

OFFICE OF INSPECTOR GENERAL UNITED STATES POSTAL SERVICE

Innovation Best Practices Analysis

Audit Report

December 19, 2011

Report Number CI-AR-12-001



OFFICE OF INSPECTOR GENERAL UNITED STATES POSTAL SERVICE

HIGHLIGHTS

IMPACT ON:

The U.S. Postal Service's innovation process and stakeholders who bring ideas for consideration to the Postal Service.

WHY THE OIG DID THE AUDIT:

Our objective was to identify and learn about innovation best practices/processes that can be considered for use by the Postal Service.

WHAT THE OIG FOUND:

As a result of examining innovation practices at 14 organizations recognized as leaders in innovation, we identified 19 best practices that can be considered for use by the Postal Service. The best practices fall into six categories: (1) integrating innovation and business strategies. (2) creating and capturing new ideas from internal and external sources, (3) deciding which innovations to pursue, (4) evaluating the progress of each innovation initiative, (5) managing the relationship between innovation activity and ongoing work, and (6) instituting key foundational elements to foster innovation.

WHAT THE OIG RECOMMENDED:

We identified 19 best practices the Postal Service can consider using. We recommended implementation of the following six of the best practices by September 30, 2012: December 19, 2011

Innovation Best Practices Analysis

Report Number CI-AR-12-001

- Leadership should provide strategic direction to focus innovation on the right outcomes.
- Leadership should communicate the innovation strategy throughout the Postal Service and with stakeholders.
- 3. Dedicate full time staffing to innovation.
- 4. Establish a process to manage innovation within the Postal Service and with stakeholders.
- 5. Encourage sharing and crosspollination of ideas across the postal community.
- 6. Establish dedicated funding for innovation.

We also recommended the remaining 13 best practices be phased in over the subsequent 24 months and that the postmaster general and chief executive officer incorporate innovation planning into the Postal Service's strategic plan by March 30, 2012.

WHAT MANAGEMENT SAID:

Management agrees that it could more formally document and improve innovation and innovation process management throughout the Postal Service.

AUDITORS' COMMENTS:

Management was responsive to two of our three recommendations.

Link to review the entire report



December 19, 2011

MEMORANDUM FOR:

PATRICK R. DONAHOE POSTMASTER GENERAL AND CHIEF EXECUTIVE OFFICER

E-Signed by Mark Duda authenticity with Sign

FROM:

Mark W. Duda Assistant Inspector General for Audit

SUBJECT:

Audit Report – Innovation Best Practices Analysis (Report Number CI-AR-12-001)

This report presents the results of our audit of Innovation Best Practices Analysis (Project Number 11WG005CI000).

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Michael L. Thompson, director, Planning, Innovation, and Optimization, or me at 703-248-2100.

Attachments

cc: Joseph Corbett Paul E. Vogel Corporate Audit and Response Management

TABLE OF CONTENTS

Introduction1
Conclusion2
Recommendations4
Management's Comments5
Evaluation of Management's Comments5
Appendix A: Additional Information6
Background6
Objective, Scope, and Methodology6
Prior Audit Coverage9
Appendix B: Integrating Innovation Strategy into the Business Strategy
Appendix C: Creating and Capturing New Ideas from Internal and External Sources 12
Appendix D: Deciding Which Innovations to Pursue16
Appendix E: Evaluating the Progress of Each Innovation Initiative
Appendix F: Managing the Relationship between Innovation Activity and Ongoing Work
Appendix G: Other Key Foundational Elements Necessary to Effectively Foster Innovation
Appendix H: Management's Comments

Introduction

This report presents the results of our audit of Innovation Best Practices Analysis (Project Number 11WG005CI000). Our objective was to identify and learn about innovation best practices/processes the U.S. Postal Service can consider using. This self-initiated audit addresses strategic risk.

This is the second of two projects about innovation at the Postal Service. Our first report was *The Postal Service's Innovation Process for Competitive and Market-Dominant Products* (Report Number MS-AR-11-004, dated June 8, 2011). We noted that, despite facing regulatory and market constraints to innovation that private companies do not face, the Postal Service has introduced innovations such as Priority Mail[®] Flat Rate Boxes, the Intelligent Mail barcode, and Simplified Addressing. However, the Postal Service does not have a formal innovation process or strategy for itself or one that partners with stakeholders to grow new revenue streams.

Innovation is the process by which individuals and organizations generate new ideas and put them into practice.¹ Innovation differs from invention in that invention is the first occurrence of an idea for a new product or process, while innovation "is the art of perfecting that into something that actually creates value. Invention is the spark but innovation is what actually people will pay for."²

Innovation can be critical to the success and longevity of any organization. For example, one of the companies we analyzed attributes \$8 billion of its annual revenue to its transformation through innovation from a product-driven business into a services-driven business.

The U.S. Postal Service Office of Inspector General (OIG) conducted best practices/processes research with the assistance of a contractor, to identify how leading private sector organizations foster and institutionalize innovation. We interviewed individuals at 14 companies³ from a variety of industries:

- Corporation
- Google Inc.
- Corporation
- Intuit Inc.
- Corporation
- McDonald's Corporation
- Philips Design
- Corporation
- nc.
- Swiss Post International

¹ A Strategy for American Innovation, Securing Our Economic Growth and Prosperity, National Economic Council, Council of Economic Advisers, and Office of Science and Technology Policy, February 2011, page 7.

² Dow Chemical video, Innovation: 2009 Investor Day. http://www.dow.com/innovation/

³ An OIG auditor was present during each interview.

- Toyota Motor N. America, Inc.
- Walgreen Co.
- The world's largest retailer
- Xerox Corporation

The interviews focused on six questions about innovation:

- 1. How do organizations integrate innovation strategy into business strategy?
- 2. How do organizations create and capture new ideas from internal and external sources?
- 3. How do organizations decide which innovations to pursue?
- 4. How do organizations evaluate the progress of each innovation initiative?
- 5. How do organizations manage the relationship between the innovation activity and ongoing work?
- 6. What are other key foundational elements necessary to effectively foster innovation?

We explain these best practices and provide examples of how the companies apply them in detail in the appendices to this report.

See Appendix A for additional information about this audit.

Conclusion

Embracing innovation allows a company to keep up with its customers' changing needs, competitors, and society more broadly. Innovation creates game-changing outcomes for a business. Our work with the companies interviewed identified 19 best practices, which the Postal Service can consider in order to foster and institutionalize a strong culture and capability for innovation. While it may not be practical for the Postal Service to implement all 19 best practices at once, they should implement them over a 2- to 3-year period. We believe management should implement these best practices in three phases.

The first phase would be an establishment phase to establish a formal innovation process for the Postal Service and its stakeholders and include the following six best practices:

- Provide strategic direction to focus innovation on the right outcomes.
- Communicate the innovation strategy throughout the Postal Service and with stakeholders.

- Dedicate full-time staffing to innovation.
- Establish a process to manage innovation within the Postal Service and with stakeholders.
- Encourage sharing and cross-pollination of ideas across the postal community.
- Establish dedicated funding for innovation.

The second phase would be an enhancement phase, building on the six best practices implemented during the establishment phase. For example, partnering with external parties and employing multidisciplinary teams are logical extensions of dedicating full-time staff to innovation. The enhancement phase should include the following six best practices:

- Partner with stakeholders and others to gain new perspectives.
- Use multidisciplinary teams to focus on innovation.
- Catalog innovative ideas to improve knowledge management.
- Collaborate internally to create an effective handoff process.
- Use a portfolio approach to ensure the right mix of innovation initiatives is in the pipeline.
- Develop and sustain a culture of innovation.

The completion phase would finish the innovation management framework. Best practices in this phase are closely aligned with those in the earlier phases. For example, learning from failure is a logical extension of determining a framework for managing innovation initiatives and cataloging ideas. The completion phase should include the following seven best practices:

- Learn from failure.
- Use milestones to manage risk and opportunity.
- Leverage data to estimate how an initiative will perform before it is implemented.
- Track the innovation initiative's financial performance post-implementation.
- For service innovation in particular, measure reach, value per customer, and the rate of innovation.

- Establish ethnography, observational, and behavioral research as part of the innovation process.
- Make funds available for off-cycle ideas that do not coincide with typical budget processes.

In summary, a strong innovation culture needs openness and collaboration along with risk taking and a willingness to disrupt current lines of business. In addition, innovation should be separately funded to protect it from day-to-day operational demands and demonstrate the level of commitment. Without separate funding, potentially lucrative initiatives may never be explored due to competing demands and priorities.

Recommendations

We recommend the postmaster general and chief executive officer:

- 1. Incorporate innovation planning into the Postal Service's strategic plan by March 30, 2012.
- 2. Develop a time-phased plan to implement the first six best practices listed by September 30, 2012.
- 3. Develop a time-phased plan to implement the remaining 13 best practices over the subsequent 24 months after implementing the first six best practices.

Management's Comments

Management agrees that it could more formally document and improve innovation and innovation process management throughout the Postal Service. Management notes that the Postal Service has been extremely innovative, particularly in its engineering and operational processes, implementing innovative ideas that contribute to lower costs, higher mail volumes or retention of mail volume. Postal Service management and McKinsey and Co. have evaluated over 100 such ideas. The Postal Service faces legal and regulatory constraints that preclude it from developing new products and services.

Management conditionally agrees with recommendation 1, noting that the November 2011 Comprehensive Statement on Postal Operations includes a review of postal strategies. In response to recommendation 2, management suggests that its DRIVE (Delivering Results, Innovation, Value and Efficiency) initiative aligns with the six best practices that we suggest be implemented by September 2012. Management plans to implement recommendation 3 in less than 24 months, assuming it gains greater operational and market flexibility through legislative and regulatory change. See Appendix H for management's comments, in their entirety.

Evaluation of Management's Comments

The U.S. Postal Service Office of Inspector General (OIG) considers management's comments responsive to recommendations 1 and 2. However, management's comments on recommendation 3 are not fully responsive. We do not believe that any new legislative or regulatory authority is needed to implement the best practices identified in the report. Although there is disagreement with this recommendation, we do not intend to elevate this issue to audit resolution. However, OIG plans to conduct significant follow-up work in the innovation area.

The OIG considers all recommendations significant, and therefore requires OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective actions are completed. These recommendations should not be closed in the Postal Service's follow-up tracking system until the OIG provides written confirmation that the recommendation(s) can be closed.

Appendix A: Additional Information

Background

Innovation is the process by which individuals and organizations generate new ideas and put them into practice.⁴ Innovation differs from invention in that invention is the first occurrence of an idea for a new product or process, while innovation "is the art of perfecting that into something that actually creates value. Invention is the spark but innovation is what actually people will pay for."⁵

The essence of innovation is to "first find the problem, and then create the solution."⁶ For example, "Facebook enabled people to organize their social networks It was an instant hit because it met a need. It organized social life at Harvard."⁷

Innovation is particularly important for the Postal Service, as declining revenue, the struggling national economy, and the increasingly digital nature of the world threaten its core business. To be effective at institutionalizing innovation, the Postal Service must systematically address and manage innovation for the agency as a whole.

Objective, Scope, and Methodology

Our objective was to identify and learn about innovation best practices/processes the Postal Service can consider using. To accomplish our objective we engaged Kaiser Associates to work with us to conduct best practices research to identify how leading private sector companies foster and institutionalize innovation. We selected Kaiser Associates based on their extensive expertise in comparative analysis, as well as the innovation subject matter expertise of their partner firm, Peer Insight. In total, we interviewed individuals at 14 companies from a variety of industries. The interviews focused on the following essential components of innovation:

- 1. How do organizations integrate innovation strategy into business strategy?
- 2. How do organizations create and capture new ideas from internal and external sources?
- 3. How do organizations decide which innovations to pursue?
- 4. How do organizations evaluate the progress of each innovation initiative?
- 5. How do organizations manage the relationship between the innovation activity and ongoing work?

⁴ A Strategy for American Innovation, Securing Our Economic Growth and Prosperity, National Economic Council, Council of Economic Advisers, and Office of Science and Technology Policy, February 2011, page 7.

⁵ Dow Chemical video, Innovation: 2009 Investor Day. http://www.dow.com/innovation/

⁶Jeff Jarvis, *What Would Google Do?* (NY, HarperCollins Publishers, 2009), page 113.

⁷ lbid, p. 49.

6. What are other key foundational elements necessary to effectively foster innovation?

Kaiser conducted secondary research on innovation practices with private sector companies and received input from the OIG on which companies to study. Kaiser considered companies recognized by *Bloomberg Businessweek*, *Fast Company*, and *Harvard Business Review* for innovation excellence as a starting point. Kaiser then contacted senior individuals at selected companies to schedule primary research interviews on behalf of the OIG. Each interviewee was screened prior to the interview to ensure that they could credibly speak to the OIG's innovation questions.

A list of profiled organizations and their recognition for innovation is included below, along with a list of representative titles of the interviewees:

Organization	Recognition for Innovation				
Corporation	 Recipient of IBM's Information On Demand Innovation Award in 2009 for developing its own information management system. Partner with and competitor of the Postal Service. 				
Google Inc.	 Ranked as one of the top most innovative companies by Fast Company in 2011. Ranked as one of the top most innovative companies by <i>Bloomberg Businessweek</i> in 2010. Creator of the most popular search engine in the world. 				
Intel Corporation	 Ranked as one of the top most innovative companies by Fast Company in 2011 and by <i>Bloomberg Businessweek</i> in 2010. Recently committed \$8 billion to building a new research lab in Oregon and upgrading other American facilities. 				
, Inc.	 Featured in <i>Harvard Business Review</i> for its unique approach to innovation. Intuit's founder was featured in <i>Inc.</i> Magazine on the topic of innovation. 				
Corporation	 Winner of a JEC Innovation Award⁸ for leading innovations in the manufacture of composite materials in 2010. Winner of <i>R&D</i> magazine's "100 greatest technologies" award for its work with multifunctional optical coatings in 2010. Winner of the "Technology Innovation Award" from <i>Aviation Week & Space Technology</i> magazine in 2003. 				
McDonald's Corporation	 Ranked as one of the top most innovative companies by <i>Bloomberg</i> <i>Businessweek</i> in 2010. Featured in <i>Fast Company</i> magazine for its innovative customer service design. 				
Philips Design	 Stefano Marzano, CEO, was named one of four "Best Leaders" for innovation by <i>Bloomberg Businessweek</i> in 2005. Philips Design won Design Team of the Year by Design Zentrum Nordrhein Westfalen (Germany) in 1998 and its products are in the permanent collections of museums around the world. 				

⁸ JEC Innovation Awards are given out by JEC Composites, which is an industry organization dedicated to promoting composite materials internationally.

Organization	Recognition for Innovation				
Corporation	 Their new instant coffee was recognized by Allegra Strategies as the "Most Innovative New Product of the Year" in 2009. CEO preaches the importance of innovation and insisted that innovation pipeline keep flowing even during the financial crisis. Featured by National Public Radio as a company that used innovation to help turn around sales. 				
Inc.	 Winner of two Best of NeoCon Awards for innovation in 2010 for its invention of the Node[™] desk chair and the SW_1 table. Partial owner of IDEO, recognized as one of the most innovative design companies for the last 15 years. 				
Swiss Post International	 Recipient of a 2011 World Mail Award for its creation of a "Swiss Post App" for mobile smart phones. Same industry as the Postal Service. Potential model for postal and business model innovation.⁹ 				
Toyota Motor North America, Inc.	 Toyota's Camry Hybrid won Drive.com's Green Innovation Award in 2010. Ranked as one of the top most innovative companies by <i>Bloomberg Businessweek</i> in 2010. Inventor of the Prius, the first mass-produced hybrid vehicle in the world. 				
Walgreen Co.	 Winner of an Innovation Award from the Center for Business Intelligence for its Patient Adherence Collaboration Project. Winner of a Chicago Innovation Award in 2002 for its Multi-language Prescription Label. Created a separate group dedicated to business model innovation in 2009. 				
The world's largest retailer.	 Winner of the 2010 Grassroots Innovation Award issued by the Public Affairs Council. Ranked as one of the top most innovative companies by <i>Bloomberg Businessweek</i> in 2010. 				
Xerox Corporation	 Nominated for a 2011 Manning Innovation Award. Owner/operator of the Palo Alto Research Center where the personal computer, mouse, and Ethernet were invented. Files approximately 1,000 patents every year. 				

Representative Titles of Interviewees:

Senior Strategy and Innovation Manager Principal, Design Thinking Practice Senior Director of Corporate Innovation Vice President of Innovation Vice President of Concept and Design Director of Strategy and Innovation Director of Business Innovation Head of Innovation Management

We conducted this performance audit from May through October 2011 in accordance with generally accepted government auditing standards and included such tests of internal controls as we considered necessary under the circumstances. Those

⁹ The term "business model development" refers to activity focused on new ways to deliver, gain or create value.

standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. We discussed our observations and conclusions with management on September 27, 2011, and included their comments where appropriate.

Prior Audit Coverage

Report Title	Report Number	Final Report Date	Report Results
Postal Service's Innovation Process for Competitive and Market-Dominant Products	MS-AR-11-004	6/8/2011	Lack of a comprehensive innovation strategy, including systemic tracking and management of innovative ideas, limits strategic vision and creates an organization that responds slowly to a rapidly changing business and technological environment. We recommended the Postal Service (1) work toward legislative changes that will allow the Postal Service more flexibility to introduce new products and services and (2) consider a comprehensive innovation strategy that includes innovation teams that are both independent of operations and actively collaborate with outside organizations or other generally accepted innovation teams. The strategy should also contain a system to support tracking and management of innovative ideas that are generated. Management agreed with the first recommendation but disagreed with the second, stating that there are already processes for collaborating with customers and outside organizations. Also, management does not believe that investing in additional innovation teams is appropriate, given the legal and competitive constraints it faces.

Appendix B: Integrating Innovation Strategy into the Business Strategy

Note: In the examples provided in the appendices to this report we removed the names of the companies to protect confidential business information.

Leadership plays a key role in integrating an innovation strategy into the Postal Service's business strategy by defining the vision, direction, and the areas around which innovation should be focused. Leadership can proactively address naysayers who are tied to existing operations, tradition or incumbent business models and reward structures. Communication from the top about innovation strategy ensures that all employees and stakeholders understand the outcomes they may be able to influence, that innovation is a priority, and that success will be recognized and rewarded.

The following best practices describe how the companies we analyzed integrate their innovation and business strategies.

Best Practice 1: Ensure that leadership provides strategic direction to focus innovation on the right outcome.

Example 1 – Leaders define goals and company direction

Leadership clearly defines the customer values the company wants to deliver on. For example, the company leadership may say it "... is going to help its customers extract and manage valuable insights from their data" (helping customers create knowledge from information). The innovation team identifies needed technologies and investments in order to achieve the objectives. Thus, leadership defines the end point toward which the company is working and the innovation teams describe how to get there.

Example 2 – Leadership sets lofty and specific targets

The leadership provides top-down direction regarding what it wants the company to achieve by setting both high-level "lofty" goals, and more specific goals. This encourages innovators to dream big and sets expectations for the group. Leadership also identifies targeted areas of focus in order to guide innovation along with business strategy. For example, leadership's decision to focus on innovations in the smart-phone and tablet industry led to a collaborative effort between the company's internal innovation and research group and the business unit responsible for mobile technology.

Best Practice 2: Ensure that leadership proactively communicates the organization's strategy.

Example 1 – Strong partnership between senior leaders and the innovation team

The team responsible for disruptive innovation works closely with senior leadership to ensure that consistent communication and alignment exists between the two groups. The close partnership directly links individuals making funding decisions and managing the business with the individuals responsible for innovating and creating new business models. The innovation team believes that establishing this alignment has been a key to the company's innovation success.

Example 2 – Executive meetings and all-employee webcasts

Each year the top 300 company executives attend an off-site leadership kick-off meeting to discuss the direction of the company and the overall business strategy. New changes and new information are first disseminated through this meeting via the executives in attendance and each executive is then responsible for returning to his/her business unit and effectively cascading the information.

The leadership team also holds quarterly webcasts for all employees covering changes, problems, and tough decisions the company is facing. For example, the company has undergone a transformation from a product-driven business into a services-driven business. The company moved a large portion of its business into information technology and business process outsourcing, which now generates around \$10 billion in revenue. Such a transformation would not have been possible without tightly integrated and aligned communication from top leaders to help employees understand where the company was going and how employees could play a role in getting there.

Example 3 – Leadership's direct engagement with innovation initiatives

The CEO takes a "hands on" approach to communicating about innovation. He decided to put his office on the same floor as the team working to develop the company's next big product. This sort of hands-on leadership and direct engagement with innovation has resulted in rapid progress and effective execution. In the words of one senior executive, the CEO's "... willingness to be there day to day, rather than just 'parachuting' in from time to time," has made a big difference for the team and the success of the project

The lesson is that in order for innovation to work, leadership must be involved early and often. If leadership does not see a new product or service until it is ready for its final pilot test, or even implementation, then there is a much less chance of that innovation receiving approval and support for further funding and exploration. The bottom line is that frequent and effective communication with leadership is critical for the success of innovation projects.

Appendix C: Creating and Capturing New Ideas from Internal and External Sources

Internal ideation occurs in a variety of ways and may be considered to be the "messiest" part of the innovation process. There is no "one size fits all" approach. Generally, inserting too much rigor at this early stage in the innovation process can deter people from bringing forward great ideas.

The use of ethnography and observational and behavioral research to develop problem statements and discover new areas of focus consistently emerged as a major theme throughout the interview process. This does not refer to focus groups or surveys, as some users cannot articulate what they need or want very well. Careful observation of customers leads organizations to powerful findings and enables them to understand and anticipate customer needs.

The following best practices describe the ways that companies create and capture new ideas.

Best Practice 3: Conduct ethnography and observational and behavioral research as part of the ideation and development process.

Example – "Painstorming," customer empathy, and ethnography processes

When an innovation group identifies a business problem, it conducts an internal meeting called a "painstorm." The painstorm examines all the touch-points between a customer and an agent or system. The team highlights all the areas where things are going wrong for the customer, as well as the areas of the interaction that make the customer happy. Painstorming asks:

- Who are the customers?
- What are they trying to do?
- What gets in the way?
- What is the root cause of that pain?
- How can we solve this pain?

Best Practice 4: Cross-pollinate and encourage the sharing of ideas across the organization.

Example – Cross-pollination of ideas through brainstorming, "fairs," and a web portal

The centralized team responsible for business model innovation works with employees from all across the company to ideate, serving informally as a centralized innovation coaching resource. In addition, the innovation team facilitates "idea fairs," in effect a quarterly science fair where employees and senior leaders view other idea concepts submitted by employees. These fairs are intended to create a dialogue among employees and often spur completely new ideas. The team is currently building a website where employees and customers can submit their ideas and describe consumer needs, which will create more openness and enable more idea sharing across the company.

Best Practice 5: Partner with external parties to gain new perspective and leverage.

Example 1 – External brainstorming partnership and idea portal for customers

This company occasionally partners with outside vendors to bring in different perspectives on specific challenges. As the interviewee described it, "the biggest thing in brainstorming activity is to have openness to new ideas and not dismiss them because of risk. So partnering with external vendors gives you the ability to make sure the mindset is kept pure and you don't end up diminishing ideas because they're complicated."

Another way to partner with outsiders to generate ideas is through a web portal that captures ideas from customers. The website functions as an open forum, allowing customers to post their own ideas and then read and vote on other customers' ideas. This voting mechanism provides a preliminary vetting process for the over 98,000 ideas submitted to the site with more than 100 implemented.

Example 2 – Customer-led innovation

One method of external partnership is customer-led innovation. The company recognized that, like many other product development companies, it was structured such that the research and innovation team was integrated (or essentially buried) within engineering and manufacturing, and thus isolated from customers. The sales professionals were typically the only people with direct customer contact and they would only communicate their customer insights to the marketing department. Although a separate research and innovation team existed, it was not part of the customer interaction equation.

Now the research and innovation team works directly with customers by holding something it calls "dreaming sessions" where researchers and customers meet and discuss customer scenarios, problems, and challenges. The discussions revolve around how customers use technology in their lives and businesses, and where different pain points exist for them. Dreaming sessions try to answer questions such as:

- Does this innovation solve a problem?
- How might this customer use this technology?
- What should this technology do that it doesn't currently do?
- What should we be doing that we're not currently doing?

These dreaming sessions are not focus groups because the innovation team does not ask customers how much they would pay for a product or which

products they prefer. The goal is to get a solid understanding of what needs or requirements their technology could fulfill for the customer and to get some validation that an innovation is worth pursuing.

Another company also works with what it calls "lead users." Lead users are not first adopters of new technology, but are typically customers who, in the course of doing their own work, have had to be creative and come up with an interesting idea on how to improve their business. For example, NASA needed help to integrate its document sharing and collaboration tool (DocuShare) with XML technology. This was a difficult problem because it required NASA to maintain two separate systems. The company solved NASA's problem by combining the two technologies, and the result was a new product, which NASA agreed to let the company sell to other customers.

Best Practice 6: Catalog ideas in order to improve knowledge management.

Example 1 – Knowledge management tool

This company developed a sophisticated knowledge management tool that goes beyond merely tracking ideas and functions as a web-based innovation and idea management platform. Previously the company used a structured database to keep track of innovation initiatives. An employee created the new knowledge management tool to enable innovators to build a team, get support, grow ideas, and collaborate. This knowledge management tool allows senior management to track the status of innovation projects. The platform has been so successful that the company now markets it to other companies.

Example 2 – Use of SharePoint

This company uses SharePoint¹⁰ as a knowledge management tool for innovation. Prior to SharePoint, the institutional memory of innovation resided mainly in employees' heads. It was nearly impossible to learn from mistakes and understand why projects failed in the past; either the information would be scattered across the company in personal file drives, or it was lost altogether. Now, each functional element of an innovation project has corresponding file folders (such as having folders for marketing, design, research, photos and images, etcetera.), and each phase of the innovation process also has its own folder.

One interviewee described a recent situation that demonstrates the importance of capturing knowledge from failed innovation projects. His team would like to pursue a new initiative, but leadership is resisting because they say the company has tried similar projects in the past and each one failed. The team would like to study those failed projects to understand what went wrong and figure out a new way to make this idea work. Unfortunately, those projects occurred before the implementation of SharePoint, and the team is inefficiently searching for clues and answers to what happened. This anecdote illustrates

¹⁰ SharePoint is a Microsoft information management and collaboration software tool.

why capturing ideas through a knowledge management system, even if the system is simple, is critical to the successful institutionalization of innovation within an organization.

Appendix D: Deciding Which Innovations to Pursue

There is no "one size fits all" approach to selecting which innovation initiatives to pursue. The Postal Service must create frameworks that fit its strategy and goals and use them as guides for evaluating the potential risks and benefits of each initiative.

The Postal Service should manage the types of projects it pursues and the maturity of each project as a portfolio in order to strike a proper balance among innovation investments. This helps to maintain a mix of safe, incremental projects along with risky game-changing projects.

The Postal Service will need a system of milestones or stage gates in order to manage risk at each stage in the process. It must take care not to overcomplicate the process. Making it too cumbersome for employees, particularly in the early phases, can deter individuals from bringing forth initiatives and delay the process unnecessarily.

In addition to having an independent innovation budget, it is important for the Postal Service to provide some off-cycle funding so that great ideas can be pursued whenever they come up, as opposed to stifling them by waiting for the following year's budget process to occur. This is also important from a cultural perspective, as it helps create an open environment that is receptive to ideas at all times and prevents employees from being discouraged from bringing forth ideas.

Best Practice 7: Establish a process to manage innovation within the Postal Service and with stakeholders.

Example – Creating an Innovation Framework

This company's overarching innovation framework was created by its CEO and involves four steps: thinking, developing a clear point of view, planning to implement, and implementing. In the words of the interviewee, "this is a great framework because it really gives you a path from not knowing what to do all the way through to implementing what to do."

The first step, thinking, refers to human-centered design research to identify customer problems and inspire ideation. This is the discovery phase of the innovation process and it is a necessary first step to identify opportunity areas for innovation.

Following the research and subsequent analysis, the second step is creating a strong point of view about what the team should do with the problems and unmet needs it has identified. Ultimately, the team must decide 'where are we trying to go with this idea?' The company believes that question has to be answered clearly and explicitly from the beginning in order for the innovation to

be successful. As the interviewee stated, "All my experience has shown me that establishing a point of view is extremely important, and I spend a lot of time making sure my innovation teams have a strong, focused, relevant, and valuable point of view, because I know that the point of view is going to guide the team until the end of the project." The company believes that these first two steps are the most important and most difficult steps in the innovation process.

The third step is some loose form of prototyping. This could be a sketch, a written framework, a three-dimensional object, etcetera. The key is that it is done quickly. A prototype could be created, tested and then iterated all within the same week. This part of the process is highly iterative and is referred to as the "Express-Test-Cycle."

Best Practice 8: Use a portfolio approach to ensure the right mix of innovation initiatives is in the pipeline.

Example – Portfolio of investment ideas

This company treats its innovations as if they were a portfolio of investment ideas. The challenge this strategy presents is how the company should compare an array of 30 new ideas when each one may have a different intent or strategic purpose. To solve this problem, the company maps its ideas based on the newness of the technology and the newness of the market being targeted. Ideas that target completely new markets with truly new technologies would be considered one type of disruptive innovation and have the highest risk-reward profiles. On the other hand, ideas that target relatively established markets with slightly improved technology are considered incremental innovation — these ideas are the safest bets to be successful and the return on investment estimates are lower. The company tries to maintain a balanced and diversified set of innovation initiatives.

Taking this portfolio approach is an important first step to improving the effectiveness and success of its decision-making process. It is also important to have a certain amount of tolerance for risk. As the interviewee said, "If [our company] only invested in its core business we wouldn't be a \$22 billion business today; it would be much closer to a \$14 billion business. Being a growth-oriented company, we have weighted our portfolio with a fair amount of innovations focused on new markets and new technologies, and this has enabled us to outperform our peers that have invested in mostly cosmetic upgrades and incremental innovations."

Best Practice 9: Use a system of milestones to effectively manage risk and opportunity as an innovation initiative progresses.

Example – Three-step stage gate

This company uses a three-step stage gate process in order to vet ideas and manage risk. For the first stage individual employees submit "COSTAR proposals," which outline the proposed innovation initiative. COSTAR stands for Customer, Opportunity, Solution, Team, Advantage, and Results. The outline must describe how the proposed innovation impacts each of the six COSTAR topics and the COSTAR outline is limited to a maximum of four pages.

The innovation management team reads each employee submission to both preliminarily screen ideas and provide feedback to the innovator on how to improve the proposal. After this initial review and iteration, the proposal moves to the Management Committee, which meets once a month to fully review submitted COSTAR proposals and decide which new ideas to fund. The Management Committee is comprised of the company's top 50 leaders, but only six of them attend each monthly meeting. At the meeting, the employee who submitted the COSTAR is given 5 minutes to present their idea, followed by a brief question and answer session. Next the Management Committee meets privately to discuss the proposal. The entire process takes half an hour and, if the project is approved, the employee may receive up to \$60,000 to develop the idea further before the next stage gate. This first stage is intended to be a structured and efficient process for quickly getting money into the hands of people with good ideas.

Before the next stage gate, the Management Committee requires the employee to develop a prototype and investigate the idea at a deeper level by meeting with and researching customers. At this "quality gate," the company assesses the improvement of the product, the quality of the prototype, and areas for further exploration. The criteria at this stage become more stringent as the Management Committee assesses the innovation initiative by its risk, potential, newness, and the quality of the team.

If the idea makes it through this second gate and the Management Committee approves it, it will receive further funding to conduct a pilot test. Again, the stage gate process is structured to be fast and efficient — some ideas move from the initial COSTAR stage through to the pilot stage in just 3 months.

Best Practice 10: Make funds available for off-cycle ideas that do not coincide with typical budget processes.

Example - Seed funding and time "buy back" funding

This company has a system for allocating "seed funding" as well as a unique program that allows employees flexibility to switch projects in order to pursue an important innovation initiative. If employees want to work on an off-cycle innovation project (one that has not been budgeted for), they can enter a quarterly competition for seed funding. To enter the competition, employees download and complete a proposal form, which requires them to write a few pages about the idea. After the proposals have been submitted, each idea is reviewed by a committee of the employees' innovation and technical peers; management is not part of the process. The committee evaluates each proposal and it selects the best ideas to receive the seed funding. The funding is spread out as opposed to being one lump sum, and the committee establishes one or two milestones that the project must reach in order to receive the remaining funding.

In certain instances the company also uses its "off-cycle purse" to allow employees to buy time back from their current projects in order to work on a new project. In other words, if employees want to pursue an innovation project, but the project conflicts with other responsibilities, the company will occasionally provide funding that allows employees to bring in another resource to do their main job while the employees focus on the innovation project. This program requires a great deal of manager discretion but represents a unique way for a company to demonstrate and foster its commitment to innovation.

Appendix E: Evaluating the Progress of Each Innovation Initiative

Measuring innovation is challenging because it involves new products and services for which there may be little or no existing data about performance. However, the Postal Service should develop a set of metrics against which to measure the success of an innovation initiative.

If possible, evaluating an initiative's financial performance is an important way to evaluate its success, since commercialization is an important outcome of many innovation initiatives.

Failure can be very valuable for the Postal Service if it takes the time to analyze what went wrong and how it can change or improve something in the future. In order to capture this learning a standard process must be in place. This increases efficiency by saving time and money, as relying on institutional memory residing in employees' heads is insufficient.

Best Practice 11: Leverage all available data to make a best estimate of how a new initiative will perform once it is implemented.

Example – Scorecard and financial modeling

Many early disruptive innovation projects are evaluated on a qualitative basis because they are in such early stages of development that there are typically no comparable products or developed markets to compare them to. Later in the development of an innovation initiative when it is time to decide whether to invest a large amount of money in an innovation, the company constructs a detailed financial model. This kind of analysis is reserved for projects that will become autonomous spin-offs or major new products the company has invented. The company uses all available data to create a model that could range from a traditional discounted cash flow model to a more complex options-type model.

When the innovation team is asked to make a recommendation to the company's executives regarding a risky and large investment, the team uses a commercial tool to run a Monte Carlo simulation.¹¹ This analysis allows the company to look at the spectrum of outcomes that could occur for a given a set of parameters and assumptions. Monte Carlo simulations are very time-consuming and expensive, but are good for building confidence in the value of large innovation investments. In the words of a senior innovation executive,

We probably do some of the most sophisticated business modeling that exists, but it gives us great confidence in the decisions we make. With investing in innovation our goal is to

¹¹ A Monte Carlo simulation refers to the use of algorithms and random sampling to estimate the probability or value of something.

refine uncertainty. If we invest in the development of an idea and the research results do nothing to narrow the scope of our model's parameters, then we will probably not advance that project.

Best Practice 12: Consider the innovation initiative's financial performance post-implementation.

Example – Commercialization Criteria

One company defines innovation as invention plus realization plus commercialization. Commercialization is its most important measure for evaluating the success of an innovative product or service. Innovations are ultimately judged based on whether customers will actually pay for the newly developed product or service.

This company tested a recent innovation by first launching it as an autonomous startup company. This forced the company to adapt to customers, and prove that a market actually existed for its services. This sort of final-implementation-testing helped prove that there was a market for the product, and convinced the company to create a larger business case for the product to be sold to the wider public in the fall of 2011.

Best Practice 13: Learn from failure by reviewing unsuccessful initiatives.

Example – Correction of errors process

This company uses an electronic database to permanently capture and catalog its unsuccessful innovation initiatives. Early in the developmental stages of a new project, the innovation team will search this database for any commonalities to past projects. As the interviewee said, "We want to make sure we're not trying to reinvent the wheel every five years, so it's important for us to learn from our past mistakes."

Once an initiative has been terminated, the innovation team goes through a review process that it calls "correction of errors." The team meets and discusses what they learned and what they would have done differently to avoid the same problems. The discussion focuses on both the positives and negatives of the project and the ultimate goal is to establish a set of best practices for future projects. The correction of errors information is recorded and included in the project's cataloged file.

Best Practice 14: For service innovation in particular, consider reach, value per customer, and the rate of innovation.

Example – Metrics for service innovation initiatives

This company uses three broad metrics to measure its innovation success. First, it looks at the reach of an innovation (such as the number of people affected per innovation). The larger this number, the stronger the innovation. Second, it examines the value appreciation per customer; the higher the value of the innovation being delivered, the better. Last, it considers the rate of innovation (such as the number of innovations over time).

On a more detailed level, the company defines the value of an innovation by looking at its capability, efficiency, and relevance. Specifically, does the innovation increase capability and efficiency? The capability and efficiency metrics are numerical, driven by operations, research, and finance. For example, they might look at transactions per hour, or the number of customers per hour. Relevance is determined by customer research and the metrics are more qualitative. For example, they will track customer attitudes and use metrics similar to those they use in their customer satisfaction surveys.

Appendix F: Managing the Relationship between Innovation Activity and Ongoing Work

The Postal Service can successfully manage the relationship between innovation activity and ongoing work through close partnerships between the individuals responsible for disruptive innovation and the Postal Service's business units. Communicating early and often with business units that will eventually manage new products or services leads to a smoother handoff process that sets the new innovation initiative up for success. Not communicating can result in confusion on the part of business unit leaders who are responsible for taking over a particular innovation, as well as cultural resistance.

There is no perfect method for collaboration between business units and innovation teams as every organization is different, but the following examples describe how one company manages the relationships among the business units and innovation teams.

Best Practice 15: Collaborate with business units in order to create an effective handoff process.

Example – Integration with business units:

One of the last steps of the innovation process is to integrate the new product or service back into one of the existing lines of business. Although this step comes toward the end of the project, the integration of an innovation with a particular business unit actually begins much earlier in the process. After an idea passes the first stage gate (the COSTAR proposal), the employee or team responsible for the idea must get the signature of the Management Committee member from their respective business unit before they can develop a prototype and investigate the idea further. This first signature provides recognition from the business unit that it supports the funding and further exploration of an initiative. A second signature is required the next time the initiative goes before the Management Committee, providing more formal recognition and sponsorship of an idea by the business unit. By signing a proposal before the second stage gate the business unit agrees to pay 35 percent of all costs for the pilot test, assuming the idea gets approval from the Management Committee. This constraint helps guarantee that there is significant interest from the business unit to further develop an innovation.

By building these steps into the innovation process, the innovation team and the business units are forced to consider and discuss the hand-off process from the beginning of the project. The company has found that fostering such integration conversations throughout the project helps make the transition much easier following the conclusion of a successful pilot test.

Appendix G: Other Key Foundational Elements Necessary to Effectively Foster Innovation

The necessity for the Postal Service to devote individuals to innovation on a fulltime basis consistently emerged throughout the research as a key to innovation success. This is because setting aside specific roles frees individuals in those roles from the constraints of day-to-day operational work and creates a culture more conducive to innovation. There are multiple ways for the Postal Service to organize these roles, either embedded within various business units or as a centralized, stand-alone team. Thirteen of the 14 profiled organizations have roles dedicated to innovation.

Multidisciplinary teams are important because they will enable the Postal Service to leverage varied experiences and perspectives and perform key activities related to human-centered design. These activities include, but are not limited to, rapid prototyping (both with products and services), observational research, piloting, testing, and researching society to identify trends and future projections. The extent to which profiled organizations conduct these activities varies from those who outsource many of these tasks but conduct them on a regular basis to organizations with large teams that not only directly employ the right type of talent, but put a significant amount of effort into studying society now and what society will be like in the future.

The Postal Service must work to foster a culture of innovation that promotes collaboration and openness, risk taking, appreciation for customer experience, and a willingness to disrupt current lines of business. This requires strong buy-in and commitment stemming from leadership, all the way down to front-line employees.

The Postal Service should establish separate funds for disruptive innovation initiatives. Without separate funding, potentially lucrative initiatives may never be explored due to competing demands and priorities. Isolating funding will demonstrate the Postal Service's investment in and commitment to innovation and support for disruptive, game-changing initiatives.

Best Practice 16: Dedicate full-time staffing to innovation.

Example – The division between innovation and regular business activity

This company believes having a separate innovation group is a crucial element of its innovation success. The divide between innovation and regular business activity (and even research, more generally) is important because it frees the innovation team from operating under quarterly profit pressures, allowing the team to take a longer view and make longer-term investments. As one leader said, "If all of our innovation activity was aligned with today's business we'd never be looking beyond the end of our nose."

Both internal and external evidence underscores the necessity of the separate innovation group. The company used to operate with a decentralized

development model (for example, with innovation groups siloed within individual business units), but leadership eventually realized this was inefficient because there was duplication of effort across the company. The company also recognized that the largest, strongest, and most innovative companies — some of whom they compete with — all maintain centralized research functions and innovation teams.

A senior innovation executive pointed out that, while its innovation group comprises only 10 percent of the research and development organization, it generates over 50 percent of the company's patent applications.

Best Practice 17: Employ multidisciplinary teams to focus on innovation.

Example – Diverse innovation team

A large, multidisciplinary team focuses on breakthrough innovations for this company as well as a few external clients. The team includes anthropologists, sociologists, psychologists, problem designers, direction designers, engineers, and people with competencies in numerous other areas. Often they will extend the team to include outside specialists and experts, depending on the scope of the innovation.

The company believes that having a multidisciplinary team is important because it allows the innovation group to examine the world from many different angles. The variety of backgrounds on the team contributes to a better understanding of the social, cultural, and economic implications of its ethnographic research. Often the group's research is focused on a specific geographical area and the nature of the multidisciplinary team ensures that every societal, economic, political, and business dynamic is captured and understood. This multidisciplinary team is a crucial element of the company's research process and innovation success.

Best Practice 18: Develop a strong culture of innovation.

Example – Open culture and unique physical environment

In order to foster a strong culture of innovation, this company built an innovation center 30 minutes from its corporate headquarters. To distinguish it from the headquarters office, the center is casual, with no hierarchy and a collaborative environment where employees are not organized by functional teams. The organization believes this physical separation from headquarters is a crucial element to developing and nurturing a culture of innovation, because the innovation process needs to be completely free — both physically and mentally — from the company's usual constraints.

By creating a unique physical space and organizational structure, the company established a creative environment where the organization feels comfortable experimenting and opening their minds. Entire departments, such as Human Resources or Finance, periodically host off-site meetings at the innovation center simply to hold brainstorming sessions because the groups feel they can be more creative there. Creating this space where people can have open conversations and feel comfortable sharing their ideas has been a key to fostering a culture of innovation.

Best Practice 19: Fund innovation separately.

Example – Separate innovation budget

This company has a separate budget created specifically to fund innovation projects that go through the organization's well-structured stage gate process. The company needs a separate budget for these innovations because of how fast projects are processed and filtered through the different gates. Some ideas go from ideation to full pilot tests in as little as 3 months. Innovation would stagnate without this separate source of funds because the company would have to plan for each innovation project within the annual budget cycles of specific business units.

Appendix H: Management's Comments

JOSEPH CORBETT CHEF FINANCIAL OFFICER EXECUTIVE VICE PRESIDENT



December 15, 2011

SHIRIAN HOLLAND ACTING DIRECTOR, AUDIT OPERATIONS

SUBJECT: Innovation Best Practices Analysis—Draft Audit Report CI-AR-12-DRAFT

The United States Postal Service has been extremely innovative, particularly in its engineering and operational processes, in reducing costs and improving service. This process has resulted in innovative mail processing automation and methods that allows the US Postal Service to be more efficient than any other Post around the world, where we process and deliver 40% of the world's mail with less than 10% of the world's Postal employees. We have periodically held innovation symposiums where customers and mailing industry participants have been asked to provide new and innovative ideas. These ideas have been filtered and where they would contribute to lower costs, higher mail volumes or retention of mail volume, we have implemented these ideas. Over 100 such suggested innovations have been evaluated by management and by McKinsey and Co. a leading Management Consulting Firm. Severe regulatory and legal boundaries have been erected that stunt innovation and preclude the Postal Service from developing new products and services. We have been very direct and vocal with stakeholders that we require more flexibility in this area. We do believe that could more formally document and improve innovation and innovation process management throughout the Postal Service.

Recommendation 1:

Incorporate innovation planning into the Postal Service's strategic plan by March 30, 2012.

Management Response/Action Plan:

Management conditionally agrees with the report's overall recommendation to improve innovation planning processes. Management has been encouraging innovation throughout the Postal Service, focusing on achieving the right outcomes on strategic priorities.

Target Implementation Date:

This focus has been incorporated into the 2011 Annual Report to Congress and Comprehensive Statement on Postal Operations, approved by the Board of Governors on November 15, 2011. This integrated report includes a review of postal strategies, including an increased focus on innovation and innovation management.

Responsible Official:

Emil J. Dzuray, Director, Strategic Planning, was responsible for managing the development of the report. The FY2012 report will provide more details on the improvement of innovation management and on the results of high priority initiatives.

Recommendation 2:

Develop a time-phased plan to implement the first six best practices listed by September 30, 2012.

475 L'ENKAR PLAZA SW WASHINGTON, D.C. 20260-5000 202-268-5272 Fixe: 202-268-4384 www.ueps.com

Page 1 of 2

Management Response/Action Plan:

We are substantially more in-line with the six best practices than is implied in the report. 1) We have integrated our innovations process into our strategies as documented through our DRIVE process; 2 and 3) we hold substantially more meetings, symposiums, and out-reach programs than most other commercial entities, and as a result are constantly receiving new and re-cycled ideas for innovation. Some of these ideas have been implemented and many others have been discarded as they negatively impact Postal Finances at a time when we are having severe liquidity crises; 4) We have instituted the DRIVE process, which establishes a standard process and documentation for evaluating progress against initiatives we agree should be pursued; 5 and 6) innovation is and must be a part of our every day processes. We have requested Congress to provide the Postal Service with greater operational and market flexibility. If granted, we will be able to further expand our approach to innovation, particularly in product and service development.

More about DRIVE: We are implementing a disciplined and structured approach to managing multiple complex strategic initiatives (DRIVE) to more effectively develop and follow through on innovative solutions to high priority issues. The process incorporates many of the OIG recommended "best practices" such as:

- Encouraging sharing and cross-pollination of ideas across the postal community;
- · Partnering with stakeholders and others to gain new perspectives;
- Using multi-disciplinary teams;
- · Using a portfolio approach to encourage the right mix of initiatives in the pipeline; and
- Using milestones to manage risk and opportunity, leveraging data to estimate how an
- initiative will perform, and tracking the initiative's financial performance.

The DRIVE program, managed by the Strategic Management Office (SMO) under the direction of the Executive Leadership Team (ELT), is a continuous process with specific responsibilities, including timelines, milestones, and results. Progress is carefully tracked and reviewed regularly by the ELT.

Recommendation 3:

Develop a time-phased plan to implement the remaining 13 best practices over the subsequent 24 months after implementing the first six best practices.

Management Response/Action Plan:

As noted, the DRIVE process will include continuing focus on the improvement of the development and implementation of innovative solutions to high priority issues. Many of the 13 other noted items already receive Postal Focus.

However, as the process evolves and as the Postal Service obtains greater operational and market flexibility through legislative and regulatory change, management will incorporate more of the relevant recommendations outlined in the OIG report. We plan to accomplish in less than the 24 month period noted by the OIG, assuming that we obtain the flexibility to do so in a more effective manner.

This report and management's response do not contain information that may be exempt from disclosure under the FOIA.

Please address any questions concerning this report to Kent Smith at 202-268-6009.

Joseph Corbett

Page 2 of 2