

1-1-2009

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Original Citation

Gowen II, Charles R. & Johnson, James M. (2009). Business process improvement in equipment finance. Vol. 27 (Number 2). ISSN: 0740-008X.

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JOURNAL

OF EQUIPMENT LEASE FINANCING

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VOLUME 27 • NUMBER 2 • SPRING 2009

BUSINESS PROCESS IMPROVEMENT IN EQUIPMENT FINANCE

By Charles R. Gowen III, PhD, and James M. Johnson, PhD

Can process improvement methods be used in financial services (leasing) firms? This article describes the experiences of five companies that use process improvement methods successfully to increase performance and reduce costs, thereby gaining more efficiency.

THE OPPORTUNITIES AND CHALLENGES OF EMERGING MARKETS

By Shawn D. Halladay, Jonathan L. Fales, and Rafael Castillo-Triana

Equipment leasing in emerging markets potentially is a major business opportunity for international lessors. Although legal and regulatory frameworks continue to evolve in these markets and there is no single, successful business model, study and preparation will pay off for motivated lessors.

KNOCKING DOWN (GREAT) WALLS: AN UPDATE ON THE CHINESE EQUIPMENT FINANCING MARKET

By Jonathan L. Fales and Jason Zhou

Chinese large-ticket financing and vendor programs both should continue to grow over the next two to three years, even with the current worldwide economic slowdown. This article updates the Great Walls study the Foundation published in 2005.

TRANSPORTATION EQUIPMENT FINANCING: TRACKING THE FORCES SHAPING THE MARKET

By Mark Lauritano

A brighter day is coming for those who can adapt to the current environment and take the long view. Rail and marine should lead the way. But the first signs of a turnaround in transportation financing are not likely to appear until the end of 2009.

WINNER ANNOUNCED FOR 2008 ARTICLE OF THE YEAR



Business Process Improvement in Equipment Finance

By Charles R. Gowen III, PhD, and James M. Johnson, PhD

The well-known financial economist Fischer Black (1975) wrote on the efficiency and competitiveness of financial institutions over 30 years ago. His general observation was that in an industry such as banking or equipment leasing, facing perfect competition, the most efficient companies will earn competitive rates of return and less efficient companies will go out of business or be acquired. Hence, this article discusses some of the branded methodologies for improving competitiveness and reports on our qualitative survey of process improvement practices of five equipment leasing companies.

The competitive advantage of an equipment leasing company can be enhanced by the application of a business process improvement (BPI) program. Process improvement initiatives have recently attracted the widespread attention of transactional companies due to their potential for enhanced efficiency. More than 80% of the U.S. gross domestic product relies on service industries, and 30% to 80% of service firm costs are estimated to be some form of waste resulting from inefficiency (George, 2003).

In this paper, we discuss the nature of BPI programs, our study of several leasing firms using BPI, and the findings of our survey. The five equipment financing companies we interviewed used a variety of BPI methods to tackle various customer and process issues. None of the

firms used a pure branded method, although several of the executives had been employed previously in financial services companies that used branded methods.

Our purpose here is not to be an advocate for any particular business process improvement method but

to acquaint the reader with the core concepts and deployment strategies of these structured methods. Toward that end, we begin by summarizing two of the current branded methodologies, that is, Six Sigma (SS) and lean management.

BUSINESS PROCESS IMPROVEMENT METHODOLOGIES

The purpose of BPI is the redesign of processes to result in superior productivity, speed, quality, and low cost, which leads to greater cash flow, profitability, customer satisfaction, and competitive advantage (Womack and Jones, 2005). Some BPI program drivers and results appear in Table 1 (next page). BPI can consist of a combination of branded methods, such as Six Sigma

and lean management, which are mutually reinforcing when they are implemented simultaneously. Lean improves operations productivity and speed, whereas Six Sigma ameliorates quality and low cost (Arthur, 2007).

Lean methods can be enhanced by Six Sigma's focus on organizational culture, program infrastructure, customer needs, and reduction of process variation. Six

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Sigma could benefit from lean's pursuit of waste identification, process speed (or cycle time improvement), and quick, action-oriented events (George, 2003). Although lean management and Six Sigma were originated by manufacturing corporations (Schonberger, 2008), the recent trend of financial service firms adopting BPI is driven by the enhanced advantages resulting from combining lean and Six Sigma practices (Hayler and Nichols, 2007).

Table 1.**Key Drivers and Outcomes of BPI**

Key drivers	Key outcomes
Quality	Cash flow
Low cost	Corporate profitability
Productivity	Customer satisfaction
Speed	Competitive advantage

Six Sigma Initiatives

Six Sigma is a process improvement methodology exploited by many leading financial service companies. It is a systematic, data-driven approach that finds and eliminates errors in processes by focusing on the results most critical to customers. The term SS refers to the statistical measure of a quality level equivalent to 3.4 or fewer defects per million opportunities. The SS infrastructure depends on teams of employees who are highly trained in statistically oriented practices for process improvement projects (Summers, 2007).

Six Sigma projects are selected based not only on customer requirements but also on their ability to achieve clear financial returns for the organization. A recent survey reveals that SS is used by more than 50 financial service firms (Hayler and Nichols, 2007) because it enhances transaction accuracy and speed while reducing costs such as search, information technology, bargaining, decision, and monitoring costs (Arthur, 2007).

Six Sigma was developed as a quality improvement program by many firms in the manufacturing sector. Motorola pioneered SS and won the Malcolm Baldrige

National Quality Award in 1988, largely due to its SS initiatives. Other companies such as General Electric and Allied Sigma helped to provide a significant amount of credibility and media attention to the SS concept. Since then, SS has become a popular methodology for process improvement across a range of manufacturing and service industries.

The SS roadmap for process improvement of financial companies begins with examining a firm's services from the customers' viewpoint. Marketing research dictates what impact the "voice of the customer" (VOC) technique would have for the company (George, 2003). Then data-driven practices, such as quality function deployment, demonstrate how the VOC affects the improvement of services. At Wachovia Corp., the application of VOC within a SS program drove the customer satisfaction rating up by 20%, customer loyalty up 26%, and customer attrition rate down from 20% to 12%, with 16% annual earnings growth over five years (Hayler and Nichols, 2007).

The SS team infrastructure depends on specially trained participants. The key roles in SS teams typically include Champions, Master Black Belts, Black Belts, and Green Belts. The job of executive Champions involves working with Black Belts to identify possible projects. Champions also provide support and validate the results at the end of the project. Master Black Belts are experienced Black Belts who serve as mentors and trainers for new Black Belts. During a year of full-time training, Black Belts are trained in advanced statistical techniques, team-building, and project-selection skills and are committed full time as the leaders of a SS team.

Green Belts are trained in basic quality tools and are assigned to SS teams on a part-time basis.

Typically, larger financial services companies, such as American Express, start with a core group of employees and expand training programs over a few years to include all employees (Hayler and Nichols, 2007). For example, the main purpose of an extensive training program at Capital One was a culture transformation, which has provided dramatic results from 2005 to 2007, such

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as a 39% reduction in the cost of a new account, 54% lower servicing cost in existing accounts, and customer satisfaction improvement of 10% (Immaneni et al., 2007).

Problem-solving projects are another integral part of the SS methodology. The objective for a SS team is to analyze a problem and develop a permanent solution. The problem-solving methodology used in SS is DMAIC, which stands for Define, Measure, Analyze, Improve, and Control, and incorporates a wide variety of statistical tools and process improvement techniques. Started in 2001, Bank of America's SS program resulted in decreasing errors by 24% in all customer channels and by 88% in electronic channels, reducing transaction cycle times by more than half, adding \$2 billion in profit, and increasing "customer delight" (defined as a rating of 9 or 10 out of 10) by 30% (Cox and Bossert, 2005; Hayler and Nichols, 2007).

For the SS program initiated in 2001 at the retail services and consumer lending divisions of HSBC, N.A., customer complaint projects saved \$1.6 billion annually; training guideline improvements reduced turnover by 10% and yielded \$1.9 billion annually; and sales leads priorities projects produced \$9.5 billion annual savings (Gordon, 2006). Alternatively, many companies have developed varia-

tions of DMAIC, such as FASTER (Flow, Analyze, Solve, Target, Execute, and Review) at Countrywide. These methodologies have produced \$244 million in productivity gains and \$76 million in operating profits (Hayler and Nichols, 2007).

Lean Management

Likewise, the importance of lean management has grown considerably in recent years, and lean programs have emerged as a major source of competitiveness. The main motivation for lean methods has been relentlessly pursuing waste elimination, lowering costs, and increasing the speed of delivery of products and services to the customer (Arthur, 2007). Although the Toyota Production System is credited as the origin (Liker, 2004), lean programs have also proven highly effective for service companies. Some differences among SS, lean, and BPI (by combining SS and lean) initiatives are presented in Table 2.

Lean management consists of three sets of principles: core tenets, waste sources, and the 5S principle (defined below). The nine core tenets of lean are:

1. Assess customer value.
2. Convert business processes to customer pull systems.

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Table 2.

Characteristics of Three Process Improvement Methods

	Six Sigma	Lean	BPI
Platform	1-4 month project	1-5 day event	Project or event
Main motivation	Reduce variation, innovation (DFSS), effectiveness	Variation, innovation, effectiveness	Customer value creation, corporate culture change
Competitive advantage	Improve quality, productivity	Improve speed, cost, productivity	Sustainable competitive advantage
Metrics	Defect rate	Cycle time	Customer value-added
Organization	Six Sigma teams	Kaizen teams	BPI Teams
Techniques	DMAIC, Design for Six Sigma	Five Tenets, value stream mapping, future state map, 18 building blocks	Combination of methods, such as Six Sigma and lean
Human resource management	Train selected employees as Black Belts	Train all employees in basic concepts	Train some employees in BPI concepts

3. Switch to one-transaction flow.
 4. Level out the work load.
 5. Stop and fix problems immediately.
 6. Standardize processes.
 7. Use visual controls.
 8. Use proven technology.
 9. Compete against perfection, not competitors.
- (Arthur, 2007)

Lean management identifies and reduces seven sources of waste: overprocessing that does not add customer value, transportation or unnecessary movement of services, motion or excess time for employees, excess work-in-process inventory, waiting time delays, defects or errors, and overproduction of goods or services (George, 2003). Finally, the 5S principle includes Sort for necessity, Simplify the workplace, Shine for cleanliness, Standardize processes, and Sustain standard processes (George et al., 2005).

The implementation of lean management involves several distinctive techniques, two of which are “value stream mapping” and “lean work cell” design. Value stream mapping visually displays the process flow, distinguishes between value-added and non-value-added activities, assists in pointing out root causes of waste, identifies problems and opportunities for improving workflow, and shows how the future workflow would look (George et al., 2005). Lean work cell design assembles all of the necessary work activities for a process into a cell layout, such as an emergency room with an X-ray machine, a CT scanner, and lab testing equipment to reduce the patient’s transportation time for faster diagnosis (Arthur, 2007). Lean projects are implemented by a lean team, often an entire small department with process improvement experts, as a lean or Kaizen event (Arthur).

The workflow process for an area is redesigned in a five-day Kaizen as follows:

- First day to train team members and define the problem(s)
- Second day to measure and analyze workflows, cycle times, and value stream maps
- Third day to generate and test improvement alternatives

- Fourth day to simulate and deploy the selected solution
- Fifth day to evaluate and report out to management

For example, Bank One’s National Enterprise Operation (NEO) launched lean management based on the Kaizen event approach in 2002 and fully implemented it by 2004, when it was acquired and became a division of JPMorgan Chase. The NEO lean system is characterized by a limited set of Lean techniques, voluntary employee involvement, and collaborative use of lean experts who coach Kaizen teams, while avoiding massive employee training and teams of only experts (George, 2003). The results include cycle time reductions of 30% to 70%, improved revenue, and decreased costs of thousands of dollars per event. The disadvantages concern time-consuming events, difficulty in effecting physical workplace changes, and sustaining lean management as a priority among other corporate initiatives.

BPI Scope: Organization-wide or Focused?

A fundamental choice for BPI deployment is whether the scope of implementation should be organization-wide or on a SWAT team-like basis. The full Six Sigma model argues for corporate-wide training of employees and implementation of projects (Hayler and Nichols, 2007). Alternatively, other evidence supports a focused approach—a SWAT team strategy—of training only limited groups of employees for resolving the most urgent problems (Arthur 2007, p. 230). The contrast between the two approaches is summarized in Table 3 (next page).

As in the Bank One example above, the lessons learned from this successful program involve autonomy for each business unit, tailoring the BPI model for each organization, deploying at a pace that suits each unit’s readiness, avoiding mandatory use of BPI, cross-functional problem-solving, and preference for lean methods as opposed to Six Sigma, which requires robust metrics (George, 2003). Similarly at JPMorgan, a SWAT team approach resulted in more than \$1 billion in pre-tax net benefits in 2002 and 2003. Then the program was integrated with JPMorgan’s corporate efficiency programs in 2004 (Hayler and Nichols, 2007).

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Table 3.

Implementation Characteristics of Two Approaches to BPI

	Organization-wide approach	SWAT team approach
Purpose	Culture change	Problem-solving
Project choice	Deterministic	Situational
Participation	Mandatory	Voluntary
Financing	High investment	Limited risk
Strategy	Maximizing return	Optimizing return
Approach	Full toolbox	Selected tools
Structure	Bureaucratic	Opportunistic

BPI methods are just as applicable to a small business, as illustrated by Table 4. By deploying these methods for a small business, Mesa Products Inc. achieved above industry and competitor business results, such as customer and employee satisfaction, productivity, and return on investment, as well as winning the prestigious Baldrige Award in 2006 (Daniels, 2007).

STUDY OF LEASING FIRMS

We employed a telephone interview methodology to collect information about five firms in the U.S. leasing services industry. We contacted executives in an independent equipment financing company, two captive firms, and two bank-related firms. The seven resulting interviews were initiated in August 2008. All firms requested to remain anonymous.

The structured telephone interview method was chosen to yield richness of information for certain key issues, although there is limited quantification of data. The interviews focused on several questions for each of the four main issues: descriptive characteristics of the BPI program, project success stories, program drivers, and advice to firms considering the adoption of a BPI program.

In terms of the characteristics of the program, there were striking differences between the captive and independent corporations. The captive firms started BPI

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Table 4.

Deployment of BPI for a Small Business

Steps for designing BPI for a small business:

- Assess the potential readiness of managers and employees for organizational change.
- Build organization-wide commitment by CEO promotion of the BPI program.
- Train managers in BPI principles, then managers train subordinates in BPI tools through a cascading coaching process of knowledge transfer and a simple trial project.
- Be highly selective of initial projects so there are early wins.
- Develop a “pull” training system to provide BPI knowledge and skills as needed, widening the pool of managers and employees who are competent in BPI practices.
- Engage employees, in successively lower levels of the firm, as project team leaders by ownership of progressively complex and rewarding projects.
- Recognize employees and managers who adopt the most effective BPI practices.
- Build BPI successes into the corporate culture and reward system.
- Monitor program effectiveness periodically and become increasingly selective of new projects and BPI team leaders.

SOURCE: Arthur, Jay. *Lean Six Sigma Demystified*. New York: McGraw-Hill Professional, 2007; Byrne, George. “Ensuring optimal success with Six Sigma implementations.” *Journal of Organizational Excellence*, 22, no. 2 (2003): 43–50; Daniels, Susan E. “From one-man show to Baldrige recipient.” *Quality Progress*, 40, no. 7 (2007): 50–55.

initiatives several years before the independents began theirs. Another disparity was the captive firm’s manda-

tory participation for all departments, as opposed to the bank-related and independent companies’ policy of voluntary departmental participation. Generally, the captive firms had implemented an organization-wide model, whereas the bank-related

and independent companies deployed the SWAT team type of BPI program structure.

SURVEY FINDINGS

Our structured interviews revealed several insights about successful deployment of a BPI program. The descriptive characteristics suggested two distinctly different alternatives for BPI implementation: the organization-wide model and the SWAT structure, as discussed above. Secondly, there were a variety of program drivers that led

to success stories for these BPI initiatives. The advice our experts had for firms considering the adoption of a BPI initiative will be discussed toward the end of this article.

Program Drivers and Successful Projects

One of the equipment financing firms was looking at ways to improve its cycle time (the response time with customers that is required to close a transaction) and employed its BPI methodology to do so in an organized way. The company believed it could reduce cycle time but needed to have the expectation that resources invested in doing so would reap a financial return. The bank's borrower and lessee customers were saying that some of their competitors "do it better." The problem and scope were defined, and then the bank worked on the problem with a BPI team. The result was a reduction in cycle time and greater consistency in the way transactions were processed. The payoff was a higher conversion rate (the proportion of business worked on that resulted in booked business) and more profitable volume.

A second financing firm was a multidivision company that was assessing its varied financial services businesses, which included small-ticket transactions, vendor programs, and direct financing business with customers. For various reasons, individual business units were using their own process and showed little interest in cooperating with one another to streamline their processes. Customers complained that they had to go to a different contact person for each type of business they were doing with the company.

Eventually, this became a mandated project to push the various units onto one streamlined platform. The company does not use a major branded process improvement methodology, but a number of executives had previous experience with Six Sigma financial services companies. Using an unbranded process improvement tool borrowing some SS tools, the company was able to map out existing processes to see how they might be integrated. The result was to combine business groups, one at a time, and move them onto a new, common platform.

As a result, customers now have a consistent experience and one point of contact, regardless of what financial services mix they are buying from the company.

In contrast, another firm with a successful vendor program was having difficulties in setting up new dealers efficiently. For various reasons, the firm needed to rework many dealer applicants to "get it right." A project was launched with the goal of greatly reducing rework with dealers. Much energy went into examining the processes to detect the causes of rework—not getting the complete set of information from a dealer the first time, not processing information consistently, and so forth.

The company now has implemented a successful program in which its dealers grade it each year against the best service they received from the company's competitors.

A fourth company suffered from an inefficient process for collecting interest on time. This became a project for one of the leasing firms, with the goal of reducing the time spent on this function. The SS project team discovered that, over time, the company was using more and more methods to perform the same function. Years ago, the leasing firm would send out a reminder letter to customers that were

approaching a due date. When faxing technology became prevalent, the company began to mail notifications to customers and fax notices for the same issue. As email came online, the company added that method of sending their customers the same information.

The BPI team found that not only was the company using redundant methods for collecting interest but also that customers were becoming frustrated, being bombarded with multiple notifications. The team was able to streamline the notification process, which resulted in reducing the time spent by approximately 85%, while realizing virtually the same on-time payment percentage and improving customer relations.

In responding to customer feedback, the fifth leasing company developed a project around "ease of doing business." From customer interviews, the project team realized that the company received high ratings only once the customer was on board. The typical complaint

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was how difficult the company's processes were for a prospect looking to become a customer. The team examined all aspects of how the leasing company originated business and defined a series of projects to improve customer responsiveness.

This leasing company was able to reduce the number of documents it required for a transaction and made significant headway on instituting standardized templates. The net result was a significant improvement in streamlining the customer closing process. Now the customer need talk with only *one point of contact* rather than being referred to five different people, depending on what information the customer wanted and for which product line.

Advice for Starting a BPI Initiative

The executives interviewed generally agreed on the importance of establishing BPI program goals and project objectives up front as well as specifying the "end game." Several executives emphasized that a key goal should be to change the culture of the organization by training and causing employees to think differently regarding how they go about their work. One executive indicated the value of viewing this process as a journey, not a quick fix or an add-on function.

The five leasing firms indicated that getting outside assistance is important and should take place at the outset of the initiative. Consultants and facilitators should be engaged up front to help the organization get started in parallel with training of the organization's personnel. Interestingly, the executives from organizations that used brand-name process improvement methodologies did not recommend that newcomers buy into an off-the-shelf system but rather that they build to suit their company's circumstances.

Because we interviewed very different organizations, using both customized and branded process improvement methodologies, the advice we gathered for setting initial expectations differed significantly. Some executives indicated that no savings should be expected for more than a year due to the significant up-front invest-

ment in training and organizational change. One said, "Do not underestimate the commitment front-end." Another executive cautioned, "Be leery of a fast payoff" and be mindful of third-party promoters telling tales of big wins early in the process.

At the opposite end of the expectations spectrum, an executive recommended starting with some small projects, suggesting that simpler events yield quick wins and keep personnel focused. He indicated that large, long-term projects have unintended negative effects, such as personnel becoming bored, losing focus, and struggling with the large project pieces.

However, there was agreement that a successful process improvement program should be woven into the fabric of the organization rather than as a standalone entity. Three comments summarize the advice we received about BPI organizational change:

1. It should not be viewed as an add-on, but a different way of working.
2. Process improvement is a way of thinking.
3. It should be ingrained in the organization's culture to make it feel natural. Keep it simple. Take the best of brand-name process improvement methodologies and develop a process that will feel natural to the company.

Some of our interviewees came from organization-wide SS environments and cautioned against allowing the process to take over and become its own bureaucracy. The seven executives with whom we talked recommended proceeding with less formality than the original SS system in which several of them were trained. They indicated that, as their organizations transformed, it did not appear necessary to be as rigid in implementing BPI. One executive warned, "Don't let the process take on a life of its own. It's a tool, it's not the business."

CONCLUSION: THE IMPORTANCE OF BPI

The literature for the financial service industry and our study suggest that BPI may be a productive tool for

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achieving, increasing, or sustaining a competitive advantage. Several success stories of financial service companies demonstrate the benefits of BPI methods, such as voice of the customer and BPI projects for improving quality and cost-effectiveness. BPI tools have also been successfully deployed by financial service corporations for improving productivity and speed, such as customer delivery time.

Our study of five leasing firms reveals that each company found BPI to be beneficial in improving organizational performance as each defined it. The choice of the type of program structure is critical. Our study suggests that the larger captive leasing companies are effective in adopting an organization-wide program, but the smaller bank-related and independent firms are successful with more of a SWAT team approach. BPI programs include a variety of drivers and successful projects for improved leasing transaction response cycle time, leasing platforms, dealer application practices, interest collection, and business origination processes. These projects resulted in reduced customer response cost, greater leasing transaction productivity, better transaction consistency, lower application cost, higher collection rate, and increased customer satisfaction.

Our study's sources had the following advice on starting a BPI program:

- Establish challenging BPI goals at the start—what will be the end game?
- Seek initial consultant engagement, and set realistic program expectations.
- Deploy BPI as an integral part of the organization's fabric versus making it an add-on.
- Design the program to be informal and a good fit with existing organizational culture.
- Don't expect instantaneous payoffs but plan for gradually increasing wins.

In summary, our study reveals that a successful BPI program can be deployed using some general guidelines, but it will be most beneficial if it is tailored to the specific needs of each equipment finance company.

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