directly for ideas, listening carefully, and acknowledging their suggestions. For example, as Detert and Treviño (2010, p. 267) pointed out, an “open door” policy is not enough to encourage voice due to the remaining signal of the underlying authority structure; meeting employees in community spaces sends a different message and lets the leaders listen while employees speak more freely.

3.6. Recommendation #6: Use performance management effectively

Most organizations have performance management systems—be it formal or informal (Aguinis, 2019). Innovation leaders use performance management systems not only to enhance their firms’ human capital (Aguinis, Gottfredson, & Joo, 2012; 2013), but also to promote voice and knowledge sharing. Why do innovation leaders do this? Because performance management systems shape a firm’s social context (Aguinis, 2019). Consider a study by Collins and Smith (2006) that analyzed how human resource practices affect the organizational social climate that facilitates knowledge exchange and how it translated to firm performance. They examined 136 high-technology firms and 1,050 knowledge workers and found that one standard deviation increase in commitment-based human resource practices (e.g., selection based on fit to the company, team building, and development of firm-specific knowledge) yielded a 16.9% increase in sales from new products and services and an 18.8% growth in sales. Social climate (i.e., trust and cooperation) and knowledge exchange explained approximately 76% of the relationship between commitment-based practices and revenue from new products and services and 84% of the relationship between commitment-based human resource practices and sales growth. Furthermore, a lack of incentives, in the form of recognition and rewards, is a major barrier to knowledge sharing (Aguinis, Joo, & Gottfredson, 2013; Yao, Kam, & Chan, 2007). Such incentives facilitate knowledge sharing and also help build a supportive culture

(Hansen, Nohria, & Tierney, 1999). Based on both social exchange and social capital theories, organizational rewards (i.e., promotion, bonus, higher salary) have a positive relationship with the frequency of knowledge contribution (Kankanhalli, Tan, & Wei, 2005). Bartol and Srivastava (2002) found employees' perceptions of fairness in organizational rewards to be important in developing trust. While it is difficult to track the knowledge-sharing behavior of employees in informal interactions (e.g., watercooler conversations), more formal interactions are measurable. Therefore, innovation leaders use performance management systems to formally quantify knowledge-sharing behaviors.

Innovation leaders use performance management systems to encourage employees to establish relationships that span departmental and organizational boundaries, physical barriers, or hierarchical levels (Cross & Cummings, 2004). To do so, innovation leaders implement performance management systems that have a heavy developmental component and enhance intrinsic motivation and performance (Kuvaas, 2007). Innovation leaders design and revise already-in-place performance management systems with the specific goal of promoting voice and knowledge sharing. Also, the types of behaviors found to influence voice and knowledge sharing are incorporated into the direct report portion of feedback instruments. In addition, 360-degree performance appraisals are particularly appropriate because peers and supervisors may have disparate views of what constitutes positive voice behaviors (Aguinis, 2019). These assessments help organizations differentiate between those managers who genuinely welcome voice and those who use formal, forced mechanisms (Detert & Burris, 2007). Particularly in organizations with skip-level subordinates, there is a greater need for opportunities for interaction with employees at multiple levels. Such opportunities should be used to build trust by consistently welcoming feedback, following up on it, and reporting about actions taken (Detert & Treviño, 2010). While potentially daunting, innovation leaders institute open communication and feedback from all levels (e.g., 360-degree performance appraisals), which is necessary to promote voice and knowledge sharing.

4. Final thoughts

Innovation is not a luxury but a necessity in the hyper-competitive and global context of 21st century organizations. Firms that harness the creativity of their workforces to transform ideas into new products and services pull ahead of the competition. Recent research has provided substantial

empirical evidence regarding the critical role of employee voice and knowledge sharing as success factors for creativity and innovation. Our evidence-based recommendations, together with implementation guidelines, can help managers become innovation leaders. Based on the empirical evidence gathered to date, leaders who embrace these recommendations will be successful at promoting voice and knowledge sharing and therefore help their organizations not just survive, but thrive.

References

- Aguinis, H. (2019). *Performance management* (4th ed.). Chicago, IL: Chicago Business Press.
- Aguinis, H., Davis, G. F., Detert, J. R., Glynn, M. A., Jackson, S. E., Kochan, T., et al. (2016). Using organizational science research to address U.S. federal agencies' management and labor needs. *Behavioral Science and Policy*, 2(2), 67–76.
- Aguinis, H., Gottfredson, R. K., & Joo, H. (2012). Using performance management to win the talent war. *Business Horizons*, 55(6), 609–616.
- Aguinis, H., Gottfredson, R. K., & Joo, H. (2013). Avoiding a “me” versus “we” dilemma: Using performance management to turn teams into a source of competitive advantage. *Business Horizons*, 56(4), 503–512.
- Aguinis, H., Joo, H., & Gottfredson, R. K. (2013). What monetary rewards can and cannot do: How to show employees the money. *Business Horizons*, 56(2), 241–249.
- Amabile, T. M. (1983). The social psychology of creativity: A componential conceptualization. *Journal of Personality and Social Psychology*, 45(2), 357–377.
- Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of Management Journal*, 39(5), 1154–1184.
- Amabile, T. M., Goldfarb, P., & Brackfield, S. C. (1990). Social influences on creativity: Evaluation, coercion, and surveillance. *Creativity Research Journal*, 3(1), 6–21.
- Andrews, F. M., & Farris, G. F. (1967). Supervisory practices and innovation in scientific teams. *Personnel Psychology*, 20(4), 497–515.
- Ante, S. E. (2011, January 05). Motorola is split into two. *The Wall Street Journal*. Available at <https://www.wsj.com/articles/SB10001424052748704111504576059863418814674>
- Arthur, J. B., & Huntley, C. L. (2005). Ramping up the organizational learning curve: Assessing the impact of deliberate learning on organizational performance under gainsharing. *Academy of Management Journal*, 48(6), 1159–1170.
- Bakker, M., Leenders, R. T. A., Gabbay, S. M., Kratzer, J., & Van Engelen, J. M. (2006). Is trust really social capital? Knowledge sharing in product development projects. *The Learning Organization*, 13(6), 594–605.
- Bartol, K. M., & Srivastava, A. (2002). Encouraging knowledge sharing: The role of organizational reward systems. *Journal of Leadership and Organizational Studies*, 9(1), 64–76.
- Bartolomé, F., & Laurent, A. (1986). The manager: Master and servant of power. *Harvard Business Review*, 64(6), 77–81.
- Basadur, M. (2004). Leading others to think innovatively together: Creative leadership. *The Leadership Quarterly*, 15(1), 103–121.
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, 5(4), 323–370.

- Bommer, W. H., Miles, E. W., & Grover, S. L. (2003). Does one good turn deserve another? Coworker influences on employee citizenship. *Journal of Organizational Behavior, 24*(2), 181–196.
- Burris, E. R. (2012). The risks and rewards of speaking up: Managerial responses to employee voice. *Academy of Management Journal, 55*(4), 851–875.
- Cabrera, E. F., & Cabrera, A. (2005). Fostering knowledge sharing through people management practices. *International Journal of Human Resource Management, 16*(5), 720–735.
- Cascio, W. F., & Aguinis, H. (2008). Staffing twenty-first-century organizations. *Academy of Management Annals, 2*(1), 133–165.
- Cascio, W. F., & Aguinis, H. (2019). *Applied psychology in talent management* (8th ed.). Thousand Oaks, CA: Sage.
- Chan, D. (2006). Interactive effects of situational judgment effectiveness and proactive personality on work perceptions and work outcomes. *Journal of Applied Psychology, 91*(2), 475–481.
- Chen, A.S.-Y., & Hou, Y.-H. (2016). The effects of ethical leadership, voice behavior, and climates for innovation on creativity: A moderated mediation examination. *The Leadership Quarterly, 27*(1), 1–13.
- Collins, C. J., & Smith, K. G. (2006). Knowledge exchange and combination: The role of human resource practices in the performance of high-technology firms. *Academy of Management Journal, 49*(3), 544–560.
- Connelly, C. E., & Kelloway, E. K. (2003). Predictors of employees' perceptions of knowledge sharing cultures. *Leadership and Organization Development Journal, 24*(5), 294–301.
- Cross, R., & Cummings, J. N. (2004). Tie and network correlates of individual performance in knowledge-intensive work. *Academy of Management Journal, 47*(6), 928–937.
- Damodaran, L., & Olphert, W. (2000). Barriers and facilitators to the use of knowledge management systems. *Behaviour and Information Technology, 19*(6), 405–413.
- Davenport, T. H., & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*. Boston, MA: Harvard Business Press.
- Detert, J. R., & Burris, E. R. (2007). Leadership behavior and employee voice: Is the door really open? *Academy of Management Journal, 50*(4), 869–884.
- Detert, J. R., & Treviño, L. K. (2010). Speaking up to higher-ups: How supervisors and skip-level leaders influence employee voice. *Organization Science, 21*(1), 249–270.
- de Vries, R. E., van den Hooff, B., & de Ridder, J. A. (2006). Explaining knowledge sharing: The role of team communication styles, job satisfaction, and performance beliefs. *Communication Research, 33*(2), 115–135.
- Enz, C. A., & Schwenk, C. R. (1991). The performance edge: Strategic and value dissensus. *Employee Responsibilities and Rights Journal, 4*(1), 75–85.
- Fowler, J. H., & Christakis, N. A. (2010). Cooperative behavior cascades in human social networks. *Proceedings of the National Academy of Sciences, 107*(12), 5334–5338.
- Frischer, J. (1993). Empowering management in new product development units. *Journal of Product Innovation Management, 10*(5), 393–401.
- Glauser, M. J. (1984). Upward information flow in organizations: Review and conceptual analysis. *Human Relations, 37*(8), 613–643.
- Grant, A. M., Gino, F., & Hofmann, D. A. (2011). Reversing the extraverted leadership advantage: The role of employee proactivity. *Academy of Management Journal, 54*(3), 528–550.
- Hansen, M. T. (2002). Knowledge networks: Explaining effective knowledge sharing in multiunit companies. *Organization Science, 13*(3), 232–248.
- Hansen, M. T., Nohria, N., & Tierney, T. (1999). What's your strategy for managing knowledge? *Harvard Business Review, 77*(2), 106–116.
- Hennessey, B. A., & Amabile, T. M. (1988). The conditions of creativity. In R. J. Sternberg (Ed.), *The nature of creativity: Contemporary psychological perspectives* (pp. 11–38). New York, NY: Cambridge University Press.
- Hill, L. A., Brandeau, G., Truelove, E., & Lineback, K. (2014). *Collective genius: The art and practice of leading innovation*. Boston, MA: Harvard Business Review Press.
- Kankanhalli, A., Tan, B. C., & Wei, K. K. (2005). Contributing knowledge to electronic knowledge repositories: An empirical investigation. *Management Information Systems Quarterly, 29*(1), 113–143.
- Kuvaas, B. (2007). Different relationships between perceptions of developmental performance appraisal and work performance. *Personnel Review, 36*(3), 378–397.
- LePine, J. A., & Van Dyne, L. (1998). Predicting voice behavior in work groups. *Journal of Applied Psychology, 83*(6), 853–868.
- Levin, D. Z., & Cross, R. (2004). The strength of weak ties you can trust: The mediating role of trust in effective knowledge transfer. *Management Science, 50*(11), 1477–1490.
- Mendelson, S. (2017, November 21). From 'Toy Story' to 'Cars 3,' every Pixar movie ranked by box office. *Forbes*. Available at <https://www.forbes.com/sites/scottmendelson/2017/11/21/box-office-pixars-animated-films-ranked/#ef86e02584fc>
- Mesmer-Magnus, J. R., & DeChurch, L. A. (2009). Information sharing and team performance: A meta-analysis. *Journal of Applied Psychology, 94*(2), 535–546.
- Morrison, E. W. (2011). Employee voice behavior: Integration and directions for future research. *Academy of Management Annals, 5*(1), 373–412.
- Morrison, E. W., & Milliken, F. J. (2000). Organizational silence: A barrier to change and development in a pluralistic world. *Academy of Management Review, 25*(4), 706–725.
- Morrison, E. W., & Rothman, N. B. (2009). Silence and the dynamics of power. In J. Greenberg & M. J. Edwards (Eds.), *Voice and silence in organizations* (pp. 111–134). Bingley, UK: Emerald Group Publishing.
- Perry-Smith, J. E. (2006). Social yet creative: The role of social relationships in facilitating individual creativity. *Academy of Management Journal, 49*(1), 85–101.
- Rank, J., Pace, V. L., & Frese, M. (2004). Three avenues for future research on creativity, innovation, and initiative. *Applied Psychology, 53*(4), 518–528.
- Reagans, R., & McEvily, B. (2003). Network structure and knowledge transfer: The effects of cohesion and range. *Administrative Science Quarterly, 48*(2), 240–267.
- Rogers, E. M. (1995). *Diffusion of innovations* (4th ed.). New York, NY: Simon and Schuster.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68–78.
- Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal, 37*(3), 580–607.
- Seibert, S. E., Kraimer, M. L., & Crant, J. M. (2001). What do proactive people do? A longitudinal model linking proactive personality and career success. *Personnel Psychology, 54*(4), 845–874.
- Srivastava, A., Bartol, K. M., & Locke, E. A. (2006). Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance. *Academy of Management Journal, 49*(6), 1239–1251.
- Sternberg, R. J. (Ed.). (1988). *The nature of creativity: Contemporary psychological perspectives*. New York, NY: Cambridge University Press.

- Tangirala, S., & Ramanujam, R. (2008). Exploring nonlinearity in employee voice: The effects of personal control and organizational identification. *Academy of Management Journal*, 51(6), 1189–1203.
- Teo, T. S. H. (2005). Meeting the challenges of knowledge management at the Housing and Development Board. *Decision Support Systems*, 41(1), 147–159.
- Tierney, P., Farmer, S. M., & Graen, G. (1999). An examination of leadership and employee creativity: The relevance of traits and relationships. *Personnel Psychology*, 52(3), 591–620.
- Weber, J. M., & Murnighan, J. K. (2008). Suckers or saviors? Consistent contributors in social dilemmas. *Journal of Personality and Social Psychology*, 96(1), 1340–1353.
- Weisberg, R. W. (1988). Problem solving and creativity. In R. J. Sternberg (Ed.), *The nature of creativity: Contemporary psychological perspectives* (pp. 148–176). New York, NY: Cambridge University Press.
- Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of Management Review*, 18(2), 293–321.
- Yao, L. J., Kam, T. H. Y., & Chan, S. H. (2007). Knowledge sharing in Asian public administration sector: The case of Hong Kong. *Journal of Enterprise Information Management*, 20(1), 51–69.