Lean Advantage in Telcos

Reducing Complexity and Transforming Culture

Olaf Rehse, Astrid Rauchfuss, and Brian Roughan

July 2010
When managers at telecommunications companies look for cost savings today, few find much to cut. Most established providers have been through numerous rounds of cost cutting over the past few years, and emerging companies generally have designed their business models for efficiency. However, The Boston Consulting Group’s analysis shows that telecommunications is still one of the most inefficient industries, with as much as 40 percent of its cost basis eaten up by waste. This waste is difficult to see because it is embedded in telecom processes.

BCG has worked with numerous telcos around the world to address the root causes of waste, the most prominent one being complexity. Our approach complements traditional, top-down cost cutting with bottom-up shop-floor involvement. It creates cultural change that produces sustainable, continuous improvement. And it doesn’t force companies to choose between reducing costs and increasing quality. Our ultimate goal is to make telecom operations not only more efficient but also true strategic differentiators.

The Industry’s Challenge

The telecom industry is experiencing several tectonic shifts. Markets in Western Europe and North America are becoming saturated, and prices are declining. Hypergrowth in emerging markets such as India is slowing. The legacy telecom business model is splintering as agile new providers of equipment, networks, and services carve out niches. And many telephone companies are in the potentially expensive process of merging their fixed and mobile businesses.

Telcos need to continue searching for growth, but equally important, they must find ways to secure or improve earnings by optimizing their operations. Most providers are far from achieving operational excellence. In fact, BCG has found tremendous waste: as much as 30 percent of costs are incurred because of rework (correcting process or product defects), overproduction (producing items before they are required), inventory (storing products), and overprocessing (using more resources than necessary). (See Exhibit 1.) This is true not only for incumbents in saturated markets, such as North America, but also for companies in emerging markets, such as Eastern Europe. We believe the telecom industry could save 25 to 30 percent of total operating expenses by eliminating waste that still resides in its processes.

Traditional cost-cutting approaches will not be able to capture the enormous potential savings. One reason is that the low-hanging fruit has already been harvested. Additionally, many conventional methods are not bold enough to meet current challenges because they exempt sacred cows—such as outdated innovation strategies—from necessary scrutiny. Other tactics aim to cure the symptoms rather than address the root causes of waste. And still other approaches lack end-to-end focus. Waste cannot be compartmentalized; inefficiency in any one process tends to spill over into others. (See Exhibit 2.)

Perhaps most important, few cost-cutting programs produce lasting cultural change. They target specific kinds of waste on a short-term or one-off basis and don’t achieve the larger goal of enabling organizations to improve continuously in terms of operational excellence. Therefore, traditional cost-reduction efforts don’t deliver significant and sustainable competitive advantage.

Combating Complexity

Complexity is the key driver of cost inefficiencies in both telecom processes and business models. BCG’s Lean Advantage Telco Complexity Index shows that complexity is more than a full order of magnitude greater in typical telecom operators than it is in a lean, fully optimized operator. (See Exhibit 3.) An
Exhibit 1. Waste Accounts for a Substantial Share of a Typical Telco’s Process Costs

Rework consumes approximately 30 percent of the resources used for deploying technical infrastructure.

Exhibit 2. Inefficiency Spreads to Other Processes

Source: BCG analysis.
Eastern European mobile operator, for example, generated complexity by introducing more than five new products, pricing schemes, or features a week, which drove sales and customer service costs up exponentially.

Using BCG’s Lean Advantage methods, some telcos have reduced complexity and, not coincidentally, increased earnings. They also have improved service quality—an important strategic differentiator. Since first adopting Lean Advantage methods in 2007, an established Western European telephone company has cut the total cost of its call-center and technical-field-force units by about 40 percent while substantially increasing customer satisfaction.

Lean Advantage concepts are an extension and refinement of the best lean-manufacturing ideas. Unlike other lean approaches, the Lean Advantage methodology is highly flexible and can be customized for clients’ individual strategic goals and situations. It uses precise analytics and intense employee engagement to produce a culture of continuous improvement. Pilot programs demonstrate Lean Advantage principles and show results quickly, usually without large capital expenditures.

### A Vision of the Lean Telco

Lean Advantage is conceptually more ambitious than previous lean approaches. It views an entire telecom organization and its operating model through four distinct yet interrelated frameworks, or “lenses.” (See the sidebar “Lean Advantage in Telcos: Four Lenses and 11 Key Principles.”)

**The Strategic Lens.** This framework is used to set the overall objectives for transformation. Establishing these goals involves identifying and managing the strategic tradeoffs that drive a company’s operating model. (See Exhibit 4.) For instance, a company may be wedded to its self-image as a technological innovator without fully appreciating how that choice affects the cycle times of product innovation and marketing—that is, the frequency with which new products are developed and campaigns are launched. Lengthy cycle times can increase the complexity and costs of a company’s operations. The strategic lens is also used to identify the dimensions of operational excellence that matter to customers. By focusing on these two areas, companies can build substantial competitive advantage.
**The Operations Lens.** This framework helps a company prioritize available methods, or levers, for achieving excellence in its processes and systems. An important principle of the operations lens is reducing the complexity of input, production, and output for each process by, for instance, scaling back the number of process variations and service levels. This tenet applies to all telecom functions including marketing, technology management, provisioning, and fault repair. Another key principle is increasing “first time right” results. For example, a company might apply aggressive filters early in its innovation process to identify likely failures sooner. A third principle is optimizing the level and quality of resources for core processes, overdelivering only at carefully selected customer touch points.

**The People Engagement Lens.** Involving employees and building the right culture are often the missing links in transformation efforts; however, they are the foundation for continuous improvement and long-lasting change. An important principle of the people engagement lens is fostering cooperation across functions and departments. Given that telecom production systems are highly integrated, it is essential to align the tasks and objectives of all employees involved in an end-to-end process. For example, by having a product launch managed by a cross-functional team that includes employees not only from marketing and sales but also from customer service, a company can avoid typical service shortcomings such as agents being unprepared to address customer requests and call centers being too understaffed to handle call volume.

Cross-functional cooperation should also aim to automatically correct other departments' failures—failures that can add up and ultimately result in poor service.

Cooperation can be improved by using feedback loops that make employees aware of and accountable for the impact of their actions on operational excellence. For example, to help a company enforce order-entry discipline, BCG installed a feedback loop between the customer-service and billing departments and sales. By opening the lines of communication, employees understood their effect not only on the process they were overseeing but also on other processes.

**The Performance Governance Lens.** Viewing an organization through this lens helps a company establish the correct organization structures and employee roles, as well as select the key performance indicators (KPI) to measure. Roles should be defined in a way that enables employees to deliver first-time-right results. For example, telcos should empower front-office agents to handle standard customer complaints by giving them access to the information required. Enabling front-office agents to solve customers’ problems reduces the number of issues referred to the back office or to a higher support level.

---

<table>
<thead>
<tr>
<th><strong>The Strategic Lens</strong></th>
<th>1. Fully leverage telecom operations to build competitive advantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Identify and actively manage strategic tradeoffs that drive the operating model</td>
<td></td>
</tr>
<tr>
<td><strong>The Operations Lens</strong></td>
<td>3. Minimize complexity of input, production, and output for each process</td>
</tr>
<tr>
<td>4. Increase first-time-right results</td>
<td></td>
</tr>
<tr>
<td>5. Optimize the level and quality of resources for core processes</td>
<td></td>
</tr>
<tr>
<td>6. Adjust service levels to overdeliver only at selected touch points</td>
<td></td>
</tr>
<tr>
<td><strong>The People Engagement Lens</strong></td>
<td>7. Foster cooperation across functions and departments</td>
</tr>
<tr>
<td>8. Make employees aware of their impact on operational excellence</td>
<td></td>
</tr>
<tr>
<td><strong>The Performance Governance Lens</strong></td>
<td>9. Organize governance to emphasize accountability and the first-time-right approach</td>
</tr>
<tr>
<td>10. Simplify and streamline management structures to expedite decision making</td>
<td></td>
</tr>
<tr>
<td>11. Consolidate redundant organization structures and physical locations</td>
<td></td>
</tr>
</tbody>
</table>
Telcos also should aim to reduce the complexity of management structures; layers should be eliminated and management roles and titles aligned. BCG helped a North American telco reduce the number of management layers from 14 to 8, thus driving accountability, particularly of middle management, and simplifying decision-making processes.

Additionally, redundant organizational units and physical production sites should be consolidated. This eliminates unnecessary management functions and enables support functions, such as call center training, to serve a larger group of employees. Reducing the number of organizational units and sites also makes it easier to create uniform work rules and encourage compliance with standard processes, both of which can reduce the complexity of the operating model.

The process of lean transformation has five steps, which can be adapted to specific client situations:

- **Company Assessment.** A Lean Advantage initiative begins with a detailed assessment of a company’s current condition using the proprietary BCG Lean Telco Health Check tool. A company’s status quo is compared with the industry’s best-in-class and average performers along a number of quantitative and qualitative dimensions covering the four lenses of the Lean Advantage framework. Strengths as well as potential areas for improvement are identified. The evaluation asks questions such as, Are processes defined to minimize the number of steps, manual interventions, and interfaces between departments? Is waste measured and brought to the attention of the employees generating it? Are there different processes for handling standard and nonstandard incidents, such as customer complaints?

- **Program Setup.** In this step, Lean Advantage experts define a specific program for improvement. This process involves considering the strategic tradeoffs a company may have to make. For example, does the company want to meet its competitors’ cost benchmarks or does it want to set new standards? How much collateral damage, such as lost revenue, is the company willing to accept in the course of change? After answering questions such as these, Lean Advantage leaders prioritize areas for improvement and select the departments and individuals responsible for implementing the subsequent optimization phases. Carefully choosing those involved is of the highest importance, since the goal is not only to build a lean operating model but also to do so with a small number of fully empowered, fully accountable people driving the change.
Pilot Initiation. The heart of the Lean Advantage program is a well-orchestrated set of pilot initiatives that combine top management’s guidance with shop floor involvement. (See Exhibit 5.) Selecting the right pilots and staffing them with the right people is essential. A pilot emphasizes taking an end-to-end view of a process and mobilizing all stakeholders. For example, a pilot to optimize a technical-service process should involve customer service agents as well as the technical field force and technical back-office staff. An important goal is building momentum with early successes. Pilot programs are essential to identify, enable, and engage the core group of people who will act as change agents and drive the subsequent rollout of the Lean Advantage program.

Program Steering. A program management office and a steering committee track the progress of a pilot program. Tools for monitoring a pilot include a “pulse check” survey, which is an anonymous Web-based survey that measures employees’ awareness of and attitude about the program. During this step, the program management office also initiates, verifies, and drives dedicated measures, such as consolidating locations, that must be approved by top management.

Continuous Growth. Last, the company integrates the Lean Advantage concept into its regular operations. Management establishes processes for sharing best practices and acting on data from feedback loops. And the change agents roll out pilot processes to other operations. Using BCG’s KPI dashboard, a proprietary software tool, the company constantly monitors operational excellence and adjusts evaluation and compensation models, thus driving the cultural change that creates the foundation for long-term continuous improvement.

Using Lean Advantage to Boost Customer Satisfaction

BCG implemented its Lean Advantage concepts at two telcos experiencing excess costs and low customer-service ratings. The results of these client engagements are presented in the following case studies.

A New Customer-Service Model

A Western European telephone company dominated its home country in fixed, mobile, and broadband telephony. The market, however, had become saturated. A key problem for the company was poor customer service. For example, a customer with a connection problem called the company five times and spoke to 12 people in several departments, and still her problem remained unresolved.

Viewing itself through the four lenses of the Lean Advantage approach, the telephone company saw that it did not need to retool its business model entirely. It did, however, need to align its financial and

Exhibit 5. Combining Management’s Guidance with Shop Floor Involvement Builds Momentum

Source: BCG Lean Advantage methodology.
operational incentives, reduce complexity, and create a more effective model for its customer-service efforts. That new model demanded improving performance by following a first-time-right approach.

The concept was tested by phasing in a six-month pilot program. A 200-member regional-sales-and-service team (including call center sales and service, and the technical field force) was provided with new IT authorizations and improved, clearer work instructions. In particular, the team was directed to separate the standard customer-service incidents from the exceptions early in the process, and treat them differently. The team also was introduced to the first-time-right methodology—which encourages collaboration across functions—and instructed to use it to solve customers’ problems.

At the end of the pilot program, the most important key performance indicators showed significant improvement. Customer contact was reduced in all categories, and customers’ experiences were markedly better. The time to repair a digital subscriber line (DSL) failure was shortened from two days to four hours. The number of customers calling for a status report on a repair was reduced by about 50 percent. And the company was able to reduce the number of employees in its customer-contact and operations departments by 25 percent while dramatically improving its service levels. All in all, this telephone company cut its customer-service costs by 25 percent per customer.

**Reinventing a Technical-Service Process**

A large North American communications provider of Internet services wanted to streamline its technical-service operations, particularly the provisioning process for its broadband service. The current cumbersome provisioning process was driving up costs and delaying delivery, which often led to dissatisfied customers, canceled orders, and lost revenue.

The company undertook a detailed assessment of operational improvement opportunities using the Lean Advantage approach. It evaluated five functions involved in receiving orders for broadband service and delivering it to customers: sales, customer service, technical back-office support, field force operations, and equipment management. The teams focused on end-to-end process optimization around three main levers: removing interfaces between departments, reducing work by using automation to simplify processes, and identifying errors at the source and empowering employees to make fixes.

Key to improving operations was reducing the number of employees who touched an order. Job overspecialization had led to a typical order being handled by ten people. Each time an order was passed to a person, it took that individual up to 25 percent of the total time he or she spent to become familiar with the order—time that was essentially wasted. Additionally, if an error was found, there were no incentives to fix the problem. Instead, the order was sent back to the beginning of the process, causing major delays and rework.

BCG introduced a new process that reduced the number of roles by 50 percent and increased each team member’s responsibilities. We also aligned incentives with the goal of solving issues quickly. Using the Lean Advantage methodology to evaluate the five major organizational functions of the client’s operations, the company improved its cost basis by 40 percent and delivery time by 35 percent.

**Grasping the Opportunity**

The challenges for—and the pressures on—telecom operators currently and for the foreseeable future are enormous. The industry is going through large structural shifts. Customer behavior is changing as markets become saturated. Service is more important than ever. The phenomenal and swift growth of the past few years is over. Technology, as always, is changing rapidly.

The Lean Advantage methodology is essentially a tool for companies to harness change and direct it toward specific strategic or tactical ends that impact their operations. Providers that can learn the lessons of Lean Advantage will find not only economic savings but also greater employee engagement and satisfaction, not to mention happier and more loyal customers. Operators that continue to employ older methods exclusively may well find that they have let a good crisis go to waste.
About the Authors

Olaf Rehse is a partner and managing director in the Düsseldorf office of The Boston Consulting Group. You may contact him by e-mail at rehse.olaf@bcg.com.

Astrid Rauchfuss is a principal in the firm’s Munich office. You may contact her by e-mail at rauchfuss.astrid@bcg.com.

Brian Roughan is a principal in BCG’s Boston office. You may contact him by e-mail at roughan.brian@bcg.com.

Acknowledgments

The authors would like to thank Peter Carbonara for his editorial guidance during the preparation of this paper and Katherine Andrews, Angela DiBattista, Kim Friedman, Trudy Neuhaus, and Sharon Slodki for their contributions to its editing, design, and production.

The Boston Consulting Group (BCG) is a global management consulting firm and the world’s leading advisor on business strategy. We partner with clients in all sectors and regions to identify their highest-value opportunities, address their most critical challenges, and transform their businesses. Our customized approach combines deep insight into the dynamics of companies and markets with close collaboration at all levels of the client organization. This ensures that our clients achieve sustainable competitive advantage, build more capable organizations, and secure lasting results. Founded in 1963, BCG is a private company with 69 offices in 40 countries. For more information, please visit www.bcg.com.

© The Boston Consulting Group, Inc. 2010. All rights reserved.
7/10