

Commercializing Innovation: from Incremental to Monumental

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This is one of a continuing research series that has been bringing senior managers and executives from diverse sectors together to uncover the best practices in managing innovation.

Executive Summary

Leading innovator organizations cover the full spectrum of innovation, from incremental to monumental, and bring this thinking to all their business processes on a continual basis. Organization culture and values are critical enablers of innovation on this scale, and leaders continue to seek the right balance in structure and control that will liberate the talents of individuals across the enterprise. Both organizations and individuals need courage to innovate; having small successes builds the courage needed to take on larger challenges.

Enhancing the customer experience or enabling the core business strategy have displaced cost reduction as the primary drivers for new technology investment. This focus on customer experience is creating new demands on organizational design and internal role relationships.

Executives are seeking to understand networks, as well as how to leverage internal and external networks. Changing customer behavior in social networks and the resulting rapid feedback has increased visibility of organizational innovations and the need for rapid response. The role of internal networks for knowledge, people and ideas appears to offer the potential to improve organizational effectiveness.

Google, Toyota, Procter & Gamble, Umpqua Bank and General Electric were cited as leaders in harnessing these various elements of innovation.

Best practices in commercializing innovation included over-communicating by executives, encouraging “cross-pollination” across organization functions and across global divisions; having systems to harvest ideas, striving for greater clarity in cross-functional work to reduce tension; and seeking external partners to cross barriers in skills, market access and infrastructure. Markets with less infrastructure may be ripe soil for innovative technologies to take root.

"The keys of innovation: people, process, patience and partners."

The innovation landscape

Consider a landscape for innovation where the north-south dimension relates to the magnitude of the innovations, and the east-west dimension relates to the frequency of the innovations. Our executive panel reserved their highest praise for those organizations that seem best able to cover this landscape in their operations: they innovate in large and small ways, and they do it continually.

A key distinction that is emerging, and visible from the stories our panelists tell, is the difference between organizations that innovate only as part of a major change initiative, and those that bring innovation into the core fabric of the organization's culture.

Many of today's leaders are seeking ways to develop organization cultures and structures that can enable this embrace of the entire landscape; for them, the discussion of innovation best practices is linked at the core with organizational culture issues.

Building individual and organizational courage with small successes

Being innovative is frequently connected with cultural change in organizations, especially where there have been large environmental shifts that required a complete rethinking of strategy. Even where the pressure to change is high, the process can be fear-inducing.

Our panelists' experience of innovation is that it requires individual courage and organizational courage. Anything that can increase the availability of courage therefore becomes a positive enabler of innovation. For one panelist, creating team structures that increased conversations across traditional organizational silos increased courage, and enabled the organization to extend its grasp on innovation:

"It has increased our courage. It's increased the ability for people to sit and talk together and get outside the usual lines of 'what can we do about this' or 'what's the opportunity look like.' ... We used to go by the book a lot. We've thrown the book out now and we ... are in the process of redefining who we are. So we encourage innovation in everything. Whether it's in the warehouse, whether it's the traffic flow of the forklift driver. Whatever it is, we are looking for the better way to do it."

“Our industry has changed at such an incredibly rapid pace that I feel that innovation and the ability to adapt and change at the same pace as our business changes is a crucial skill for our organization.”

Google: Using the full spectrum, from incremental to monumental

Progress today builds courage in the organization to take on the challenges of tomorrow. This requires looking at the full spectrum of the planning horizon from near term to long term, as well as embracing the full spectrum of magnitude in innovation.

“Corporations have to think along the lines of incremental to monumental. That’s true for Google, a perfect example of a company that’s changing the paradigm. They don’t actually have a production version of Google. It actually changes every hour or every day.”

While is making incremental improvements continually, in real time, it is also working on developments three to five years in the future. Each incremental innovation and success helps build the organization’s ability to take on the monumental. Google’s approach may also help them be innovative in all areas of the enterprise, not just in the core business or in special project areas.

Toyota: Incrementalism with long horizon thinking

Toyota was cited as an example of a company that has exceptional patience in their innovations, combined with an ability to look and plan far into the future. At the same time, they are seen as masters of continuous improvement.

“Toyota have demonstrated in the last 30 to 40 years that they are absolutely the best at incremental innovation. The concept of kaizen, they improve their vehicles a little bit each year, and that gives them the courage to maintain the far looking out.”

Other observers have described Toyota as a company where the managerial work is not to make cars, but to improve the process of making cars – and even to improve the process of improvement. (*Fast Company, Dec 06-Jan 07*).

Managing the pace “crucial skill”

Increased rigor around measuring performance and evaluating investment results has ironically created something of a focus on tactical as opposed to strategic thinking, for many organizations. Too much focus on tactical thinking – meeting the immediate needs of the organization – is seen by executives as a potential hindrance to innovation.

“At the core, your culture helps define what the boundaries are; it makes you stronger....When you talk about General Electric, they’ve got some really core fundamental principles that have endured over all those years. When it gets really tough, good companies continue to survive.”

“Tactical won’t get you innovations. Strategic will get you innovations. You have to have a mind-set shift... We are going to think out to the extent we can, three or five years from now and be a little creative.”

Hay Group research was cited that compares companies seen as innovation leaders with their peers. Among the points raised in discussion:

- Innovation-leading companies reported they were more satisfied with the pace of change than their peers
- Innovation leaders are more satisfied with the way they manage the pace of innovation – focusing on a manageable number of priorities and initiatives
- Innovation leaders report higher levels of patience in being willing to wait for ideas to pay off

Whether the pace of innovation is actually faster than in the peer group companies, the leading organizations have made deliberate decisions about pace and focus, are able to stick with those decisions, and are largely satisfied with those decisions.

Keeping watch on the customer of the future

The issue of short versus long-term thinking also relates to watching how customers are evolving. Focusing too much on the “customer of today” means making your current numbers, but damages your future ability to compete.

“It’s a balancing act. [Today’s] bread and butter versus tomorrow’s bread and butter. Unless you have an understanding of how the customer of tomorrow is going to want to deal with you, you won’t have a customer tomorrow.”

Kodak and Motorola were cited as organizations that had experienced set-backs because of their failure to embrace new ideas, and their investment in old ideas. Top management are the people who have to force the organization to consider the environment, how things are changing and how customers are changing.

Technology: shift from cost-reduction to experience improvement

Having a strong alignment between the business strategy and the technology strategy is important to successful commercialization of innovation. In the past, the desire to adopt and implement new

"To commercialize innovation successfully, you need to think beyond your own company and you need to think: 'What kind of external partners do I need to foster innovation, make this innovation successful?'"

technology may have driven the business; few see this as the path to success now.

For decades, the drive to reduce costs by using technology created significant changes in industries such as banking; changes not always seen as desirable by customers. Although the cost savings were achieved, customer experience and loyalty are now a higher priority.

"We used to do innovation more for cutting costs. But we do things to our clients. The real change is we are doing this for our clients. We are trying to use innovation to find out what our clients want, what they need, versus saying we need to reduce our costs."

In the cost-cutting era, investment in new technologies, especially those designed to shift work to the customer, could be built on the cost-reduction case. The current strategy more often is to evaluate the impact on the customer, and use technology innovation more to meet customer needs.

Umpqua Bank: Innovative customer environments

Umpqua Bank, based in Portland, Oregon, was cited as an innovator in their approach to redesigning a branded customer environment. Umpqua has adopted some of the thinking used to create Starbucks as a "third place" by providing an enhanced lobby experience in branches where customers can relax, download music and drink coffee.

Working with design firm IDEO, Marriott has made changes to the in-room experience, and is now focusing on the guest lobby experience:

"Lobbies in hotels are like living rooms used to be. You cover the furniture with plastic and nobody can sit on it, but it looks nice. In fact, people would move the furniture around and then when they were done we would move it back because that's not how the designer laid it out."

"[IDEO have] done some amazing work for us in re-concepting how people use guest rooms; how people use technology in the guest rooms. Taking it beyond the heavenly bed to a much better in-room experience. And in particular, this lobby concept and the things we are doing in our lobbies, really taking what customers were already doing and then being innovative around how we design the lobby so it better meets their needs."

“For an innovation to fly, you need the right skills, the right culture, and the right structure all in one place. You need both the innovators and the executors, and they are often not in the same groups of people.

“So if you are an innovator, then you need to find a group that is the executor group and has the culture and the skill set to sustain that.”

Procter & Gamble: customer-centric innovation

Procter & Gamble (P&G) was cited by panelists as a strong example of driving innovation with business strategy and customer strategy. The innovation strategy is being led from the top of the organization, and panelists believe this is key to P&G’s success with such products as the Swiffer line. Collaboration across the organization, between laundry and personal care, resulted in the creation of Crest White Strips, was another example cited.

“One of the things P&G does is throw wholly disparate groups together to formulate new ideas.”

These dialogues can help the organization overcome the tendency toward stability and incrementalism that tends to be what was called “the order of the day” in large corporations.

Linking geophysics and health care

Bringing organizations and people with complementary knowledge, executional skills or infrastructure together is another successful strategy for commercializing innovation.

One panelist related their experience in taking well-developed knowledge in geophysics and transporting it into health care. The use of sound waves in geophysics, and advanced interpreting technologies for those sound waves are much better established than in health-care imaging. The commercialization process brings together a small company in Russia with a larger U.S. partner with the scale and infrastructure needed to bring the new innovation to market.

“Analyzing the data from ultrasonic sounding is actually most deeply developing the geophysical area because the last 50 years they have constantly enhanced the method of collecting the data to find oil deposits. ... We have great expertise in this, processing the data for Earth sounds, and we just applied it to process the data of ultrasound with very good results.”

For smaller enterprises, seeking external partners with complementary skills and resources is a faster, less risky approach than attempting to build all the needed resources in house.

Working with external partners, even competitors

Instead of limiting the organization to inventions from inside the company, or products created inside an industry, vertical innovation

"It doesn't matter what industry you are in, a customer will feedback very quickly negatively or positively about their experience when you're trying to commercialize a new innovation at whatever level. They'll come back incredibly quickly.

"The customer expectation is so fast, and it goes way beyond empowerment."

can be fostered by working with external partners, sometimes even competitors.

One panelist related how an investigation into whether their own product was infringing on a competitor's intellectual property led to a radical change in the business.

"We realized 'we are infringing' ...So we invited them in to talk about partnership. Two things came out of it. They wanted a suite of our products for continuing their own R&D. But at the same time, the agreements as it stands right now is that we would stop infringing on their business (and) they would allow us to manufacture their products.

"We also focused on our business. We said, 'let's not go in this direction, we are only going to go in that direction.'" And part of that focus is now turned around to where we think it might be a really good change."

Rapid customer feedback requires rapid response

With the increasing role of service industries in the economy, the ability to deliver consistently is critical to success, and depends on having well-organized people and processes.

Customer expectations are high and adapting rapidly. With the rise of blogs, in particular, feedback from customers is also very rapid. This customer context is one of the forces driving innovation. But it also makes commercializing innovation a challenge in execution because the company does not get many chances to make mistakes. The organization needs to be able to respond very rapidly under these circumstances.

"In the service industry, because service and manufacturing happens at the same time, the delivery and the way the customer experiences it, the piece on how the work gets done is so critical."

Networking: Social and organizational

Some panelists in this discussion are following the emergence of social networking technologies with great interest. P&G was again cited for its ability to successfully adopt and work with new marketing approaches.

"If you look at what they've done in social networking, how some of the new products are launched in the market, where

“There is this belief out there that only two to three per cent of people actually have good ideas or are innovative and creative. The reality is...that there are creative ideas from a whole bunch of different people.”

through word-of-mouth advertising and blogs that they put up quite successfully which gave them instant and cost-effective feedback from consumers on what they thought about a new product.”

Successful organizations are now seeking to understand more about networking in all its dimensions: social networks, knowledge networks and organizational networks.

Advertising agency Diesel, recently relaunched under the name Sid Lee, was cited as an interesting example of developing a bohemian culture that feels like a network where creative thinking can flourish.

“What sets the company apart is the way its partners envisage the firm – a sort of bohemian community of artists, a company that employs architects alongside writers and web designers, and encourages employees to pursue personal artistic goals on company time.” (The Globe and Mail, Nov. 20, 2006)

One panelist wondered about the fundamental values that relate to this type of thinking, and how these values might be relevant for the corporate world.

Core values at General Electric drive innovation

General Electric is vastly changed from when it started in the late 19th century. But it has core values that are central to its way of operating and that help it innovate without a crisis.

While many organizations change in response to a crisis, the best are able to build a culture of performance that doesn't require cycling between stasis and crisis.

Liberating the talent in the organization

The chief dynamic of organization development is the tension between throwing out the rule book to become more innovative, versus greater clarity in roles and accountabilities to reduce organizational tension and provide clear scope for innovation.

“How do we actually set up organizations and design them in such a way that it actually frees people up, liberates them to apply their full capabilities and actually be innovative and creative?”

Executives are reaching for the right balance between having people too structured “completely nailed down or pushed down in an unhealthy way” versus “everybody can do whatever they want.”

“The key piece is customer insight... We are quite scientific about return on investment and managing the risk of new innovation. It all comes off as having a better understanding of what the customer is doing or is likely to do.”

They are also reaching for a more networked organization structure that can help people transfer learning, bring fresh thinking into problems and overcome traditional silos.

From *what* to *how*: Define the real work

Innovating in customer experience requires a more holistic view of the business strategy and the customer, which creates challenges for organizations that have functioned well in silos.

“There is a shift from organizations traditionally focusing on what we produce to sell, what our product is, and what our service is. ... [Now] it is more about how does the customer experience us, and a lot of folks are selling to the how and not just focusing on the what. That has huge implications for folks working across traditional silos and boundaries.”

Leaders are seeking new organizational architectures to enable this vision. The operating models of many businesses still have not fully accommodated the changes brought by the new internet technologies. The mature areas of the business, such as marketing, technology and sales, have well-defined roles and accountabilities compared to the e-business and e-commerce groups.

“It’s very difficult for the functional areas of the business to understand what that [e-business] group does.”

What can appear to be resistance to change is often more aptly described as a lack of understanding or clarity about how organizational pieces will fit together.

Best practices: What helps?

Communicate to start the “brush fire”

Leaders need to over-communicate the need for change, and new approaches. Communication needs to be persistent and visible. One panelist told a story of hanging signs throughout the office to get people to start thinking seriously about an internet strategy, during the early days of the web. Another said “the brush fire” of change didn’t begin until senior leaders showed they were adopting the change, and then communicated consistently and continually about the change.

As organizations become more effective globally, the pattern of communication starts to shift from one where the communication flow is from the centre to the spokes, to more of a network pattern.

"It used to be that a smart technologist would say, 'I can see in a couple of years we might need this, and I'm going to do just a little bit more code right now while I'm in there and its going to enable us to be much more flexible in the future.' Now it's 'just give me what I want.'"

Facilitating this flow of information and conversation is important to maintaining a dynamic state of "cross-pollination" in the business.

Build systems to harvest ideas

Once individual initiative is unleashed, the creative thinking in an organization can blossom. The challenge then becomes capturing, evaluating and sustaining the innovative thinking.

Redesign process along with culture

Work processes go hand-in-hand with organizational culture. As one experienced project leader put it:

"If you can process redesign along with change in corporate culture you can really drive innovation."

Start conversations past the one-year planning cycle

Businesses typically operate on a short-term planning cycle of 12 months, and this environment doesn't create a dialogue among executives about their longer-term strategies and plans. The suggestion from one panelist: after the formal planning cycle is wrapped, provide opportunities for executives across the business to sit down and discuss their longer-term ideas.

Use project management tools for role clarity

Managers in the day-to-day organizational environment need to become better at describing what the work is, and describing accountabilities, in order to give people both the mandate and appropriate scope for innovation. Much of the work in the modern organization is highly abstract and difficult to define, or in some cases entirely new. Managers need to create the time to step back from their own deliverables and define the goals and the roles clearly for others.

"Describing work that is about how is much harder than describing work that is about what because it's a lot less concrete. ... And managing in the white space between things is much, much more abstract, and much harder to describe."

Methodologies and tools developed for the project management discipline can help an organization maintain greater clarity about goals and roles. A RASCI chart is one such tool. By working through accountabilities and overlaps in roles, tension is reduced and people can work more effectively together, clear in knowing when they will be consulted, and who is accountable.

“Ask a different question. As opposed to ‘who am I going to sell my product to? Ask: ‘what do I know about my customer’s business that they don’t know’? And how can I add value to that?”

“It’s a key advantage to talking to clients and understanding their industry as well as they do. We hire from the industry specifically to make sure we understand them.”

Be realistic about resourcing

For many, the challenge of management is figuring out how to run the business and change the business at the same time. Providing adequate resources to do this is crucial to success.

One panelist told us about interviewing executives at the conclusion of major change initiatives. The executives consistently reported learning they had “completely underestimated the amount of time and the amount of resources it would take” to make the changes.

Seek external partners to support commercialization

One story told by a member of the Russian delegation was of the challenge of connecting with large corporations. Their software creates dimensional models of molecules that can be used in pharmaceutical research to maximize the effectiveness of real-world testing.

“We have proven our technology is superior compared to branded competitors. ...How can we, a small company, make them know that this product is really better and they can use it to save their money and help them in their business? You have to break through this big structure and big bureaucracy. This is our challenge.”

The current strategy for this organization is to work through third-party chemical suppliers to the pharmaceutical industry, and help them confirm that their compounds meet specific activity requirements. They are also seeking partnerships with complementary software suppliers to this industry.

Find a single lead adopter or lead segment

A single lead user can often help commercialize an innovation, especially where they can gain an early advantage or assist in finalizing the development of the product to meet their specific needs.

Another panelist told of breaking into the global market for educational equipment, by using the university sector as a platform to sell to global corporations. By partnering with a university professor before the product was in finished form, they were able to gain access to his network, and build out from there.

“We partnered with a university professor who actually developed the product. Then we sold that to all the universities who were doing research. ...Through personal connections we were able to make all these sales between the group of

professors we worked with originally on the product and all of their peers. And suddenly we had this established customer base around the world.”

Target markets with less infrastructure

Markets with well-established infrastructures may resist certain new technologies. The cell-phone market in Canada, which has lower penetration than other countries, was cited as a good example of this. Markets that are less developed may be more receptive to new technology, because they are not trying to change or displace any existing participants.

“My own experience in countries in the former Soviet Union in the late 90s ... [was] being amazed by the adoption of technology particularly cell phones. People were paying their parking meters on cell phones and it was because of the lack of infrastructure that they weren't encumbered by that, they could just leap frog much further ahead.”

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- The Glasgow Group
- PostStone

For more information about the Business Pulse Project on Innovation, please contact Alan Middleton, PhD. or Elaine Gutmacher at Schulich Executive Education or any of the research partners listed above.

Research conducted Nov. 21, 2006.

Resources mentioned by panelists included:

Diesel gets a new moniker: Artsy Montreal ad agency reinvents itself as Sid Lee, by Keith McArthur, The Globe and Mail, Nov. 20, 2006.

No Satisfaction: What drives Toyota? The presumption of imperfection – and a distinctly American refusal to accept it, by Charles Fishman, Fast Company, Dec 2006 – Jan 2007.

RASCI (sometimes called RACI) charts define the roles of individuals with respect to activities. The acronym stands for Responsible, Accountable, Support, Consult, Inform.

General Electric: www.ge.com

IDEO: www.ideo.com

Procter & Gamble: www.pg.com

Sid Lee: www.sidlee.com/

Toyota: www.toyota.co.jp/en/

Umpqua Bank: www.umpquabank.com