Excellence in Financial Management

Discussion Board Articles – Process Improvement

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Process Improvement

Improve Accounts Payable Processing with P-Cards

One of the newest ways to re-engineer Accounts Payables is through the use of procurement credit cards or P-Cards (Purchase Cards). Accounts Payable is often a very non-value added type of activity. It involves a lot of time and expense with marginal benefits. For example, accounts payable may involve processing purchase orders, preparing checks, stuffing and mailing-out payments, posting entries from all kinds of source documents, etc. Suppose you could reduce this activity by simply using procurement credit cards to consolidate much of the process. That's what P-Cards are all about!

Here's how they work. Instead of purchasing with requisitions, purchase orders, invoices, and checks, you now streamline this entire process by issuing purchase cards to certain people in your organization. Processing costs are reduced and you receive special reports that itemize your purchases on one single statement. Purchase Card Programs require a "buy-in" by all participants: Management must OK the P-Card Program, employees must accept using them, vendors must honor them, and the bank has to offer a quality P-Card Program. If you can get all four of these lined-up, then it's well worth investigating.

Make sure you look at your current payables workload before selling the idea of a P-Card Program. For example, how many invoices will you eliminate with P-Cards? If P-Cards will cover only about 1% of your spending, then it probably isn't worth implementing. However, most researchers have indicated that the typical payable function has 80% of its purchase transactions accounting for less than 20% of total purchase dollars. Therefore, considerable time and effort can be saved through a P-Card Program.

You can also setup unique controls within a P-Card Program. For example, purchase credit cards can be programmed for purchase limits by transaction, by day, by month, etc. Special reports can be used to reconcile purchase transactions directly with general ledger accounts. The reconciliation process can be streamlined by having users submit on-line monthly reconciliation's to the Payables Department.

The bad news is that most banks still don't offer P-Card Programs. Three banks that do are: Bank of America (1-800-305-7735), PNC Bank (1-888-762-6011), and Norwest Bank (1-800-524-8189). If you are seeking to streamline your accounting functions, you owe it to yourself to take a serious look at purchase credit cards for consolidation of payable transactions.

Reaching for the Six Sigma

One of the hottest approaches to process improvement in the last few years has been Six Sigma. Six Sigma has been embraced as a statistical methodology for increasing quality, lowering production costs, and improving profitability. In the words of Jack Welch, CEO of General Electric: "Six Sigma GE Quality 2000 will be the biggest, the most personally rewarding and, in the end, the most profitable undertaking in our history." According to Richard Wallman, CFO for Allied Signal, we will save $ 175 million in our first year of Six Sigma and this number will double in the second year.

Six Sigma was started by Motorola as a way of reducing defects in the manufacturing process. Six Sigma represents a statistical measurement of variation from a specific attribute or characteristic desired by the end-user. Six Sigma is expressed over six exponential layers:
One Sigma = 690,000 defects per million
Two Sigma = 308,000 defects per million
Three Sigma = 66,800 defects per million
Four Sigma = 6,210 defects per million (relatively efficient)
Five Sigma = 230 defects per million (world class efficiency)
Six Sigma = 3.4 defects per million (perfection)

Six Sigma provides a universal measurement standard for all processes throughout the organization. Sigma layers give an indication of how much failure is occurring within a process. It is estimated that a company operating between the third and fourth sigma can expect about a 10% loss in revenues from inefficiency. Moving from one sigma to the next is a major undertaking. A 30-fold improvement in quality is required to get from Four Sigma to Five Sigma.

Six Sigma is a very rigorous approach to improving quality within your products and services. Processes that are critical to products and services must be analyzed in detail. Techniques like process mapping and pareto charts are often used to understand the details within a process. Generally, Six Sigma will follow a four phase approach:
1. Measure - Determine the error or defect rate
2. Analyze - Understand the Process
3. Improve - Reach for a higher Sigma
4. Control - Monitor through measurement

Few companies have made it to the Six Sigma (3.4 errors per one million). However, where defect rates are extremely costly, reaching for the Sixth Sigma is now a given expectation. It is worth noting that Six Sigma requires formal training in the statistical methods that are used. Leaders of Six Sigma are called "black belts" while participants in Six Sigma are called "green belts." Once trained, the trick is to move the black belts around to critical areas for improvement.

One reason Six Sigma has become so popular is because companies want to eliminate non-value added activities as quickly as possible. Other approaches to process improvement, such as Activity Based Management, can take considerable time with marginal improvements. According to Mikel Harry, author and founder of Six Sigma, the defects and errors within a process are a key indicator of non-value added activities. For example, when a coding error occurs in payables processing, you have to put procedures in place for detecting the error, tracking the error, and correcting the error. All of this takes time and resources. When you eliminate the errors, you immediately reduce or eliminate the non-value added activities.

It is quite clear that many large corporations have made Six Sigma an integral part of their strategies. Operating people have long accepted Six Sigma as a way of improving quality. The challenge now is for financial management to adopt Six Sigma as a way of creating higher values and increased profitability.

A final word of caution - don't forget to look at the cost/benefit of reaching for the Six Sigma. An extremely low defect rate at a $ 5 billion Motorola facility is not the same as a low defect rate at a $ 1 million shoe manufacturing facility. The costs of going to a higher sigma may not be beneficial. As a result, some in financial management are using Activity Based Management as their guide to the deployment of Six Sigma.

Value through the Supply Chain

Maintaining a competitive advantage is a balance between providing great value for customers and doing it in such a way that your costs remain competitive. If you cut costs too much, you destroy your ability to service the customer. And service is the key ingredient behind customer retention. If your costs are too high, then your competition may gain an advantage in properly balancing costs with customer value. It should be noted that the value-chain encompasses all activities from design of products and services all the way through to the support of customers after they buy the product.

The buzzword for this whole process is called Supply Chain Management (SCM). The objective of SCM is to have all links in the chain working together, delivering products and services to customers when, where, and how they want it. At the same time, SCM must focus on minimizing costs and resources so that value is enhanced. Most value chains will consist of three links:
Distribution: Delivering products and services to customers.
Production: Converting resources into finished products and services according to the demands of the customer.
Resources: Acquiring the materials, people, and other resources to produce the required product or service.

Since this entire process is customer driven and since Distribution is closest to the customer, we start by looking at the Distribution link. Traditionally, distribution had

several links, manufacturer to agent, agent to distributor, distributor to retailer, and retailer to customer. In today's global e-commerce world, it is quite common to see only two visible links: Manufacturer selling directly to the customer. By removing links, we cut down on lead times and reduce costs within the supply chain.

One useful tool for streamlining distribution links is the customer product map. A customer product grid or map will differentiate customers. For example, some customers prefer to buy direct while others prefer traditional distribution outlets. Customer maps also identify product mixes, geographic markets, seasonal patterns, and other relationships important to customer demand. Collecting information about customer demand is extremely important. The objective is to get the customer involved in driving Supply Chain Management (SCM).

Once distribution has been re-designed around the customer, the next step is to integrate production into distribution. You need a production process that is fast, flexible, and centered around the customer order. Gone are the days of producing standard products within standard cost accounting systems. The process is now customer driven with throughput accounting, no longer relying on production forecasts.

After production and distribution have been engineered to fit the marketplace, you can move to the Resource Area with SCM. Resources must be managed on a Just In Time basis, delivering materials and other resources only as they are needed. This will require that you educate suppliers as to your marketplace needs. Establishing strong relationships with everyone involved is critical. In some cases, you may need to phase-out certain suppliers in favor of the more networked, leading-edge suppliers you can fit with e-procurement applications. Additionally, it may be necessary to share costs with suppliers in order to retain relationships.

A good example of reinventing the supply-chain is IKEA, a retail furniture store. The first part in the value-chain is product design: IKEA uses simple designs and parts. Secondly, IKEA keeps costs down by having the customer transport the product to the home and assembly the product. This eliminates non-value added links in the value-chain. Third, IKEA sells products of extremely high quality. IKEA also leverages technology and its Scandinavian image to create a competitive advantage through inventory management and marketing. The leveraging of core competencies is critical to squeezing value out of the supply-chain.

The entire supply-chain should be evaluated, from suppliers to end-users of the product. Supply-chains must be externally focused in a highly competitive environment. This requires that you work very closely with suppliers, customers, and everyone involved in the supply-chain. Finally, costs are controlled by looking at what drives the costs. The objective is to manage your activities better than the competition. Letting the customer guide the process (SCM) is how you can meet this objective.

Focusing on the Process – Part 1 of 2

All businesses require processes for the creation of products and services. A process is a collection of activities that consumes resources and adds value to the consumer (in the form of products / services) with some form of benefit paid to the producer. Additionally, all processes have variation – in business we call this risk. As H. Edward Deming, pioneer in the field of quality management, points out – If you can better understand variation in a process, then you can plan for it and do things to prevent it.

Unfortunately, there is a viewpoint that people may represent the source of problems for most business processes. A much better approach is to understand how people and their activities fit within the process. Processes tend to superimpose control over people and in today's entrepreneurial world, no-one wants to be controlled. Therefore, by focusing on the process, as opposed to looking at people as the source of the problem, we unleash the human capabilities of the organization. Too often, management is working to change people when it should focus more on changing the process which in turn leads to positive change on people. Additionally, when you focus on the process, you switch over from short-term bottom line thinking to quality, customer driven thinking. This is a much more sustainable approach to real long-term growth and profitability.

By focusing on the process, you will:

- Better focus on the customer
- Improve competitive position through quality and service
- Gain insight into how errors are introduced into the business leading to preventative measures for improvement and elimination of error correction activities (such as Six Sigma)

Managing a process begins with a very detail understanding of how the process works. This may require organizing the company for process improvement – appointing team leaders, investing in training, and running pilot programs on critical processes. One simple way to understand a process is to flow the process using a block diagram. Block diagrams provide simple visual flows of what takes place within the process. Once you understand how a process works, the next step is to make it efficient. This usually requires an emphasis on reducing errors and defects that occur within the process. Additionally, removing barriers within a process is a common way of empowering people and improving the process.

"We are spending all of our time saying: 'I'm sorry, I'll fix it', to customers who are increasingly sophisticated and understandably impatient. What we should be doing is developing processes that will make it unnecessary to ever apologize for inadequacies."

- Business Process Improvement: The Breakthrough Strategy for Total Quality, Productivity, and Competitiveness by H. James Harrington

Another common attribute of process management is measurement of the process. Common measurements for a process include resource consumptions per unit, cycle times, wait times, and % value added per unit. Reducing time related measurement's is often a goal behind process improvement. This may require additional automation and upgrading of technologies.

Many managers seem to equate process improvement projects in relation to costs. Unfortunately, many managers never evaluate a process in relation to quality, they always jump to the question: How much is it going to cost? Therefore, managers need to understand the relationship between quality and costs. Quality and costs go hand in hand for process management. By improving quality, costs naturally come down.

"With better quality and lower costs, you can capture the market." – H. Edward Deming, leading advocate of quality management

Finally, instead of forcing people to fit with the process, try changing the process to fit with the needs of stakeholders involved in the process. This usually requires "reengineering" the process. Part 2 of this article will outline the foundation behind process reengineering and the importance of involving all stakeholders within the process.

Focusing on the Process – Part 2 of 2

The words "business process reengineering" still leaves a negative impression to many of us in the business world. Years ago companies rushed to reengineer their processes to improve quality and efficiency. However, the end result was less than desirable – new processes were layered on top of existing processes resulting in more work with fewer people. Costs were temporarily lowered benefiting investors. However, other stakeholders in the process, such as employees, were victimized by reengineering.

Real reengineering is more about including everyone involved, so that there are no losers and winners from reengineering. The words collaboration, connecting all players, more transparency, and more openness are now part of the reengineering vocabulary. The buzzword for this new or real approach to reengineering is X Engineering. The "x" refers to crossing; i.e. reengineering must cut across all organizational boundaries. Author and consultant James Champy pioneered this more human approach to reengineering in his book: X Engineering the Corporation. Author and e-commerce expert Thomas Koulopoulos refers to this as the x-factor, creating communities whereby people can collaborate.

"X engineering is about optimizing relationships so that companies can tap the full sum of the intelligence and experience of all of the people in its network of customers, suppliers, and partners. To accomplish this goal, the processes in which

these people participate must be arranged to work smoothly both within an organization and between the organization and its customers, suppliers, and partners."
- X Engineering the Corporation by James Champy

Processes are no longer tightly controlled and restricted from view. Processes are now easily accessed over the internet. If a process is performed in isolation from others, then management must determine if the process is really isolated. How do we open it up to outsiders so that we can improve it and lower its costs? Are we leveraging technology to transform this process?

One obvious obstacle to x-engineering is resistance. Many partners may not want open-up and change; they will refuse to share information. The challenge for management is to break through this deadlock by deploying a single, standard process that allows everyone to work together seamlessly. One reason this is so important is because customers are increasingly sophisticated and demanding. In order to properly serve the customer, everything within the supply chain must be connected and coordinated. Everyone takes ownership, assuming specific responsibilities for making sure their part of the process is managed flawlessly. Supply Chain Management (SCM) now evolves into Supply Chain Relationships (SCR). And we can compliment these processes with Customer Relations Management (CRM) and Employee Relations Management (ERM).

The reasons behind reengineering remain the same – increased competition, the need to improve customer service, the need to lower costs, and the need to keep up with technology. However, the significance of these drivers is becoming more demanding. As a consequence, many companies are becoming exhausted, run-down and giving up on these incredible demands to reengineer the business. However, instead of admitting defeat, management should view these challenges as new opportunities. And by connecting all players through technology, real reengineering (or x-engineering) can become a real value-adding proposition. It will require a new mindset whereby management is openly sharing their processes with others in a way that allows reengineering to take place for the benefit of everyone. And with technologies like the internet, there is no excuse for not making it happen.

Avoiding Six Sigma Sickness

It seems everything within corporate America is getting six sigmitized. Yes, Six Sigma is a well-defined methodology for improving quality, which in turn, leads to control over costs. However, like any major business initiative, Six Sigma can have its drawbacks. This article will outline a few of the pitfalls that sometimes are associated with Six Sigma.

Before we jump in – let's go back to what Six Sigma is. Six Sigma is about how you use resources and the more resources consumed, the higher your costs. Therefore, if we require less time, effort, materials, and other resources to produce something,

then we invariably lower our costs. Activity Based Costing also tried to deliver on this cost control approach; but Six Sigma finally broke through on giving management a set of standard tools for controlling costs within a process. One of the big payoffs for Six Sigma over other re-engineering programs is that more effort is not required (at least that's what the experts say). Unlike other process improvement programs where people are forced to work harder, Six Sigma is aimed at getting people to work smarter, not harder.

"It would be a mistake to think that Six Sigma is about quality in the traditional sense. Quality, defined traditionally as conformance to internal requirements, has little to do with Six Sigma. Six Sigma is about helping the organization make more money by improving customer value and efficiency. Six Sigma focuses on customer requirements, defect prevention, cycle time reduction, and cost savings. Thus, the benefits from Six Sigma go straight to the bottom line. Unlike mindless cost-cutting programs which also reduce value and quality, Six Sigma identifies and eliminates costs which provide no value to customers, waste cost."
The Six Sigma Handbook by Thomas Pyzdek

Where Six Sigma does excel is in the setting of standards for measuring, analyzing, and reducing inefficiency. However, forcing every single business activity into this Six Sigma Model may not work. Such was the case with NBC, a business unit of General Electric. Not every activity or process should be squeezed into a quantifiable model when in fact, the real value proposition gets completely lost. For example, a book publisher followed the Six Sigma Model in the production process of books. The production process became perfect – every letter on every page was produced without defects and no books were rejected from the assembly line. However, no-one was interested in buying the books – the content itself was poorly developed. The real value that the product creates for the customer got lost in the Six Sigma frenzy of perfection within the production process.

Another common problem with Six Sigma is playing games with the numbers. How you categorize and define defects is significant in how well you meet Six Sigma targets. For example, do you look at the number of defects throughout the motherboard of a personal computer or do you look at defects on the PC Battery installed on the motherboard. By simply changing the definition, you can dramatically change your sigma level of perfection.

Like so many major initiatives, Six Sigma can receive less than enthusiastic response from workers. For example, Six Sigma can be somewhat divisive – a few people are chosen as Black Belts, a larger group is selected as Green Belts, and others are not included at all. In order for Six Sigma to be truly accepted, everyone should be given an opportunity to become a Green Belt and people who have demonstrated strong leadership on improvement issues should be considered for Black Belts. Don't exclude people on such a major enterprise-wide initiative as Six Sigma.

Start with selected processes; don't go full scale until you work out the bugs. From initial projects, you can roll-up "lessons learned" into further projects. Up to one-third of your process should be considered for Six Sigma at the outset since many will fail to fit with the Six Sigma methodology. You want to flush out the successful practices that will work since you need to leverage your investment in Six Sigma. And the investment can be high (especially for black belt training). Additionally, it's best to run pilot programs to work through design flows and techniques.

Finally, Six Sigma should not be viewed as TQM (Total Quality Management) or a new approach to re-engineering. People are very skeptical over such initiatives. Instead, you should allow people to use Six Sigma as a set of management tools for changing how they do things. And when balanced against other value-added management processes, Six Sigma should compliment and add value in its own unique way without impeding other critical drivers of success. If you fail to find this right balance, Six Sigma can be a recipe for making you sick.

A good example of how Six Sigma can make you sick was Polaroid. Polaroid, a large manufacturer of cameras found out the hard way. Polaroid put enormous emphasis on quality, but failed to pay attention to a critical product substitute, digital cameras. As a result, Polaroid went bankrupt despite its outstanding quality. So make sure you balance Six Sigma against all those other factors in running your business; otherwise you will destroy value in the name of quality. This is perhaps the biggest risk with Six Sigma – getting blindsided by all those other things that impact your business.

Keep in mind that "quality" is almost a given in the marketplace; i.e. when you and I buy an automobile, we expect high quality. The point is simple – quality may not be as important to your long-term survival as other factors. And if your focus is narrow and driven by Six Sigma alone, then you will invariably get sick, just like Polaroid.

"Implementation of any change effort within an organization is difficult. However, compounding the difficulty with Six Sigma is the level of associated comprehensive tools and techniques. Resistance is a natural, often genetic reaction to any change in our lives. Unmanaged and unaddressed, the resistance to Six Sigma will spell the downfall of the effort."
- Making Six Sigma Last by George Eckes