

Commentary

Best Practices for Knowledge-Based Innovation

Enterprise innovation is a competitive differentiator in the knowledge economy. Successful enterprises will define innovation as a strategic objective and will adopt the best practices of others.

The simplest definition of innovation is the creation of new products, services, processes and work practices. In the knowledge economy, most innovations result from creative use of the enterprise's broad base of intellectual assets (e.g., information, knowledge and expertise). Accordingly, the best practices for innovation management are increasingly focused on digitized information, employee knowledge and collaborative interactions. There are 11 emerging practices that can contribute to the success of enterprise innovation programs:

1. Treat knowledge, information and people as strategic assets: The most successful innovators have structural processes in place to systematically organize and provide broad access to information resources and expertise. They also ensure that information resources return value, i.e., that knowledge is used, reused, shared and leveraged. This requires a robust information strategy focused on three objectives:

- Ensuring that key knowledge (expertise and content) required to achieve business objectives is identified, captured and organized
- Ensuring that knowledge is visible by providing broad and easy access to knowledge and information resources
- Ensuring that people can use, share and easily convert tacit knowledge into explicit knowledge by providing communication and collaboration capabilities

Action: Link IT and business strategy to ensure knowledge and information assets are managed, accessible and leveraged.

2. Build intellectual capital value measures into management accounts: There has been a dramatic shift in the value of enterprises from tangible to intangible assets, yet intangibles are overlooked by accountants and badly managed by senior executives. The Brookings Institution says that U.S. enterprise accounts omit between 50 percent and 85 percent of corporate value. This corporate value is found in intellectual assets — brand image, intellectual property, and customer base, product and employee knowledge. Intellectual assets are an enterprise's only source of sustainable competitive

advantage. Managing them effectively is key to success in collaborative commerce, where innovation, customer loyalty and brand value will be the key differentiators.

Action: CFOs and finance professionals must incorporate measurement of intangible assets in corporate performance management systems, and disclose intangible asset data internally and externally.

3. Develop an innovation-friendly culture: Effective knowledge work cultures are founded on values, principles, trust, sharing and mutual respect. Further, diversity and variant views strongly stimulate new ideas and strengthen existing positions. Corporate culture develops over the life of the enterprise. If contrary behaviors prevail, they are well-established and are motivated by current policies, performance measures and processes; therefore, innovation incentives cannot simply be added on with an expectation that culture will change. Enterprises must analyze current behaviors, determine what motivates those behaviors, set new targets and redesign (perhaps radically) their incentive programs.

Action: Enterprises should design and implement the cultural changes necessary for knowledge innovation to flourish and should eliminate contrary behaviors and their drivers.

4. Align innovation objectives with individual and team objectives: Many enterprises work to establish an innovation environment but leave contradictory personal and team objectives in place. Knowledge-based innovation is accomplished using human expertise and interaction. Thus, the enterprise must communicate the innovation objectives to the employees throughout the organization and ensure that human objectives — those of the individuals and teams — are aligned with those of the business.

Action: Enterprise leaders should state clear, measurable objectives for innovation and align all levels of employees and their work objectives accordingly.

5. Formalize idea generation; get all employees involved: Enterprise innovation includes reusing, recombining and novel creation of products, services and processes. It leverages people's competencies, skills, talents, thoughts, ideas, intuition, commitment, motivation and imagination. These human assets are found throughout the enterprise and can be accessed with formal programs to elicit ideas. Enterprises can measurably increase the flow of ideas by giving employees:

- Broad access to insightful enterprise knowledge (e.g., customer case studies, problems and resolutions)
- Access to the ideas and innovations of other employees
- Opportunities to work collaboratively and in communities outside their "home" work team
- Autonomy to document and formalize their own ideas
- Clear avenues and processes to bring ideas forward for funding

Action: Enterprise leaders should establish wide information access and processes to formulate ideas and submit them for decision and action.

6. Formalize collaborative activities: Enterprises can raise the number and quality of ideas with processes that require people to interact in structured settings to share information or ideas and to develop concepts and solutions. Implementing such processes affects most IT systems, many HR systems and all the enterprise's knowledge management tools. Creating communities around knowledge tasks is a powerful way to formalize collaboration. Initially at least, it requires relatively minimal technology support — telephone and e-mail provide most of the necessary facilities at minimal additional

cost. However, communities do require good facilitation, including conflict management, as innovation is sometimes generated through competition among teams or between individuals with conflicting interests. Conflict is good if it does not impede productivity or become destructive. Skilled facilitators are required to channel conflict into creative thinking and innovative breakthroughs.

Action: Enterprise leaders should set clear collaboration goals, and use facilitation techniques, defined roles and responsibilities, and processes to manage open-ended as well as focused activities.

7. Ensure knowledge workers have time for creative thinking: Knowledge work is never characterized by well-defined production tasks. In many ways, knowledge work is never-ending and so knowledge workers never feel that they have caught up with what they have to do. Enterprises must formally recognize this characteristic of knowledge work and give knowledge workers permission, time and incentives to participate in activities outside their normal scope of responsibilities. The best new ideas come from intuitive jumps, not linear steps. Knowledge workers therefore need time for reflection, internalization of lessons learned and creation.

Action: Enterprise leaders should create and maintain processes and structures that encourage productive knowledge workers' "thinking time."

8. Design innovation teams with high diversity: Teams maximize creative synergy when members have different thinking and behavioral styles or different approaches to risk. Mixing people whose style complements and challenges the predominant one is a powerful catalyst for innovation. Global enterprises should build teams that take advantage of cultural differences and diverse business approaches. Enterprises with diverse functional areas (e.g., engineering, R&D and creative services) should look for opportunities to combine functional skills on innovation teams. Finally, formal tools can help validate that the mix of work styles is right, but such tools should not dominate the processes for creating diverse teams.

Action: Leaders should create innovation teams with mixed backgrounds, styles and cultures, using formal tools (e.g., Myers Briggs Type Indicators) to confirm that team members' combined styles will deliver the desired balance for each situation.

9. Recognize and manage the differences between internal and external innovation: Enterprises must respond to ceaseless environmental (external) innovation in their market, industry or business segments to maintain competitive parity. Additionally, enterprise (internal) innovation is needed to continually reinvent processes, products, services, technologies, organizations and management styles. This internal innovation is required to gain competitive advantage. Enterprises must develop skills and processes and must allocate resources to support both types of innovation.

Action: Leaders must set clear objectives and resources to manage both environmental and enterprise innovation.

10. Understand the risk/reward model of incremental vs. breakthrough innovation: Enterprises must recognize that incremental innovation and breakthrough innovation are very different risk/reward models (see "Case Study of Innovation Risks" CS-15-0108). The "hit rate" with incremental innovation is certainly higher than the hit rate with very innovative projects (one in 10 vs. one in 1,000). Also breakthrough innovation requires long-term high-risk investment and fast rewards are unlikely. The current economic climate, which prizes fast returns and is risk averse, will be a major inhibitor to breakthrough innovation projects during 2002 and possibly beyond.

Action: Leaders must set risk and time scale expectations according to the innovation target.

11. Formalize use of knowledge management in innovation: Innovation requires activities that elicit a steady stream of high-potential ideas, develop them and implement them within the context of enterprise business principles and strategic direction. Knowledge management supports both incremental and breakthrough innovation:

- By codifying an employee's experience, judgment and insight into explicit form, it becomes usable by others. Access to the ideas and innovations of others stimulates employees to broaden, extend and rethink their own tacit knowledge and to create or innovate.
- Collaborative interaction and sharing of tacit knowledge adds judgment, experience and insight to ideas, thus grounding and validating them within the strategy and context of the enterprise.

Action: Enterprises should formalize knowledge management to generate and validate ideas.

Further Gartner research on innovation and knowledge management includes:

"Innovation and KM: Early Lessons Learned" (SPA-08-3746)

"Can Your Leadership Deliver Knowledge Work Success?" (SPA-12-6984)

"The Disruptive Impact of Knowledge Work: What Is It?" (SPA-11-1871)

"The Ingredients of Innovation" (TG-13-5833)

"Reaping Value From Knowledge and Innovation" (SPA-12-8169)

"The Knowledge Workplace" (K-10-3622)

"KM Case Study: Innovation Value Chain at Sonera" (CS-13-6111)

"Risk Management for Innovation" (TG-11-0969)

Bottom Line: Innovation management will become a required enterprise competency by 2005. Adopting and applying the best practices of early adopters can ensure a more successful implementation. CEOs, CIOs and other leaders of knowledge-focused enterprises should apply these best practices to their innovation programs; failure to do so may slow the implementation of innovation and undermine business competitiveness.