

Perseverance Will Pay Off

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Companies that have made a real commitment to lean have the tools and systems to survive and prosper in a down economy. Is your organization equipped to respond and take action as soon as your leading indicators start to turn?

Gasoline is over \$4 per gallon in many parts of the country. Food costs are higher than they have been since 1990, with more price increases expected through the end of the year. April foreclosures jumped 65% compared to the same month in 2007, a trend that analysts expect to continue for the next several years. It's obvious now that the United States is in a cyclical downturn that's being exacerbated by problems in the financial systems and credit markets.

Manufacturing company leaders cannot wait for the economists to officially declare a recession, as defined by two or more consecutive quarters of negative GDP growth. With the exception of Petroleum companies in high-growth global markets and a few other industry sectors no one is going to be able to "wait out" this downturn without any trickle-down effect on their business. Now is the time for business managers to assess the direction of their lean efforts and respond to recessionary pressures. If they wait until it is painfully obvious that they have to make changes, company performance will inevitably follow the sales line down and struggle throughout the recession.

Watlow Electric Manufacturing Company (St. Louis, www.watlow.com) did not respond quickly enough to the last recession in the beginning of the decade and company leaders learned their lesson. This time around, even though their incoming order rate is only just starting to slow, the company has already taken significant steps to reduce costs, cut lead times and lower inventory levels. Watlow has been successful at reducing lead times which has significantly impacted their growth cycle and netted new business. Lean is clearly taking on the view as a growth strategy.

Leading Lean Indicators

Toyota's four "true north" metrics center around 1) human development, 2) quality, 3) lead time and cycle time (delivery), and 4) cost and productivity. As organizations progress through a lean transformation, in good economic times and more difficult times, they should strive to achieve double-digit improvements (at least 10%) in each of these four dimensions. Managers must also identify one area for a significantly greater rate of improvement. Which one will depend on the immediate customer needs and the business situation. This breakthrough area will have the most potential to have significant impact on customers and other stakeholders in the near future.

As a word of caution, the key metrics that managers let slide are always the ones that lead to serious problems in a couple of years. Witness the quality problems that manufacturers have had recently with lead paint on toys and food contaminants. Every improvement initiative should at least have safety and quality gains as "tag along" goals, even if the primary focus is on cost and productivity. The four true north metrics are all related, improving one supports gains in the others.

Following traditional cost-cutting methods, when sales begin to slide most executives will evaluate each line item on the budget and cut those that don't seem to have an immediate impact on the business. Training programs and continuous improvement efforts are typically the first to go.

It's not easy for company leaders to see the immediate impact of such cuts on the business. To help bring such factors into account we developed the Simpler Business System, which incorporates Toyota's true north metrics as well as the pillars of the Toyota Production System (TPS). The model has evolved over the past 20 years based on experiences with successful lean implementations during times of growth and times of market contraction. This enterprise business model consists of three elements: people, process, and purpose (See Figure 1).

As indicated in the figure below, in best practice and recession-proof companies' people are personally involved and dedicated to specific value streams. They have been properly oriented and trained, and are continuously informed of changes in the organization and the market. Most employees want to make a personal contribution to the success of the organization. By giving them the time and resources to participate in continuous improvement activities, for example, managers are demonstrating their respect for their knowledge and giving them the tools they need to reduce waste and variability that most company leaders never see.

If they truly regard employees as their most valuable asset, then leaders must invest as much in employee development as they do in any hard assets. Such investments typically deliver a 10:1 return or better, which is far above other investments. This is as true in boom times as it is during a recession. The key to successfully investing in people is that such investments should always link back to the strategic purposes of the organization. Strategy and policy deployment processes can provide a clear connection for employee development activities to the company goals.



Figure 1. The Simpler Business Model integrates continuous improvement tools and employee development to provide a clear line of sight to the organization's core strategy.

Quality is improved by solving many small problems that build on one another over time. Organizations should not focus on any one quality improvement tool but on the appropriate tools for each specific problem. Too many company managers embrace popular programs, like Six Sigma, ignoring waste reduction and other variability reduction methods that can also provide huge improvements. Within a targeted area, a blended application of tools will have a much greater impact than focusing on a few select projects.

During most engagements we look for 15-25 safety and quality improvements during a week-long Kaizen or rapid improvement event. These may be relatively small improvements, but they keep

everyone focused on the true north metrics while we target breakthrough gains in other areas. Such improvements typically impact value streams vertically and horizontally, leading to financial improvements along multiple dimensions.

Unfortunately, quality gains can take a long time for customers to notice, and even longer for customers to believe that they will be sustained. In fact, it might take up to three or four years for a company to reap the full market benefit of any quality gains. Even though managers cannot count on such improvements to pull them through a recession they still need to keep grinding them out.

The Biggest Bang for Customers

While it takes some time for customers to recognize quality improvements, they will notice reductions in lead times and delivery times very quickly. If an organization consistently cuts its lead time relative to the competition by 75%, it has the potential to grow at three to four times the industry growth rate. That is, if the industry or sector usually grows 3% per year, the company could grow 6-12% per year if it can reduce lead times and hold them consistently.

Kolbe and Kolbe Millwork Company, Inc. (Wausau, Wis.) has achieved record sales in the midst of a construction downturn. Its high-end wood and vinyl windows and doors have found a recession-proof niche bolstered by their embrace of a lean business system.

In 2005 Kolbe and Kolbe managers began incorporating lean into its manufacturing operations, hiring Simpler North America to help them implement a companywide continuous improvement program that would remove waste and variability from their production processes, and replace it with value-added activity. After two and a half years the company is starting to reap the benefits of increased productivity and shorter lead times leading to their increased sales. In 2006 Kolbe and Kolbe reported record sales and is on pace to set another record this year.

In a recession, not all companies with superior lead times will increase sales like Kolbe and Kolbe, but they will have a slower sales decline than competitors. One effective strategy is to target administrative lead times, such as quote cycles and order entry cycle times. Most organizations can reduce lead times faster in these areas than in production, which can have a big impact on getting and keeping customers.

Unfortunately, many organizations that manage to reduce cycle times fail to establish the organizational practices that will allow their customers to enjoy the benefits, and thus miss out on the potential sales benefits. To hold onto such gains managers have to change work policies. Following the administrative example above, they may need to require that all quotes are completed each and every day, which means that people will have to be more flexible and willing to work overtime if there is a surge in quote requests or orders. Supervisors will also need to understand that shorter lead times will bring in enough additional business that will more than cover the overtime costs that may be incurred in order to maintain short lead times. Such an approach requires a change in mindset for most organizations, but a recession creates an excellent "burning platform" for creating a sense of urgency and instituting such changes.

In a down market, cash flow becomes very important. This is especially true in the current recession, which is being exacerbated by credit contraction and tighter lending standards across all areas of the economy. Inventory can lock up significant amounts of working capital. Improving material flow and reducing lead times will free up cash by reducing inventory levels. Lower costs will also improve cash flow by improving margins.

While many manufacturers have some opportunity to reduce scrap or other forms of waste, for most the most significant controllable cost is labor. In a typical manufacturing firm the material

costs are set by the market and are not that different from one firm to the next. But people costs can vary based on location as well as differences in productivity, processes and strategy. Some industries, like health care, really only have one cost--people--all other costs are insignificant by comparison.

The number of people that it takes to get the job done determines a host of other costs, such as the number of office cubicles, desks, and computers, as well as the IT staff required to support those computers. Think about how many parking spaces are required for each employee and the cost of office space for each employee. During a recession company leaders should be thinking about how to maximize every investment in space in terms of revenue per square foot.

Many managers talk about productivity, but few measure it, and even fewer are actually able to improve it at a significant rate. Despite claims that it's impossible to measure in product development or sales, these areas are often ripe for productivity improvements. They are also very often the source of many out-of-control costs. Focusing on such costs should not undermine human development initiatives. Linking people to specific processes, whatever they may be, as well as the mission, vision, and purpose of the organization, lies at the heart of the business system.

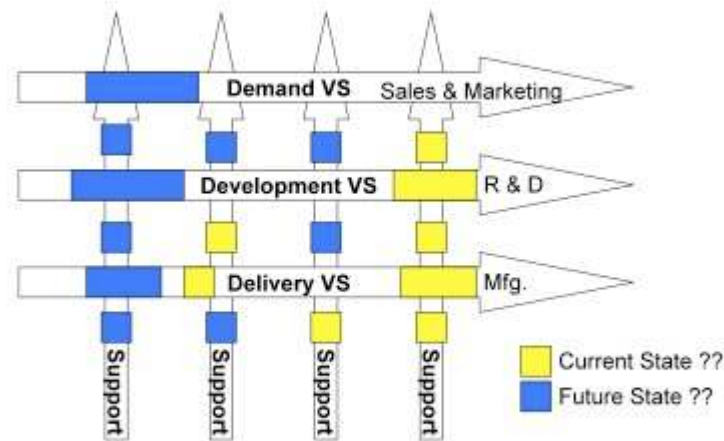
One effective approach is to track individual productivity measures based on the total cost of each employee. Everyone has a personal target of two times their annual employment costs as a target for process improvements within their value stream. Such a metric forces people at all levels and in all value streams to participate in the organization's lean efforts and work to improve productivity. World-class companies, which rarely layoff people, typically have 100% of employees engaged in some form of productivity measure.

As a general precaution, it's almost always the right thing to do for an organization to freeze any new hiring at the first sign of a recession. If sales fall faster than the rate of attrition can absorb, requiring some layoffs, it is better to take a large cutback early, and then use lean strategies to handle the workload. This might mean making a reduction that initially requires some overtime from the remaining employees, which will be reduced or eliminated in subsequent quarters as sales decline. These are the tough decisions that most managers don't want to make, but lean leaders should constantly be developing appropriate response plans to changes in market conditions.

The Purposeful Plan

If the company hasn't done so already, it's not too late to pull together the management team and discuss the implications of slower sales and the areas that need to be focused on in order to minimize any negative impact. This may mean attacking value streams that require a lot of people because of the potential margin and productivity gains. During down cycles, we find that most manufacturing companies focus on the delivery value stream or the conversion of raw materials into finished goods. To drive revenue they invest time and resources to improve those value streams that have the most potential for growth as a result shortened lead times. Even if such operational and sales gains can be realized, if the recession is long and deep, further cost reductions may be required.

Enterprise Value Stream Structure



The goal is to structure the organization in a enterprise value stream. Link all processes together vertically and horizontally to create links between business strategy, people, and organizational processes for flow

Of course growing productivity should be at the top of the management team's agenda well before key market indicators signal that it's time to act. The current recession will require changes whether we want to make them or not. The strongest companies will make those changes that effect all three elements of the lean business model, leading down the path of continuous improvement.

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