

Innovation Survey: Next Generation Strategies for Growth

Productivity Inc. and
The Ohio State University,
Fisher College of Business' Center
for Operational Excellence



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CONTENTS

Introduction.....	2
Executive Summary.....	3
Survey Responses.....	4
I. Demographics.....	5
II. Improvement / Operational Excellence Profile.....	6
III. Innovation.....	12
IV. Feedback on Learning Opportunities and Needs.....	24
Key Insights and Analysis.....	26
Appendix: Survey Instrument	31
About the Sponsors.....	35

INTRODUCTION

In late 2010, Productivity Inc., in cooperation with The Ohio State University, Fisher College of Business' Center for Operational Excellence (COE), conducted selective, in-depth interviews with industry managers and executives engaged primarily in operations and operational excellence. Our primary objective was to learn more about their perspectives on innovation and their companies' positioning of innovation strategies, especially in relation to ongoing business improvement or "operational excellence" initiatives.

In this report, we provide specifics on the responses to the survey questions, share broader insights, and suggest areas that managers and executives (as well as Productivity and the COE) can continue to explore. The aim is certainly not to draw conclusions about overall practices or industry trends from this small and select group, but to stimulate further thought, consideration, and sharing of perspectives.

We encourage you to advance and articulate your own ideas about innovation by discussing this report with others in your organization. We also welcome your feedback, critiques, questions, and comments, and look forward to continuing the discussion.

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EXECUTIVE SUMMARY

Innovation is one of the most commonly hailed business initiatives in recent years, as companies regroup to address global challenges and reposition for growth. We explored the connections between improvement, growth, innovation, and next generation strategies through interviews with a select group of executives and managers involved in operational excellence and innovation. The results yielded a number of key findings:

- **Definitions of innovation** commonly center on the concepts of effecting major change and creating new value, but managers also have distinctly different ideas about what it means more specifically—its scope, how it applies in different contexts, how it resonates with improvement, and who has the capability to innovate. Exploring these different notions in-depth to develop a nuanced understanding of innovation that makes sense for a specific organization appears to be an essential step for companies seeking to enhance their innovation capabilities.
- Opportunities exist to **better link improvement and innovation strategies**, through cross-functional activities, cross-application of skill-sets, recognizing and working to address common concerns about changing corporate culture, and connecting operational excellence with growth strategies.
- **Engaging top leadership** is essential to improvement and innovation, and especially to balancing the needs of the core business with those of new areas of growth that potentially compete with it. Gaps in leadership support, employee development, and organizational structures need to be evaluated and addressed.
- **Knowledge management systems** are important for both improvement and innovation, but organizations are still struggling to find effective systems that are user-friendly and provide information in a useful context. Effective management processes are also lacking.
- **Innovation skill-sets** may be applicable in operational environments if pragmatically and strategically applied, and vice versa. Operational leaders and staff have had little formal exposure to specific innovation concepts and methodologies.
- Innovation at the level of the **business model** was mentioned by a minority of participants, far less than product and service development or process innovation. Focus at this level could be an ideal way to get beyond any functional silos of product development and operational improvement.
- Most respondents are not aware of any efforts to **systematize innovation processes** or enhance innovation capabilities in their companies. But several are working on just this, using a variety of strategies, from formal corporate-level innovation councils and processes to organic networks of employees working on innovative projects.

The balance of this report details the responses to the survey questions, provides further analysis and discussion of insights, and lists some questions for ongoing consideration.

SURVEY RESPONSES

Responses to the survey were gathered in 30- to 60-minute phone interviews with 27 managers and executives from 24 different organizations in the U.S. and Europe. Nearly all of the organizations (22) were for-profit companies; the remaining two were government/non-profit entities.

Interviews were guided by a series of open-ended questions on improvement and innovation strategies (see Appendix for the full survey instrument). The participants were generous with their time, and provided interesting and thoughtful insights. It is worth studying their statements, which are quoted liberally throughout this report—especially in the section on innovation. Quotations have been reconstituted from detailed notes taken during interviews; wording has been modified slightly to ensure the anonymity of the participants.

Part I of this section provides a basic demographic profile of the respondents, including job titles, roles, business sectors, and organizational size.

Part II covers background information on operational excellence* initiatives, including where in the organization ownership for it resides; level of maturity; how improvement project portfolios are selected and managed; the extent to which customers or suppliers are involved in projects; the perceived scope and limits of improvement strategies; and next steps in organizational efforts.

In Part III, we get into the area of innovation, exploring how it is defined; where the ultimate responsibility for it rests; the relationship between innovation and improvement; how ideas and knowledge are captured and shared; the need for developing new skills; and current and future potential for systematizing innovation.

Part IV discusses the comparative rankings of a series of potential learning offerings.

* The term “operational excellence” is used throughout this report to mean overall improvement initiative or strategy, whether lean, six sigma, a combination, or another variant of continuous improvement.

I. Demographics

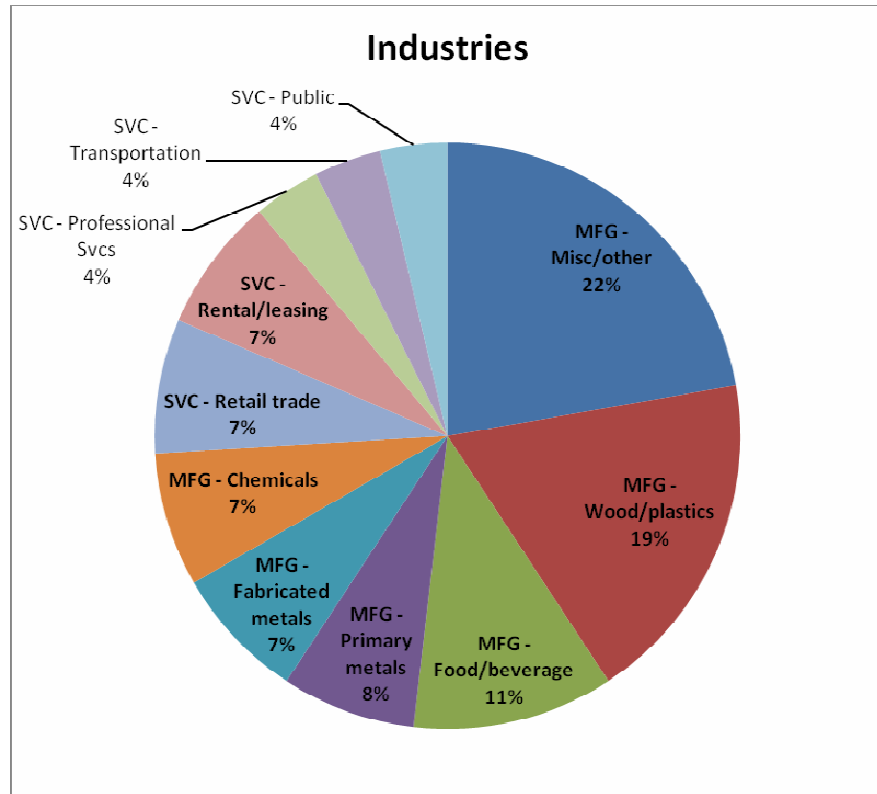
I. 1) *Business sectors*

Roughly 25% of the survey participants work in service industries (including public administration), and the balance in manufacturing.

Manufacturing respondents (20 individuals from 18 organizations) work in varied industries spanning wood and plastics products, food and beverages, chemicals, primary and fabricated metals, electronic components, power systems, and miscellaneous consumer and industrial goods.

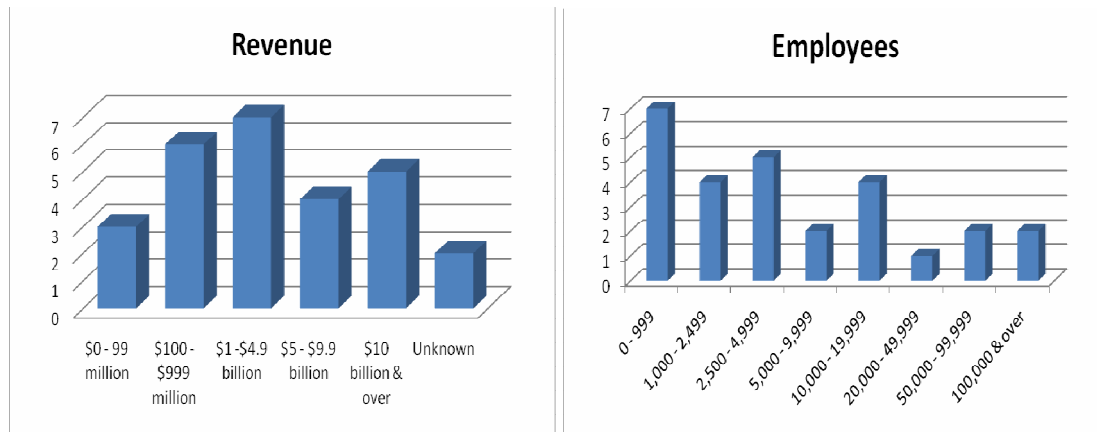
Service industries (represented by 7 managers in 6 organizations)

include rental/leasing, retail trade, professional services, transportation, and public administration.



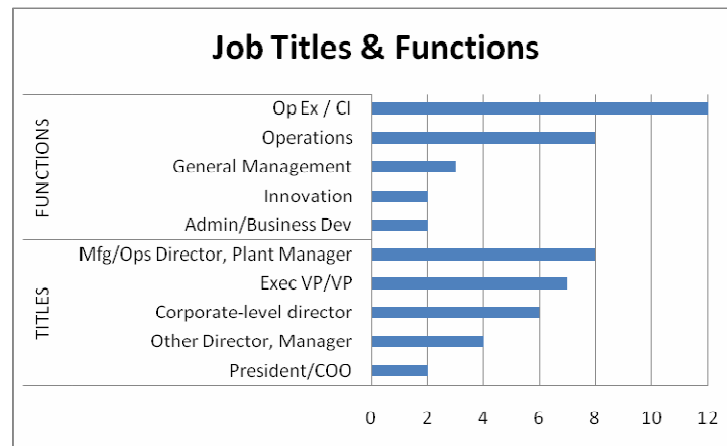
I. 2) *Business size*

The organizations range in size from less than 100 to more than 100,000 employees, with revenues of under \$100 million to \$50 billion. About 60% of the respondents (16) are from companies with less than 5,000 employees, and the same proportion from companies with revenues under \$5 billion. Of those, seven people work in organizations with less than 1,000 employees and nine have revenues under \$1 billion.



I. 3-4) Job titles and functions

Participants' job titles extend from President/COO through various levels of senior and middle management. Almost half (12) hold functional titles in the area of operational excellence or continuous improvement. Other functions include operations management, manufacturing management, business development, and innovation.

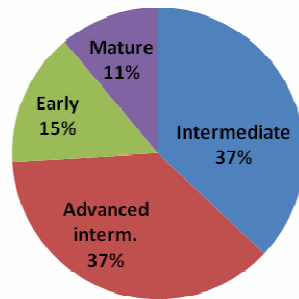


II. Improvement/Operational Excellence Profile

II. 1) and 2) Maturity level and respondent involvement with operational excellence

The majority of respondents described their organizations to be at intermediate stages in the development and deployment of operational excellence strategies. The classifications shown in the following chart are rough, based on the interviewees' own assessments of

Operational Excellence Maturity



extent and depth of engagement across the organization and its various functions, degree of benefits achieved, and years of implementation experience.[†]

Half described their initiatives as a combination of lean and six sigma, and half said that lean is the primary improvement strategy. For most,

concentrated efforts at deployment have spanned the last three to five years; the least-experienced organizations became seriously involved less than two years ago; and the most-experienced have been on the journey for ten or more years.

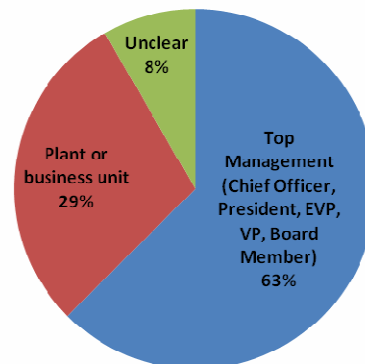
One recurring theme stands out: a history of a false start or setback, resulting in significant reassessment and realignment. In most cases, that required backing up to basic concepts, with a clearer intent and strategy, and sometimes doing that under new leadership.

About 70% of the participants (19) have some direct involvement in operational excellence efforts, either through personal leadership and facilitation of lean or six sigma initiatives, or by actively guiding strategy and deployment. The rest (8) are involved at a higher level of the organization or in a function that interacts with or indirectly drives improvement efforts.

II. 3) OE owner within the organization

At more than half of the organizations, the ultimate owners of operational excellence were said to be high-level managers—a chief officer; company or division president; or VP, EVP or executive board member. For about 30%, ownership is seen as residing with a plant or business unit manager or at other levels within each business unit. And for two respondents, ownership is unclear.

OE Owner

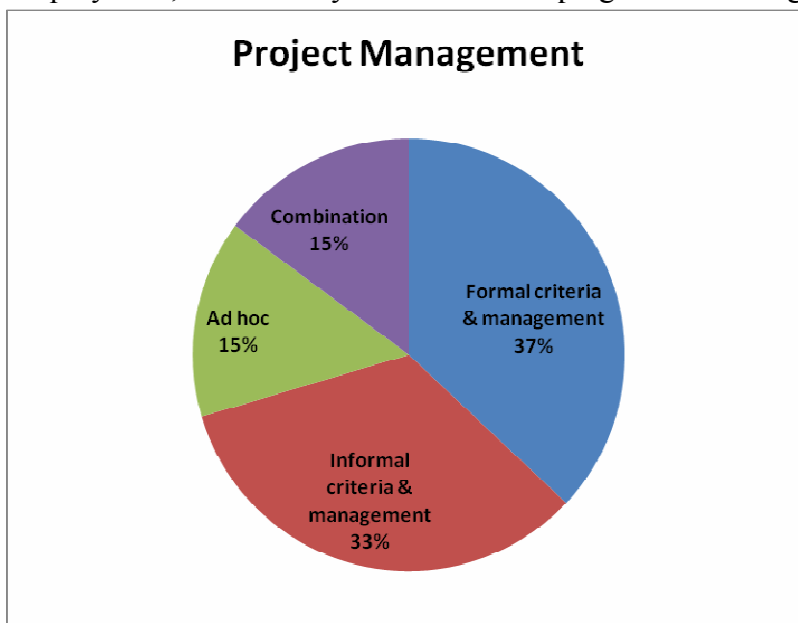


[†] Note: Number of years of implementation experience does not necessarily correlate with assessment of maturity level.

II. 4) Improvement project criteria and management

Seventy percent of respondents reported using formal or informal criteria for prioritizing improvement projects, in tandem with a system for managing progress and monitoring results (through databases, review meetings, or other means). Formal, structured criteria are used about as frequently as less formal systems.

Formal strategic criteria encompass metrics such as productivity, efficiency or cost reduction measures; formalized key performance indicators; and hoshin, policy deployment, or similar systems for developing and cascading strategic goals and



objectives. Informal criteria are similar in nature but less standardized or less formally developed and managed, including measures like “opportunity gaps” as well as criteria that change based on individual client needs.

Management systems consist of an array of elements and mechanisms—including databases and project management software;

A3 reports for managing plans; a “project hopper managed by a global staff member”; and project charters, formal meetings, audits, and reviews.

Participants working with an ad hoc means of setting priorities—that is, no real system—described specific initiatives as being driven by “pain points,” “squeaky wheels,” “fire-fighting,” or requests from individual managers who see benefits accruing in others’ areas and want some attention focused on their own domains. Several respondents reported a combination of formal/informal methods and ad hoc ones.

Regardless of the system in use, many participants see improvement project portfolio management as an area that poses some challenges in effective execution.

II. 5) Interactions with customers and suppliers

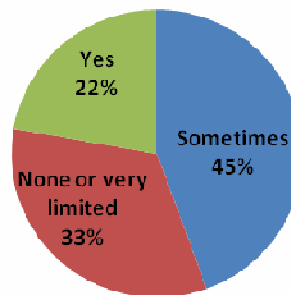
Only about 20% of participants (6) said that people in their organization who take part in improvement projects have any significant interaction with external customers or suppliers. Service organizations, where “production” employees are in contact with customers almost by definition, show the most interaction. Those who said there is “sometimes” interaction described it as direct involvement, but generally on a small proportion of projects.

Most of those reporting limited or no interaction with customers did say that data on customer feedback and requirements is provided from another part of the organization, such as sales or customer service.

Manufacturing organizations

reported more direct interaction with external suppliers than with external customers.

Improvement Team Interaction With External Customers & Suppliers

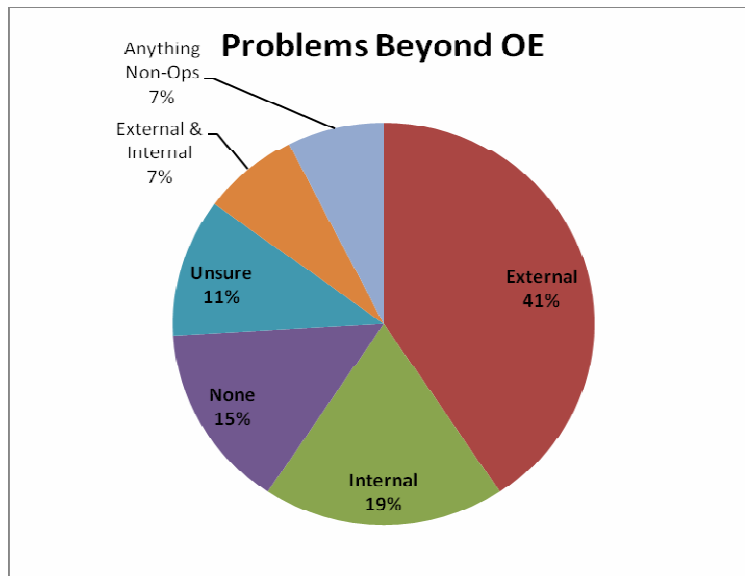


II. 6) Problems that cannot be addressed by improvement initiatives

About 40% of the participants (11) cited external issues as the primary problems they face that fall beyond the scope or capability of their improvement initiatives. The issues most commonly named were

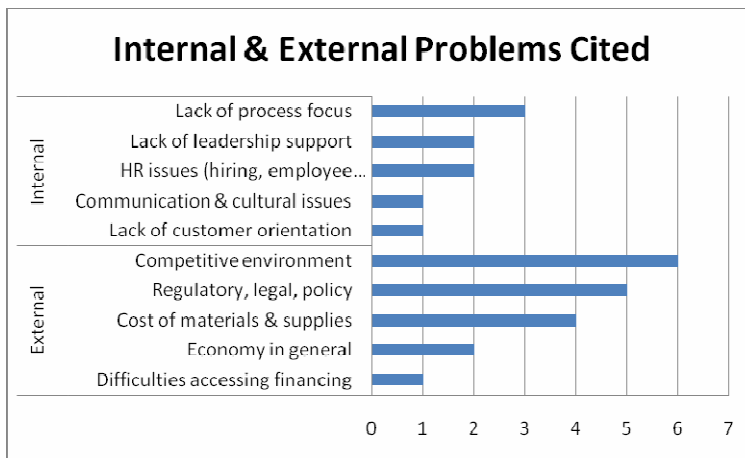
- **Competitive environment:** industry consolidation, low-cost competitors, excess global manufacturing capacity, general instability causing flux and disruption for employee teams, and disruptive forces changing the landscape on cost or delivery time—forces that require a radical transformation exceeding the scope of improvement capabilities.
- **Regulatory, legal, or policy** issues.
- **Cost and delivery of commodities** or supplies

With somewhat surprising frequency, internal factors were raised as obstacles that operational excellence cannot address. These include problems such as achieving the enlightenment and support of leadership, hiring and developing the right talent, and sustaining a true process focus.



A few find operational excellence adaptable and comprehensive, and do not see any issues falling outside the scope of improvement:

“Lean can solve all problems, even those outside the business. I don’t see anything that can’t be addressed by something we’re doing inside; it depends on how we perceive the problem.”



Conversely, a couple of respondents conveyed that anything falling outside operational functions—including anything truly strategic—is beyond the reach of improvement initiatives to address.

II. 7) Next steps in improvement

When discussing what comes next in the ongoing development of operational excellence at each organization, the most popular response by far was

- Continued expansion of efforts to educate and involve all employees and “embed” or “ingrain” the philosophy in their organizational culture.

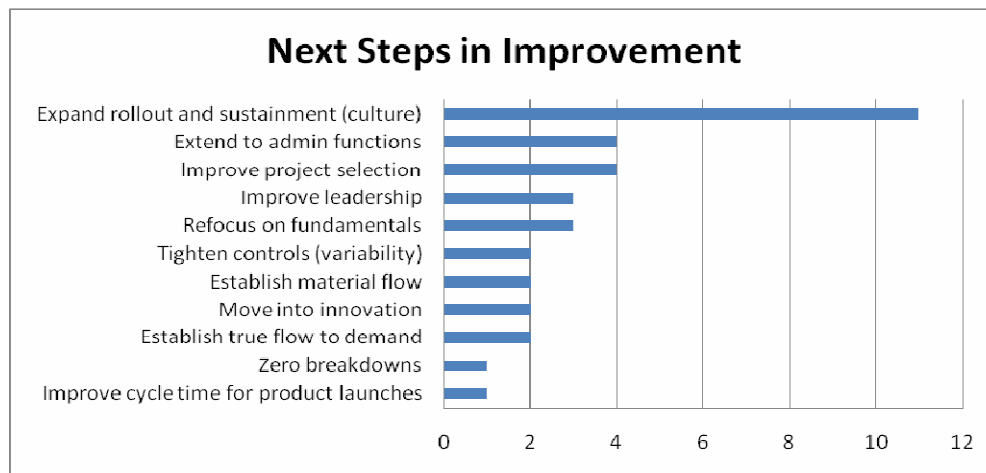
This effort to engage the organization more deeply was cited by nearly half the respondents, with no apparent correlation to their organization’s maturity level. The next most frequently mentioned agenda items on the horizon include

- Involving administrative areas (IT, HR, finance).
- Improving project selection criteria and management processes.
- Refocusing on disciplined execution of fundamental tools and skills.

- Broadening leadership skills at various levels across the organization, particularly in the context of developing a deeper understanding of how to apply improvement tools in context.

Two respondents said that part of their upcoming agenda included

- Moving into innovation.



II. 8) Relationship between waste elimination and growth

Twenty respondents—about 75%—cited a strong positive connection between waste elimination and growth. Some participants asserted that to be almost absolute. But many qualified the connection, saying that although waste elimination might not result directly in growth, they believe it fosters, propels, or supports growth by freeing capacity, improving price-competitiveness, and increasing opportunity:

"The growth is there if we can free the capacity and the capital to go after it."

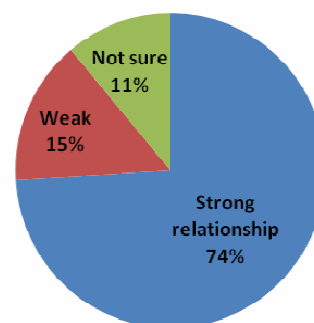
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"Lead time improvement will bring us more business. Customers already prefer our products over those of our competitors... the problem is on-time delivery."

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"It sets the stage for growth; it's a platform on which we can build."

Relationship Between Waste Elimination & Growth



The remainder of the respondents saw a weaker connection, and stated that waste elimination might improve the bottom line but not the top line (4), or were unsure about the connection for their organization (3).

III. Innovation

III. 1) Definition of innovation

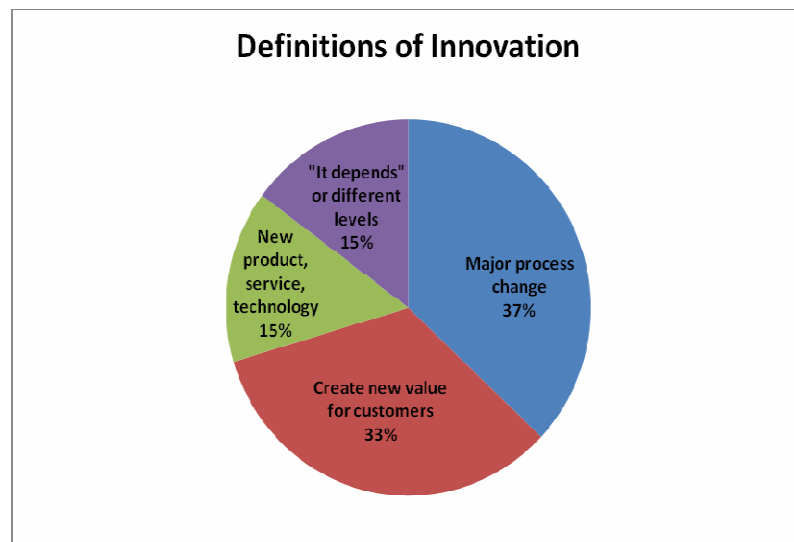
“Innovation” was generally defined by the respondents as major or radical change, differing in degree from improvement, which is seen as more incremental change. (See section III. 3—Relationship between improvement and innovation.)

While individual definitions overlap in their specifics, they fall under a few main themes. The primary two were

- Making major process changes.
- Creating new value for customers.

Different nuances emerge in definitions that focus on **process change**. The most general is “a paradigm

shift...a new way of doing something,” stated in other words as “finding different ways to achieve goals,” or “thinking out of the box to do things that have never been attempted before.” A more specific meaning, brought up in several interviews, centers on technical process change or redesign, for example, “finding the optimum process to make the best quality material right the first time, day in and day out.” Two respondents in this group defined innovation primarily as higher-level business change:



“Innovation is radical, structural change that is a metamorphosis of the business. We call it ‘transformation’ to distinguish it from ‘innovation,’ which is a key process that resides with engineering and is responsible for developing new products and services. Transformation focuses more on business-level processes.”

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“It involves how we do business as much as what we do with equipment and people. It’s ‘thought-process’ work—teaching people they can have an impact—how to bring ideas, work as a team. It’s about how people work and think, how they address improvements, redesigning job descriptions.”

Creating new value for customers is an equally common theme. Definitions in this category generally go beyond new product development to encompass a more holistic conception of value to customers and other stakeholders:

“Testing hypotheses and finding new or increased value in what’s been discovered. That is, a very broad definition, not limited to product development.”



“Successfully introducing new or improved products, processes, and business strategies to create new value for our customers and our companies.”



“Creating value for customers to grow top line revenues through creation and deployment of new and enhanced offerings.”



“The creation of different products and packaging that provide customer value and sustain business results.”

A smaller group of respondents defined innovation primarily as **new product or service development**:

“Creating new products or services that generate revenues that otherwise would not have been realized.”



“From the company perspective—when you talk about the word ‘innovation’ it means product development.”

And, several participants said the definition of innovation depends on the scope and business context:

“Innovation comes in many forms.

—New discoveries, relying on creativity resulting from a combination of many factors: human aspects, technology, background knowledge, understanding of the market;

—Finding new ways of working, focusing on the customer;

—Designing new infrastructure and buildings with operational excellence in mind;

—Strategic innovation—a transformational leap, something we haven’t done before that will provide a competitive edge strategically. I don’t think this level exists at my company. Typically approaches at this level are mergers and acquisitions.”



“The traditional view of innovation in manufacturing is definitely product development. But there are also different focuses for innovation, for example on the service side, new ways to process orders to commit to a maximum lead time for a customer. And bringing in things that are innovative to our industry, even though they may not be innovative in other industries.”

Several people saw innovation as recombining existing technology or methods in new ways, not just creating something completely new from scratch:

"Innovation is not invention...it's taking great ideas and putting them together in a new way to bring more value. Innovation is not R&D; it's looking at things differently."



"It's looking around and finding ideas working elsewhere, and making them work for us."

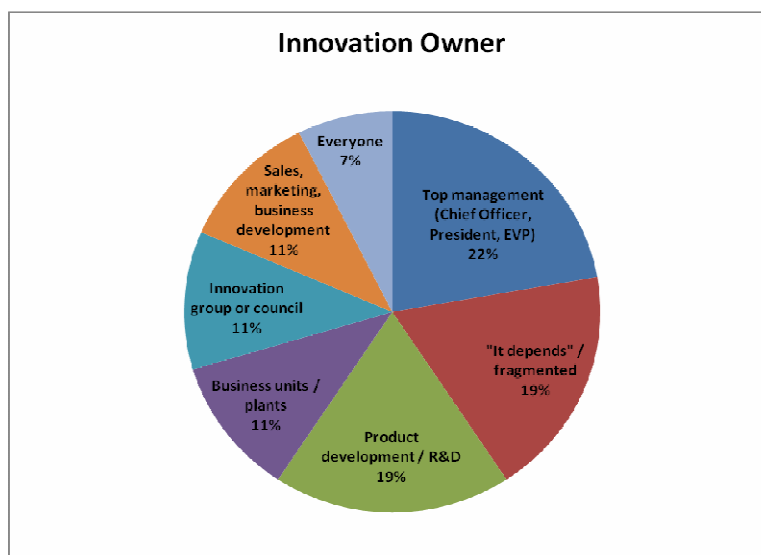


"Innovation...means taking things that exist now and putting them together in new ways to come out with a better process."

All in all, while some participants have a clear and refined definition of innovation—especially those who play a role in developing innovation as a corporate strategy—most people are still working to define exactly what it means for them and their business. As one senior manager stated, "Using the term 'innovation' is a challenge, because it means different things to different people."

III. 2) Responsibility for innovation

Responsibility for innovation was reported to reside in an array of positions and functions. The most frequently mentioned primary owner is top management, but in contrast to operational excellence, that high level of ownership was reported by fewer than a quarter of the respondents (6). Two responses come in as close seconds: a product development or R&D group (5); and fragmented ownership, or "it depends" (5) (that is, either it depends upon the context of the innovation—products, processes, or strategies—or it resides in pockets all over the organization).



Those who reported that there is no special innovation group, and that "everyone" or the "frontline" is primarily responsible for innovation, work in the smallest organizations (by revenue and by staff). Of the respondents that specifically mentioned an "innovation" group or council, two of three work in the largest organizations by revenue. There was no

clear delineation by industry sector, except that organizations where the primary owner is perceived to be product development or R&D are all manufacturing companies.

While fragmentation is seen as a problem in some organizations, widespread responsibility for innovation is not necessarily viewed as a hindrance. One respondent from a research-intensive manufacturing company said,

"No one person is responsible—and that's a good thing. It has been more of a bottom-up approach for innovation and continuous improvement, which is more successful than top-down. Everybody should be responsible for innovation. It goes back to creating the environment—creating innovation networks and enabling people with whatever tools they need to be able to add value. At the moment, innovation comes from building these networks."

To set the proper context, this senior director works in a large organization where he perceives top management to be steering improvement and innovation from a long-term perspective, and where a designated innovation group is charged with advancing overall methods to enhance innovation.

In another organization (also a large manufacturing organization), responsibility for innovation is perceived to be too fragmented, residing in pockets all over the organization. This company is in the process of establishing an overarching innovation group that will link consumer insight, market research, competitive intelligence, and product management globally in the same functional structure.

III. 3) Relationship between improvement and innovation

When discussing whether improvement and innovation are compatible and synergistic, or competing and drawing on different mindsets, the majority of respondents share a view of innovation and improvement as quite compatible, closely related, or going hand-in-hand.

"They are two sides of the same coin—it doesn't matter what you call it. It's a mindset of moving forward."



"My personal opinion is that they go hand-in-hand. If we start coming up with unique ways of delivering a value-added piece to a customer and it can't be executed, then it's useless."



"Innovation has a direct connection to improvement. In a service-related business, with intangible products, innovation and creativity must happen at breakneck speed and align closely with improvement."



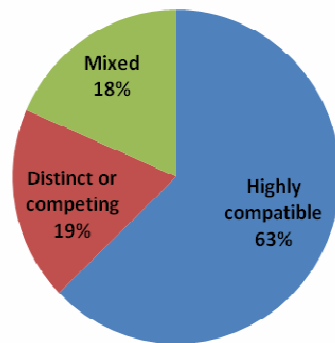
"In our view they are compatible. The key element is that the principles are articulated in a meaningful way to the respective parts of the organization. In the broadest scope they are or can be the same. Consider what we are really trying to do when we apply continuous improvement—"

increase the value in the value stream. If you do want to separate them, then they are at least synergistic, complementary.”



“They can be synergistic—there are parallels between a good stage-gate process and the six sigma/DMAIC process—ideating is about solving unmet customer needs. Some lean skill-sets may be of use in the innovation processes. And insights gained from operational problems can in turn feed back to the innovation process.”

Improvement-Innovation Relationship



A much smaller group see the relationship as mixed, with commonalities and synergies but also key differences. They raised questions about whether improvement and innovation reflect different mindsets:

“We are trying to get them to be synergistic and compatible, but people have to think

differently when thinking about a transformation—it’s systems thinking.”



“There is some synergy, but once you get into a certain track, your ‘innovation’ essentially becomes confined to that area, unless you’re picked for a cross-functional team. There is a tenuous connection; the more innovative thinkers do bring about the best improvements.”



“A little of both. Are innovation and improvement competing issues? They could be—on a plant level they would draw on a lot of the same resources (e.g., engineering support).”



“We have a tenured leadership group; as we have grown we have been trying to find people that are willing to test the waters and say, ‘Why do we do it this way?’ Innovation is where you have some ‘aha’ moments—breakthroughs—and we do not yet see that level coming out of front-line leaders.”



“CI is a step down from innovation—making incremental improvements to already-established processes. Innovation involves a different way of thinking, a different mindset. To some extent people start with a given mindset, and I am not sure the extent to which that can change.”

Another small group sees innovation as distinct from improvement, at least at present in their organization:

"I see it as a right-brain, left-brain distinction. Innovation is not as tactical; it's a clean-sheet activity. In development and deployment, the majority of the skill-sets common in the organization kick in. But idea generation through capture requires a different skill-set and mindset."

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"It depends on the level, but more than I'd like I think that they are separate here. But we're starting to recognize how they can be compatible. Improvement-type gains are somewhat visible and can inspire confidence to move on to higher-level changes."

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"Right now they are competing, but in future they need to be complementary and viewed holistically because both are important. Both may use the same resources, but one helps the other and vice versa. They must work in tandem. Of course, saying we want to integrate these initiatives and doing it are two different things. It will be difficult to do, but it is what we are aiming for."

A common thread runs through many responses, describing improvement as incremental change and innovation as more radical change or transformation:

"Perhaps there's a distinction between incremental improvement and one big change. For us, it's not highly differentiated. One is not more important than the other, it's a tactical difference."

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"Innovation is transformational. Improvement is incremental. Improvement is a small bit of innovation/creation. It's a question of scale."

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"Improvement is incremental; innovation is step change. Organizations need a healthy mixture of the two. I do not think innovation requires a different mindset, just a different objective and tool set."

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"Innovation is something you've never done before, something that is not familiar. Improvement is working on things that are really familiar to you, and doing them a little better, a little differently. They are degrees of difference."

III. 4) Idea capture and knowledge dissemination

Almost all respondents (23) said their organization has some system or mechanism in place for knowledge and/or idea sharing. These are split between primarily digital/online-based systems (13) and low-tech systems based on idea boards, meetings, and documentation (10). Not surprisingly the larger the company, the more likely a digital system is in use, but the type of system varies among small and mid-sized organizations. And in all cases, a variety of means are used to share information.

Examples of primarily low-tech systems include the following:

"We use a combination of idea boards, meetings, communication through our lean facilitator, and shared updates to procedures. We've also set up Ning as a cultural communication tool to foster friendly communication across locations. We're hoping to create an interactive, online idea board. Idea boards are great—but it takes a lot of time to capture ideas from all the locations."



"We do take lessons learned and pass them forward to new projects, but we're not big enough to have any formal means of capturing information via a database or online system."



"Each strategic team reports in quarterly and shares information with other teams. We have received some information about tools for more formal idea/knowledge sharing (Microsoft), but it is hard to imagine how a tool like that would work for us. We would have to scour through it for information."

Descriptions of mainly digital systems include these:

"We use Lotus Notes heavily. All improvement initiatives are captured there and accessible to everyone in the company. It serves as a knowledge base. Improvements are reported monthly from a financial standpoint. We also have a SharePoint® website that's used regularly; the organization is religious about it. It was not always that way, but we are better resourced and a little calmer now. We're also big on face-to-face meetings for sales, operations, best practices, and so on."



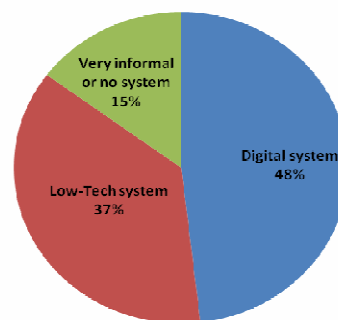
"We have a CI database. Anyone can submit improvements they've made. The improvements are categorized by products affected, functions affected, and concepts used—TPM, 5S, and so on—and quick summaries of ideas submitted are distributed on a regular basis. The information is sortable."



"Practices vary by territory, but the common medium is intranet, and the common content is procedures. Process libraries are shared in some territories. Ideas are captured through suggestion schemes that are difficult to maintain."

Very few people expressed real satisfaction with their current system. About half (13) cited it as a problem area, not where they want it to be, a known gap, or an area in which they need to improve and are eager to learn more about successful systems and best practices. Nine of the 13 are currently using some type of online system for sharing

Idea & Knowledge Management



information. They complained that their systems are cumbersome and user-unfriendly, and that they lack leadership support as well as management processes to ensure effective usage.

"We have enterprise-wide project-management-based tools as well as an intranet site for very basic knowledge management, but they require heavy investment of resources and are not user-friendly. Knowledge management would be a very generous term for what we do. It's a strategic decision. Many don't see the value of it, don't see the business case for recycling knowledge, but they do make the business case for putting in SAP. So, I am digging in to SAP at the moment to see how I can try to work with it."



"We have tried various things from time to time and nothing worked very well. We created an innovation catalog to capture new ideas, but it never got much use. Populating it was a forced march. One senior manager tried to create a system of best practices and would communicate regularly, but there was not much action and when he left it was not continued. We had an innovation action council for several years, with an objective of sharing information. It had some successes, but was not something that top management was invested in. It had a high-level agenda with high-level people, but since it did not include the top people they reported to, they did not salute it."



"We have multiple systems in place that are diffuse, used in pockets. One is for innovation and one for brand management. They are essentially one-off databases. We lack an integrated system, but beyond that, problems stem from lack of an established process for using the current systems. Without that, people lose interest."



"We used a Microsoft sharing tool, which didn't work for more than about a month for cross-unit sharing. There is sharing within units. Why did it stop so quickly? People get caught up in the day-to-day, and the underlying reasoning is, 'They (the other units) don't sign my paycheck.' It takes an exceptional individual to rise above that mentality and think about other parts of the company."

One manager discussed gaps between the extensive information that is collected and what really constitutes useful knowledge to be shared, as well as concerns about when it is collected:

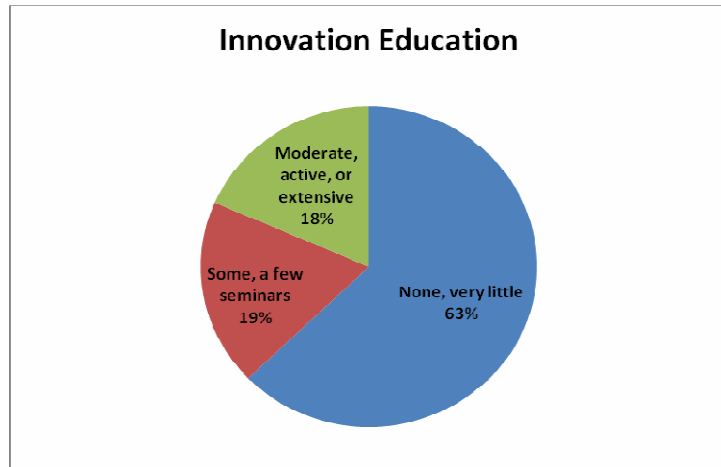
"This is our biggest challenge—the Holy Grail. One of the goals of our corporate innovation group is to develop systems to capture and share ideas. We collect an enormous amount of data, knowledge, and information, but we also lose an enormous amount because it is not captured ... or it is captured but is not accessible. For example, it's possible to gather a lot of detailed data, and even make it searchable, but the information is not kept in a format that allows you to gain much from it. What you really want to know is: What were they thinking? What was the hypothesis?—and then What is the data? We lose the context. It's a big problem in industry and in academia as well. Also, information is not captured continuously. It's done in a quantized fashion at the end of a process (for example, an "after-action" review). By that time, who really

knows anymore? We have used various mechanisms, for example SharePoint®, which was somewhat successful. For some projects there are one-page weekly summaries with links to a site where you can find the data. It's okay, but again, not what you really want."

III. 5) Education on innovation practices

Overall, participants have had little formal exposure to innovation theories and methodologies, and are unaware of any training going on in other parts of their organization. The most typical answer was "none," or a very minimal amount of exposure—primarily through a book or tangential learning as part of other education in engineering, change management, or improvement.

The few respondents who play a more specific role in innovation have had more exposure.



"Last week, I sat in on a training session with our sales group centered around the concept of Blue Ocean Strategy. At this point, these types of trainings are focused on how sales interacts with the end customer."

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"I came from an industry that was much better in this area. It's a mindset change to get people to think it's worthwhile."

III. 6) Potential benefits from incorporating innovation skill-sets

Most people think their organization would benefit from learning more about innovation and incorporating some new skills. For the most part, potential advantages were stated in very general terms:

"Only by realizing where you can go will you drive forward. Many people at different levels could be involved. I see it as a way to help people articulate where they want to go, and open up new options, identify solutions to problems."

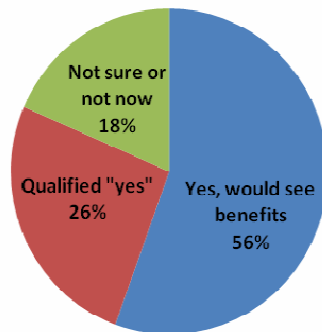
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"Any tools that can help you think beyond current boundaries would be of use in answering the question, 'How could we operate?'"

❖❖❖

"Innovation is the future lifeblood of the organization, so I personally see it as an imperative for long-term survival."

Benefits of Developing Innovation Skills



A considerable group expressed concerns, many of which related to the need to ensure practicality and applicability to their environment. Some expanded on these reservations, getting more specifically into areas such as whether innovation *can* be taught, who it is valuable to teach,

resistance to training, and difficulties with engaging leadership and ensuring their sustained support:

"I'm skeptical about innovation seminars. There are some fundamentals, but a whole lot that needs to be customized to the individual business. I'm also guarded about seminars that purport to teach people how to be innovative—some people are, some aren't. But if it's related to how to set up an organization, to drive it, that's more viable."

❖❖❖

"It needs to be managed at a certain level. Below the director level, I question the value. It depends on the scope of responsibility and level. It would not be worthwhile now, because of overlap and potential confusion with operational excellence areas.

❖❖❖

"It's not easy. Trying to train people or change their culture engenders resistance. How to do it is the problem. I suspect one key issue may be that the organizational rewards system doesn't provide appropriate rewards for these activities and learnings."

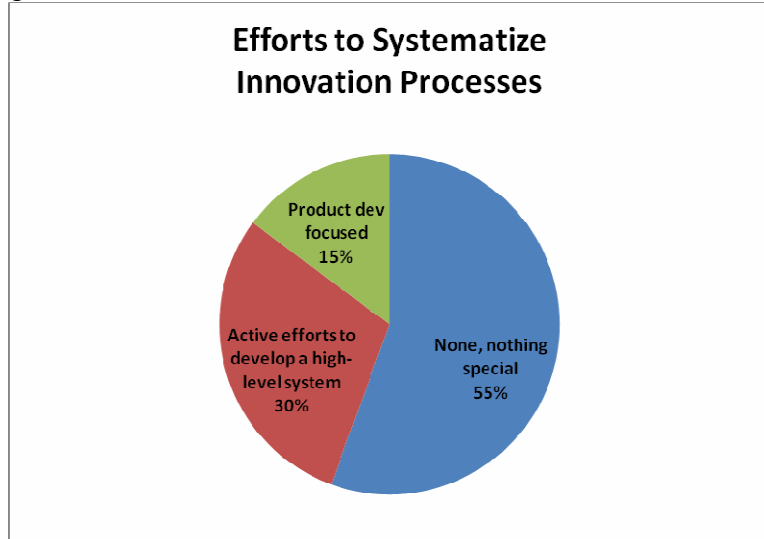
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"A core group of people would benefit, but I have come to believe that providing innovation strategies all the way through the organization is a waste of time. Some of my peers differ with me on this point—maybe it works in their organizations but not in the business we're in... We have tried a variety of things ..., and most of it was marginally successful or unsuccessful. In our case, some of the most senior people in the business think that they're already innovative, but for the most part they had a major success at some point and they are resting on those laurels. They don't view innovation as a process. Serendipity is okay, but trying to get them to develop metrics, and so on was impossible. It was driven from the top, but when the top loses interest, it dies."

III. 7) Efforts to systematize innovation

The majority of respondents reported that they are not aware of any special activities to systematize innovation efforts in their organization. A few discussed efforts focused on improving new product development.

Several participants, though, described initiatives to systematize innovation at a high level. Specific rollout plans range from setting up a high-level management team to examine business and operating models, to establishing global innovation groups charged with integrating processes organization-wide, to deliberately developing organic networks for innovation.



"We are focusing on systems thinking, and we have worked on a project to articulate our business model. The President understood that this was necessary, but most others thought it was a waste of money, that they already know their business model. That's why the term 'articulate' was used, rather than 'define' or 'develop'. The objective is to understand the business model first, and then assess whether the operating model is fit for purpose—that is, will it consistently deliver the business model."

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"We have a process for advancing and understanding a cadence of change. Every year there's a major change in our industry, so for every product line we expect a cadence of change. We have established teams for each business line, led by product managers and including marketing, engineering, quality, manufacturing, purchasing and whoever else needs to be brought in. All strategies are reviewed, and the teams bear the onus for the cadence of change."

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"We are working on a future state in which we envision a global ideation group that has the tools to pull ideation from anywhere, but a consolidated process and structure to move from insight to idea and idea to product, to drive strategy, and to feed the various business groups. The goal is to manage ideation lightly—anything too rigid can potentially squash good insights—but have a rigorous process for shepherding ideas through their various stages to becoming products. The process will allow us to fail early, fail cheap, and create a balance and rhythm of innovation across its various types, which we classify into four categories: breakthrough, evolution, expansion, and maintenance. For now, this is focused on products and packaging, not processes. If the strategy is to drive all other efforts, it must be developed from a deep understanding of the consumer, deep understanding of the business fundamentals—what

we're good at—and of where we want to play, and then we can tailor the processes accordingly.”

“I lead a fairly new team, focused on three areas: innovation and collaboration; product development; and green and sustainability. The innovation component includes collaboration, employee engagement, and cultural aspects—navigating processes and ingraining them in the organization, collaborating and bringing in the participation of larger networks. The goal is to fill the pipeline and generate ideas. Product development’s role is to vet and deploy new ideas, new services.”

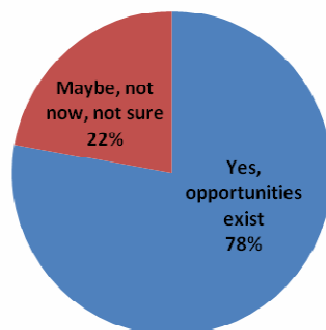


“In my arena, it goes back to creating the environment, which means creating innovation networks.... As you bring people together they start to form a network, share knowledge, draw knowledge from each other—tacit knowledge—and it’s catalytic. You can clearly see how these teams organically form. Essentially, it’s creating a learning system. Clear goals are essential, as is alignment between the teams and their management. (Management teams can be the kiss of death.) Four or five years ago, I would have considered myself crazy to be describing it this way. There is always a temptation to fall back on hard metrics, but it is really about the soft ones.”

III. 8) Cross-functional opportunities to develop capabilities and integrate improvement and innovation

Interviewees see significant opportunities for cross-functional work in innovation and improvement, but not much existing activity in their companies. A few people did cite specific examples of current efforts:

Opportunities for Cross-Functional Work on Innovation



“Our innovation team works across all functions: operations, IT, finance. Where we encounter more overlap with the operational excellence team is in areas that relate to technical automation.... The

opportunity with operations and improvement is to start to morph it to link more with growth strategies.”



"We're already doing that. The teams I work with have extremely diverse skill-sets and backgrounds. Innovation overall comes from the team, but the actual 'sparks' of innovation mainly come from the outliers—those on the periphery of the team environment—because they are not bogged down, not so deeply ingrained in the philosophies and beliefs of other members on the team."



"Here's a concept straight out of a kaizen last week: We generate a waste stream from our manufacturing operations that can be used as a value-added product in another industry. If we could sell it, we wouldn't have to process it for disposal, and we'd potentially have another revenue stream. We have involved sales, but we need top management to follow up on action plans. We have high hopes."

Those who expressed reservations about the possibilities for working cross-functionally either see potential competition and confusion, or believe their organization lacks the necessary leadership support.

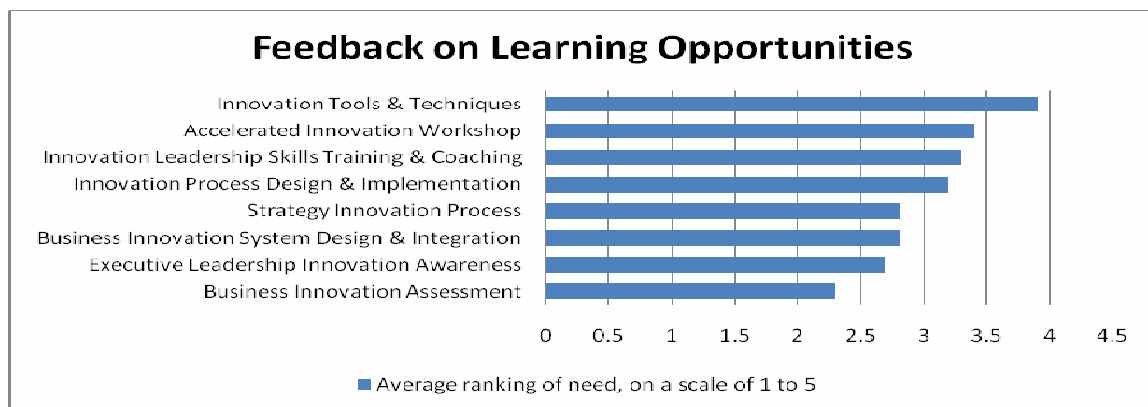
"I'm not sure, they're each generating good returns. If you threw them in the same room, it's almost like it could get too chaotic. The scope is very different."



"We did do some cross-functional teamwork in this area, and everyone benefited. But when you tried to get the most senior business unit executives to attend, they blew it off."

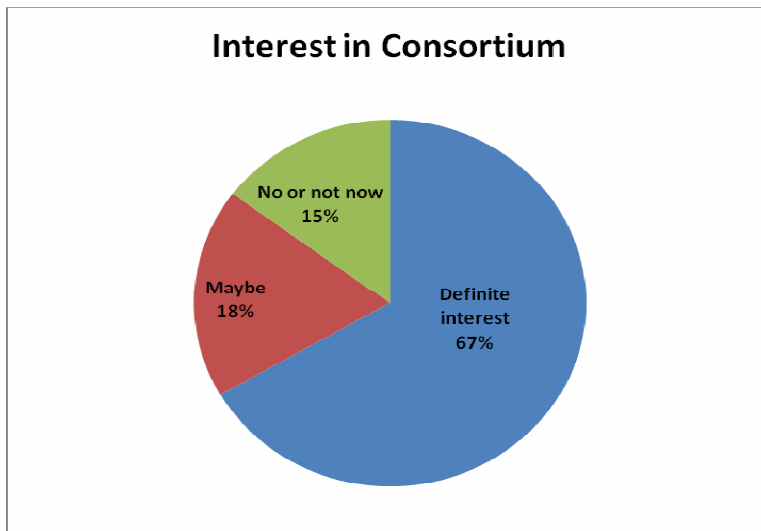
IV. Feedback on Learning Opportunities and Needs

Learning opportunities that are perceived to be pragmatic and provide immediately applicable information and skills—in tools and techniques, innovation workshops, coaching and training on direct innovation leadership skills, and designing and implementing processes for innovation—garnered the most interest.



Offerings geared toward higher-level strategies and top leaders were of less interest. In some cases, top leadership was described as already onboard, already engaged, already knowing what they want to do. A significant group of respondents, though, said that top

leadership does need more exposure and education, but they are too difficult to engage in any meaningful way.



Two-thirds expressed definite interest in participating in a consortium to explore practical application of innovation methodologies. Interest is, of course, conditional upon learning more about how the group would be structured and whether it would relate well to their own environment and needs.

KEY INSIGHTS AND ANALYSIS

Group Snapshot

Overall, this group is experienced with and serious about improvement (operational excellence) and reports that the ultimate responsibility for improvement resides at a high organizational level. They invest a great deal of confidence in the power and purview of improvement strategies to address a wide range of business issues and provide the impetus and capacity for growth.

At most of the companies, aside from the service organizations, the people typically involved in improvement projects have little or no direct contact with external customers or suppliers. And while a variety of formal and informal criteria and systems are used to select and manage improvement projects, there was an undercurrent of dissatisfaction with how well and strategically this is handled, in small and large organizations alike.

In contrast, ownership of innovation is reported to be more divergent, resting with top management; product development; the business units or plants; an innovation group or council; sales, marketing, or business development; and with everyone. Core similarities emerged in definitions of innovation—such as making radical versus incremental change and creating new value for customers—but also key differences in relation to its scope, whether it requires an innate mindset, and whether it competes with or is compatible with improvement.

Skill-sets specific to innovation strategies and techniques are relatively undeveloped in the group. Most people expressed that learning more about innovation techniques and management processes would be welcome and beneficial, even in operational areas, but some had reservations about whether “innovation” *can* be taught or how useful and applicable training and engagement would be. Current systems for capturing and sharing ideas and best practices are judged to be clumsy and ineffective, for most organizations. And, while a few companies are taking definitive steps to make innovation efforts more systematic overall, that does not appear to be the case for most yet (or at least not to any extent that was visible to the respondents).

Leadership and Innovation

The survey responses on the whole point to possible innovation leadership gaps, indicated by

- the extent to which internal factors—including leadership understanding and support, process and customer focus, and employee development—were raised as current problems in a variety of areas;
- insufficiencies in leadership and management processes for effective knowledge sharing;
- skepticism about the possibility of engaging top leadership in education on innovation, and

- the relatively disparate array of answers regarding what function in the organization is ultimately responsible for innovation.

Concerns about potential competition between improvement and innovation also reflect a broader reality: The innovation process—in new products, processes, services, and business models—can indeed threaten the availability of resources to serve the core business. It can even threaten the core business itself. Balancing core business needs with innovation and growth in new and potentially competing areas is an effort that must be driven and arbitrated by top leadership, or it will likely be doomed to failure.

What “Innovation” Means

More formalized organizational definitions of innovation came from the minority of participants who have been actively involved in systematizing innovation. A few of those definitions integrate the common interpretations of “innovation” heard across the group—especially “creating new value.” But a couple of others articulate more distinct concepts that reflect unique business situations, such as:

“...radical structural change that is a metamorphosis of the business.”



“...creating a cadence of change.”

Other distinctions on elements of innovation emerged across the group—including delineations among invention, ideation, recombining or reapplying existing ideas, the product and service development process itself, and incremental improvement versus radical change. As discussed earlier, opinions vary on whether innovation requires a fundamentally different way of thinking, and whether individual mindsets can be influenced to any significant degree.

One key takeaway from the discussions: since innovation is a key business concept and one that stimulates a variety of questions and interpretations, organizations should see practical value in learning current innovation practices in-depth and then defining what innovation means more specifically for their own situation.

The combination of commonalities and differences expressed by the group, and likely inherent in individual organizations, that is:

Some shared fundamental concepts of innovation
+
Different opinions on how innovation and its various
aspects and elements apply in a specific environment
+
Questions about who has the capacity, motivation, or
mindset to innovate in a specific environment

could provide a useful starting point for an organization to develop a nuanced and pragmatic understanding of innovation tailored for its own environment. And since, as pointed out by one respondent, talking about innovation is challenging because it means different things to different people, establishing a common understanding is important.

Innovation at a Strategic Level—in the Business Model

Views on the scope of innovation also vary, from technical process change, to creating new value through products and services, to high-level changes in business models and structures. Few people, however, specifically mentioned that last area: business-level innovation.

Focusing on high-level business models and structures could provide a practical way of identifying higher-leverage opportunities for both improvement and innovation initiatives. This may currently be hampered if innovation and improvement are functioning in independent silos. As stated by the participants:

"[Referring to the relationship between waste elimination and growth,] the link to innovation is not yet understood, where the business model is enhanced."



"For me, the problem normally occurs when people wrongly try to separate the customer experience, process, and product."



"The problem I fight is how to separate 'product development' from 'innovation'. Claims that innovation is a broader skill-set—that is, where ideas come from, innovation as a process, and so on—fall on deaf ears.... It's easy to create brand extensions, but hard to create completely new product categories."

Innovation and Improvement

Improvement is widely viewed as incremental and tactical change, and innovation as breakthrough and strategic. Some see innovation as achieving breakthroughs specifically by recombining existing ideas, methods, or technologies in new ways or contexts, versus inventing new-to-the-world offerings. This view resonates well with the thought processes and work of improvement.

Some respondents characterize improvement as a rote or repeatable process to be implemented. In contrast, they see innovation as a "clean-sheet" activity requiring a different mindset from improvement, or a more difficult process to capture and repeat:

Where people run into trouble is when they attempt to set up an approach that makes innovation a consistent process. I'm sure it can be mapped, but is it the same every time? I doubt it. They're all really customized studies.

While the participants do see a strong connection between waste elimination and growth, that does not appear to follow through to particularly strong linkages between improvement and innovation strategically or operationally. Most could see good opportunities for cross-functional work between improvement and innovation groups. That is already happening regularly for some, but not across the group as a whole. As one participant put it, there is an opportunity “to start to morph operational excellence to link more with growth strategies.”

Improvement and innovation are viewed as compatible and synergistic, with skill-sets that could be cross-applied. For most, next steps in improvement will focus on expanding rollout efforts to reach more employees and more functional areas, and on finding ways to embed the thinking more deeply in their organizational culture. This is likely to be a concern with innovation as well. Cultural and leadership issues are another area where innovation and improvement strategies can connect.

Creating new value for customers requires a deep understanding of their articulated and unarticulated needs. Of course, the same premise is fundamental to improvement philosophies and strategies. While manufacturing improvement teams are reported to have indirect information about customer needs, most do not have much direct interaction with customers. Frontline service staff, on the other hand, typically do have strong direct connections with customers, which could position them well for involvement in broader innovation efforts.

Innovation Systems and Execution

What’s more critical—good ideas or a reliable means of capturing and delivering on them? Some clear views on this emerged from the group:

“Anybody can generate data, have an idea—how you interpret and use it is what it’s really about.”



“If we start coming up with unique ways of delivering a value-added piece to a customer and it can’t be executed, then it’s useless.”



“We have a solid plan; the problem lies in execution.”

If execution trumps idea-generation in bringing new offerings and innovative business models to life, the survey responses speak to some key areas for further attention:

- Identifying and working to close any gaps in leadership in order to establish necessary attitudes, support, structures, and strategic decision-making processes that will drive innovation and balance the needs of existing business offerings with new growth areas.
- Establishing more effective means for managing high-level project portfolios, an area of need in the improvement arena which could also represent similar needs

- for managing dynamic portfolios of projects in other areas, including strategy and innovation.
- Creating more user-friendly and useful systems for idea capture and knowledge management, including the management processes needed to sustain them effectively.
 - Examining current functional silos, for both innovation and improvement, and seeking new ways of connecting people across the organization in more dynamic networks.
 - Determining what the process of ongoing innovation entails in different contexts and how to manage each part of that process most effectively.

Establishing a separate corporate innovation council is not the only way in which innovation is being systematized for effective and consistent deployment in this group. Setting up cross-functional “roadmap teams” to manage key strategic initiatives, engaging leaders to articulate current business models and evaluate their fitness, and fostering organic networks of employees working on innovative ideas and projects are some of the other ways the respondents’ companies are organizing to enhance capability in innovation.

APPENDIX: SURVEY INSTRUMENT

Survey: “Next Generation Growth Strategy”

As organizations advance in operational excellence, they more frequently ask the question, “***But, what’s next?***” We typically hear this from people in companies that are far along in their lean journey, or for whom markets are shifting, uncertainty and complexity are increasing, and business models, processes, products, and services need to change. **Will their current improvement initiatives provide competitive advantage, growth, and long-term sustainability?**

In response, we have engaged in a multi-year research effort on **innovation as an organizational capability**, focusing on the need to

- balance and integrate improvement and innovation strategies;
- ensure that improvement efforts are not focused on declining value streams; and
- mesh the lean principles of flow, disciplined work, and learning with innovation principles, to build communities of new value seekers, experimenters, and creators.

Though innovation is often associated with new product development, we view it more broadly as **an enterprise-wide capability to consistently conceptualize, develop, and deliver to market new value** by adapting and combining concepts that have been successfully demonstrated in other domains.

We are conducting interviews with key industry contacts to learn more about your current needs, perceptions of “innovation,” and the opportunities and obstacles you see to foster innovation as an organizational capability.

We welcome and value your participation. In return, we will send you a full **report and analysis of our findings**, so that you can benchmark your responses with others.

(*NOTE:* Results will be reported in general categories to maintain the confidentiality of individual respondents.)

The survey questions are attached for your review, in preparation for our discussion. We look forward to hearing your ideas.

Maura May
Director, Research & Development
Productivity

Next Generation Growth Strategy Survey Questions:

- I. Basic information about your organization and your role within it.
 - 1) Business type—your industry and core product/service offerings?
 - 2) Business size—approximate number of employees and revenue?
 - 3) Your title and your position in the organizational structure?
 - 4) The general scope of your responsibilities, and the types of strategic and cross-functional activities and initiatives with which you are typically involved?
- II. Contextual background on improvement/operational excellence initiatives
 - 1) To what extent has your organization implemented lean, six-sigma, or other initiatives (length of time, success/maturity level, enterprise functions involved)?
 - 2) What is your personal involvement with driving these initiatives?
 - 3) Where does the ultimate responsibility for operational excellence reside, and how visible are improvement initiatives across your organization?
 - 4) What criteria are used to select improvement projects and how do you currently manage your project portfolio?
 - 5) To what extent and how do the people involved with these initiatives interact with customers and/or with your supply chain?
 - 6) What problems does your business face that are not or cannot be addressed by current improvement initiatives? To what extent do you see these as falling within your purview?
 - 7) What do you consider as the “what’s next” in your improvement efforts and your organization’s journey toward operational excellence?
 - 8) Does your business strategy assume that waste elimination will result in business growth?
- III. Relationship of improvement/operations and innovation activities
 - 1) How would you define “innovation” in the context of your business?
 - 2) Where does the ultimate responsibility for innovation (in products, processes, business models) reside in your organization?
 - 3) How do you view the relationship between improvement and innovation? Are they compatible and synergistic or competing, drawing on fundamentally different mindsets and disciplines?
 - 4) How does your organization capture ideas and disseminate knowledge across operations and the enterprise?
 - 5) What education have you received on innovation practices (through reading, executive education, skills training, other)? How about others in your department or area?
 - 6) Do you see potential benefits that could stem from incorporating innovation skill-sets in operational areas and improvement efforts?
 - 7) What efforts, if any, is your organization currently driving to systematize or improve innovation practices and processes?
 - 8) Do you see opportunities to work cross-functionally to develop innovation capabilities and integrate improvement and innovation initiatives?

Feedback on prospective learning opportunities/interventions related to Innovation:

I. Based on the brief descriptions below, please indicate on a scale of 1 to 5 how likely it is that the following offerings might match a need in your organization (1 = very unlikely; 3 = possible; 5 = very likely):

<i>Offering</i>	<i>Description</i>
1) Executive Leadership Innovation Awareness	An intensive session that explains how any organization can leverage innovation to rapidly grow their top line.
2) Business Innovation Assessment	Working with your leadership team to determine strengths and weaknesses in the innovation-critical areas of strategy, process, metrics, technologies and tools.
3) Strategy Innovation Process	A proven approach to drive innovation into business strategy, leveraging innovation in all 10 aspects of your business model, and rapidly provide compelling value differentiation and focus.
4) Business Innovation System Design & Integration	Developing a customized Innovation Roadmap to guide a systemic enterprise-wide transformation process and build innovation capability at all levels of your organization.
5) Innovation Leadership Skills Training & Coaching	A series of learning and coaching sessions designed to build your community of “intrepreneurs”—an internal cadre of new value creators at all levels of your organization
6) Innovation Process Design & Implementation	Designing and implementing the collaborative processes you need to succeed, including idea sourcing and management, prototyping, and risk assessment
7) Innovation Tools & Techniques	Interactive, hands-on training sessions for over 50 different innovation tools and techniques that can be flexibly delivered to leadership, innovation practitioners, and all employees.
8) Accelerated Innovation Workshop	A high-velocity process for deriving the benefits of innovation in a focused area of your current-state business model, in a greatly compressed timeframe

II. Would you/your organization be interested in exploring the possibility of joining a small consortium of companies to explore practical applications of innovation methodologies?

Definitions of Innovation

Baldrige Award Criteria (2010 edition):

“Innovation means making meaningful change to improve an organization’s products, services, programs, processes, operations, and business model to create new value for the organization’s stakeholders.... Innovation is no longer strictly the purview of research and development departments; innovation is important for all aspects of your operations and all work systems and work processes. Organizations should be led and managed so that innovation becomes part of the learning culture. Innovation should be integrated into daily work and should be supported by your performance improvement system. Systematic processes for innovation should reach across your entire organization.

Innovation builds on the accumulated knowledge of your organization and its people. Therefore, the ability to rapidly disseminate and capitalize on this knowledge is critical to driving organizational innovation.”

Productivity:

“Innovation is an enterprise-wide capability to consistently conceptualize, develop, and deliver to market new value by adapting and combining concepts that have been successfully demonstrated in other domains. This new value could be new products, services, and customer experiences, but it could also be new distribution channels, new partner networks, new market space—innovation applies to every aspect of your business model.”

ABOUT THE SURVEY SPONSORS



The Ohio State University, Fisher College of Business' Center for Operational Excellence

The Center for Operational Excellence (COE) is a member-based, not for profit, business partnership center that is a unique affiliation of business leaders and educators sharing a common ideal of achieving competitive advantage and excellence in operations management through education, research, and engagement. All member companies focus on improving operational excellence, and COE provides educational programs on lean, innovation, Six Sigma, and supply chain management to achieve that goal.

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