

This month we have a variety of articles taken from around the world. Our lead article is from the Canadian Consortium newsletter, edited by Don Breakey – capturing the financial benefits of lean. We have two of Dan Jones' recent emails and also an article on the new Airbus A380. Finally there is a lighted hearted article for anybody who is a musician at heart!

Bob Davis, the AME-UK President – is giving us advanced notice that a draft programme of events will be published in the next few weeks and we would like your feedback as to whether these are 'what you want'.

Capturing Financial Benefits From Lean Manufacturing

Thanks to Don Breakey, MCME Coordinator Canada

Once upon a time there was a company who decided to implement Lean Manufacturing. They hired a large prestigious consulting firm who created the grand strategy and trained everyone in lean thinking. Significant operating improvements were identified. It was all documented in a report two inches thick. Teams were launched, a lot of activity took place, and everyone was feeling good about the new initiative. Unfortunately, however, while management appreciated the effort, they were underwhelmed and disenchanted with the teams' bottom-line results. Does this sound like your organization? If it does, you are not alone.

Lean postmortems reveal a familiar root cause for this situation: Organizations are quick to adopt the religion and methodologies of Lean Manufacturing, Six Sigma, and other improvement programs. They also have great intentions as they drive the organization to think about value-added, customer focus, and the need to quantify results. What often gets lost in the excitement of deploying Lean Manufacturing is the discipline involved in tying activities to clearly define and auditable financial results. A good example of this is the engineer who justifies a major capital investment on a cycle time reduction or labour savings in an area where there is already excess capacity. It's just not real from a bottom-line perspective.

There are several lessons that can be learned about achieving breakthrough results. These lessons work well and help organizations translate transparent intentions into visible financial results.

LESSON 1: Pick Your Battles Carefully

Build a direct link between the Lean Strategy and the daily improvements being pursued by

the teams. Make sure that projects pass the litmus test up front in terms of real financial benefits. Finally, don't try to solve "World Hunger"—use Pareto analysis and chunk off the opportunities with the highest bang for the buck. Keep these initiatives short and focused.

LESSON 2: Hire Your Accountants

Manufacturing often treats these people as public enemy #1 but they understand the bottom-line factors such as revenue dollars, labour rates, gross margins, fixed versus variable costs, inventory costs, variances, G&A expenses, and the like. These measures become critical in translating process improvements into bottom-line results. Teams should be able to relate operational improvements to these P&L and Balance Sheet criteria. The financial organization can add a lot of value in terms of validating benefits.

LESSON 3: Define Project Selection Criteria

Experience shows that documenting and reinforcing financial guidelines early on in the Lean Manufacturing engagement will help standardize expectations about what is or is not a good improvement project. This practice will also help to prioritize actions and how to best use limited resources.

LESSON 4: Use Stage/Phase/Gate Reviews

Every project should have a well-defined implementation plan with timetables, responsibilities, milestones, and deliverables. The worse thing an organization can do is to allow teams to flounder on for months. At a minimum, weekly meetings with a Steering Committee should take place. Make teams accountable for execution and results. If they're not getting it, change the approach. Remember, continuous improvement is not really continuous; it is a series of discrete improvements with well-defined beginning and end points.

LESSON 5: Showcase Results And People

Businesses should create a visible company dashboard or storyboard that outlines the overall Lean strategy, current projects, results-to-date, and recognition for top performers. This builds positive momentum, fosters some healthy competition, and demonstrates that Lean is about generating results for everyone—the Company, its customers, employees, suppliers, and other stakeholders. The use of visuals also drives home the fact that Lean Manufacturing is the acceptable standard of conduct. Change is not in addition to your normal job; it *is* your job and a condition for employment for everyone. Either we improve or our competition does it for us.

For many organizations, Lean Manufacturing has become a lost opportunity. Management believes in it, their customers are demanding that they do it, but they just can't figure out how to turn actions into cash flow. Management is also questioning why we should continue if we can't see any value or financial impact. It's not the end of the world when organizations have to go back to the drawing board and reconfigure their approach. In fact, the companies who are best at Lean Manufacturing have done this several times. Return armed with lessons learned and fortified with a renewed perspective from your financial organization. This approach always delivers the real bottom-line results that senior management demands and should expect.

Source: Terence T Burton,
www.isixsigma.com

Dan Jones' Recent Newsletter

I have recently been getting a striking reaction from many senior management audiences. They all agree that products have got vastly better over recent years, but they equally agree that the process of ordering and buying them and getting them serviced has got worse!

They spontaneously tell me that while they love driving their upmarket German premium brand cars, they will not buy another one because of the terrible experiences trying to get them fixed when they go wrong, which they seem to do all too often. Many of them wonder whether they would have the same experience

owning a Lexus, built with Toyota's fabled quality levels.

This is in fact a symptom of a deeper problem, from which we can learn a lot. A decade ago as the Japanese car makers began to make serious inroads into world markets, European car makers decided their future lay in coming up with more distinctive designs, adding lots of new technologies, offering a greater range of models and a huge choice of specifications so customers could customise their cars to make them distinctive. Business writers called this mass customisation. For a decade or more it seemed to work. Now the chickens are coming home to roost!

The problem is not with the distinctive designs: when they work they really attract attention, as they do unfortunately when they fail to hit the mark! Adding technology is also not the problem, provided it is thoroughly proven to work flawlessly in the highly demanding environment in which we drive our cars and provided it delivers real value to customers, rather than bewildering complexity. The problem is that we can only really cope with so much choice. As our lives get busier we have less time to deal with all these choices. Beyond a certain point the distinctions between different models and options add little or no value at all.

The real problem is when this complexity begins to negatively impinge on the ownership experience and on the cost base and profits of the producer. It is not difficult to add several thousand pounds of options as you specify your uniquely customised car. However when you come to sell the car, maybe even to the same sales person, you discover that these options make no difference to the trade in price you are offered! This leaves a nasty taste in the mouth and makes you very reluctant to repeat the experience. Next time you will probably choose a brand that offers a package that fits your needs. Although the dealer loves the extra profit on the options, these cars often sit around for much longer waiting for the next owner, tying up capital in the meantime.

However the crunch comes when dealers are expected to fix all the problems on this bewildering array of products and options, fitted with unreliable technologies. There is no way they can diagnose and solve all these

problems, and order and stock all the required replacement parts. Not surprisingly their ability to complete service and repair jobs right first time on time has fallen from the typical average around 60% to nearer 30%. That means two thirds of customers are frustrated and disappointed! And they tell their friends and relatives.

Extended warranties mean that manufacturers are paying for all this. Almost certainly most of the profits they traditionally make on selling expensive options and spare parts are now being lost in ballooning warranty costs. Product proliferation is not the way to compete with the new industry leader, Toyota.

The longer term solution is to go back to the lean basics, to embed quality at source into every step in the design and production process and to review the product range and bundle the options. The short term solution is to improve the parts system and dealers' ability to fix today's problems. In Lean Solutions we show how the same lean techniques we use in the factory can dramatically improve car dealers' ability to get jobs fixed right first time on time. Toyota is now beginning to roll these techniques across its dealer networks across the world. It is surprising how other manufacturers are blind to improving this most frequent point of contact with their customers. Their future will critically depend on how long they take to follow Toyota's example. Most of them still do not measure the right first time on time experience of their customers.

7th Annual Six Sigma Summit

Our last chance to remind you!

The 7th Annual Six Sigma Summit and Excellence Awards – How to drive your process excellence from deployment to unconscious competence will be held at The New Connaught Rooms, London. April 24 - 27, 2006 .

As a quality professional, your time is precious. That's why the 7th Annual Six Sigma Summit, the largest ever gathering of European Six Sigma and Quality professionals, is bringing you over 40 individually profiled projects filled

with innovative ideas for the next step in your journey.

In just four days you'll can see 6 streams of best practice from across industry, take part in 9 focused workshops and even go on a site visit to see Six Sigma and Lean working right before your very eyes. If you're having difficulty getting the buy-in for your innovative ideas, what better way to go about it than to bring your team along to this enormously rewarding forum?

Here's a quick snapshot of the agenda:

- * Think outside the box: Utilise continuous improvement to leverage new business opportunities with Norwich Union Life and Kodak Polychrome Graphics
- * Stop talking and start listening: New techniques to achieve a two-way conversation and leverage support from shop floor to boardroom from Bechtel and Dell
- * Keep your wheels turning: Create your own constantly changeable continuous improvement programme structure with true-to-life examples from Bombardier and Alstom
- * Dress to impress with a fitted, tailored toolkit: Achieve true integration with Lean, Scorecards and BPM with North West Wales NHS Trust and Royal & SunAlliance
- * Lead your leaders and train your trainers: Utilise the examples of Siemens and Motorola to reach higher goals with your internal support structure

With Six Sigma booming through your competitors' companies, can you afford not to be at the top of the game with Six Sigma's progression in sales and marketing?

For more details or to register, visit <http://www.sixsigmasummit.com/GB-528/AME>

Getting the Most Out of Lean with Profit Mapping

Lean Improvement programs have not always translated into increased competitiveness and

financial performance. Profit mapping gives managers a new integrated way of thinking about lean, showing them how and where to implement it properly.

The following article is from the SME e-newsletter www.sme.org. You can access the complete article at the URL below:-

<http://www.sme.org/cgi-bin/get-newsletter.pl?LEAN&20060209&3&>

The Best of the Best can Improve the Rest

Source: www.qualitymag.com

By applying techniques used by exceptional employees, you can train average employees to excel. Here's how:-

Identify the exemplary performers:

Talk to the employees or to the first-line supervisors. Find out who are the workers that regularly exceed expectations, perform better or are recognized by peers as being the best. Compare key measures of the job, such as productivity or number of errors, to find the exceptional employees.

Identify the best practices:

Tell the chosen employees that they have been identified as exemplary performers, and ask them, "What do you do differently that makes you more effective in this task?" Usually workers are surprised and flattered, but they rarely have any trouble answering. If their tasks are physical ones let them show you what they do, as well as explain.

Implement the best practices:

Teach your other employees the techniques and shortcuts the exemplary performers have discovered. This can be done formally, as part of an official training program, or informally, with members of the department getting together once in a while to share ideas. You can appoint a "best practices" coordinator, or make it a part of your regular trainer's job. Try it on a small scale at first, to verify that the practice actually do improve performance.

Once you've determined that a new technique really does work, make it standard practice for

everyone in the department. Unless it's systematized, it's not going to happen. Expect people to follow the new improved method, but don't keep them from innovating on their own.

Once employees see that others are being recognized for sharing their ideas, they will be motivated to do the same.

Once the new methods are standardized, they are simply the norm. Soon new exemplary performers will emerge, and another cycle of improvement can begin.

Lean Gone Wrong?

If you have an interest in music, this may appeal ...

A company chairman was given a ticket for a performance of Schubert's unfinished Symphony. Since he was unable to go, he passed the invitation to the company's Quality Assurance Manager. The next morning, the chairman asked him how he enjoyed it, and, instead of a few plausible observations, he was handed a memorandum which read as follows: –

For a considerable period, the oboe players had nothing to do. Their number should be reduced, and their work spread over the whole orchestra, thus avoiding peaks of inactivity.

All twelve violins were playing identical notes. This seems unnecessary duplication, and the staff of this section should be drastically cut. If a large volume of sound is really required, this could be obtained through the use of an amplifier.

Much effort was involved in playing the demi-semiquavers. This seems an excessive refinement, and it is recommended that all notes should be rounded up to the nearest semiquaver. If this were done, it would be possible to use trainees instead of craftsmen.

No useful purpose is served by repeating with horns the passage that has already been handled by the strings. If all such redundant passages were eliminated, the concert could be reduced from two hours to twenty minutes.

In light of the above, one can only conclude that had Schubert given attention to these matters, he probably would have had the time to finish his symphony.

BMW engine plant celebrates five years of growth

[Manufacturing News](#), Source: TheManufacturer.com
Published: 09 Feb 2006 9:51

It is five years since BMW's engine plant at Hams Hall opened; the West Midlands factory has become the centre of competence for production of four-cylinder petrol engines, and is set to expand further.

The plant has produced over 680,000 engines for vehicles in more than one hundred countries around the world, and has expanded its customer base within the company's international production network, supplying engines to vehicle plants in Germany (Munich, Regensburg, Leipzig), South Africa (Rosslyn) and the USA (Spartanburg) as well as to Austrian-based production partner Magna Steyr Fahrzeugtechnik (Graz). Hams Hall engines power the four-cylinder petrol variants of the BMW 1 Series, 3 Series, Z4 Roadster and X3 models.

Total production last year was just over 180,000 engines, and over the next few years this is set to increase significantly, creating additional employment opportunities, mainly for positions in the direct production areas.

Looking back over the past five years, plant director Harald Krüger said: "The successful development of the factory is first and foremost a tribute to our associates who have consistently demonstrated the levels of skill and dedication required to achieve exceptionally high standards of quality, flexibility and productivity in what is a fiercely competitive global industry. We are proud to be making a valuable contribution to the company's strategy of achieving profitable growth with premium brand products. Hams Hall is an important element in the equation that enabled the BMW Group to post record sales and turnover results in 2005."

In addition to the original £400 million that was invested to create and launch the Hams Hall plant, the company has continued to re-invest in order to maintain the workforce and facilities at world-class standards and prepare the plant for increased volumes and new products.

"Our investment of over £20 million, so far, in comprehensive training and personal development programmes has been the single most important factor in enabling us to establish the plant as a profitable and successful operation with excellent future prospects," Krüger said. "Our development programmes ensure that BMW associates here in the West Midlands have the same high level of knowledge, qualifications and skills as their colleagues and counterparts at the BMW engine plants in Germany and Austria. This, together with the tremendous flexibility and commitment to quality demonstrated by the members of our workforce, puts us in a strong position."

The UK plant's proven track record over the past five years for product quality, flexibility and productivity has enabled it to win new business, as Harald Krüger explains: "I'm delighted to be able to confirm that we are starting to make preparations to produce an additional family of four-cylinder petrol engines for a growing family of future MINI variants that will be built at our vehicle plant in Oxford. Having a second engine to build will add another string to our bow and further strengthen the long-term future of the plant. The opportunity and the responsibility of contributing to the continued success of the MINI brand, one of the great icons of the British car industry, is something that has everyone here really fired up. This development clearly shows that, in the right conditions, and with the right strategies and people in place, manufacturing can not only survive, but thrive in the West Midlands."

Airbus' Jigsaw Plane

From Business Week Online Carol Matlack

The supsize pieces of the A380 are built in four countries, then shipped for final assembly in Toulouse, France



The logistical challenge of building the Airbus A380, the world's biggest passenger jet, is every bit as awesome as the plane. Start with a piece of equipment requiring millions of parts and complex technology. Add to that the aircraft's outsized dimensions -- about 50% more floor space than a Boeing 747 and a wingspan more than 10 meters longer.

Then, to make things really complicated, manufacture the wings in England, the tail in Germany, the fuselage in France and Spain -- and move these gargantuan pieces to yet another location to put them together.

Although the A380 is assembled at Airbus headquarters in Toulouse, France, none of the components is made there. Instead, they're sent to Toulouse from factories in four countries.

TOO BIG. Airbus uses a similar arrangement for the other aircraft it builds, shipping the components by land or loading them aboard transport planes. But the A380's parts are too big for conventional transport means.

So Airbus devised a complex scheme that involves shipping pieces on a custom-built oceangoing ferry, a fleet of river barges, and oversized flatbed trucks. To accommodate the trucks, 240 kilometers of highway connecting Toulouse to the nearest port had to be widened and straightened.

Wouldn't it have made more sense to build the whole thing in one place -- or at least assemble it near the water? Airbus said it considered putting the final assembly plant in a port city such as Hamburg, Germany, where it already has a factory.

AIR SHOWS. But it concluded that setting up a new factory and recruiting and training workers would have cost even more than shipping the parts to landlocked Toulouse. The decision clearly was political, too. The governments of France, Germany, Britain, and Spain, which provided loans to finance one-third of the A380's \$13 billion development costs, wouldn't have kicked in that money

without getting a share of the construction work.

Shipments of components to Toulouse started in early 2004, and since then four planes have rolled out of the factory. All are being used for testing and for highly publicized appearances at major air shows.

A fifth test model is nearly complete, and work has already begun on aircraft scheduled for delivery to the first customer, Singapore Airlines. Singapore was to have received its first plane this spring, but delivery was delayed eight months, to the end of 2006. Airbus hasn't specified the reasons for the delay, but experts familiar with the project have said it was related to installation of the plane's interior fittings.

British Managers 'rely too much on self help books'

Published on 15 March 2006 IIE

Reliance on self-help books is causing a shortage of leadership skills in the UK workplace, claims an executive training company.

Diane Ingham-Cook, of Effective Training & Development, an executive training company, says this reliance on books is harming the management skills base in the UK: "Leadership skills such as inspiring people, nurturing relationships, handling pressure and defining company vision, are more prized in other countries than in the UK and there is a huge skills gap.

"UK managers turn to self-help books because they are perceived as more convenient and more discreet whereas business people in other countries are happier to invest more in more personal and interactive advice.

"The stiff upper lip is hampering many people's career. There is a culture of self improvement in other European countries and the United States and this is backed up by statistical evidence."

Millions of pounds were spent on management guides in the UK last year. There are 48,736

books listed in the 'business management' category of Amazon, the online bookstore.

A recent Department of Trade and Industry (DTI) sponsored study conducted by the Chartered Management Institute revealed that less than half of those respondents (34%) working for commercial or business organisations, reported that their organisation had an explicit budget for leadership development and training.

Another report by the Chartered Institute of Professional Development revealed that UK businesses spend an average of £817.37 per person on training each year. Other European countries invest more money in developing their managers and average 2513 euros (£1707.28) per manager per year.

"Leadership skills are more carefully nurtured in American and European businesses than in the UK," says Ingham-Cook, "British managers and professionals could contribute much more to their own growth and education if they avoided gimmicky self help books and booked themselves on effective leadership courses.

"Our research indicates that most executives, entrepreneurs and other leaders spend around four hours a week reading self help books to boost their career. Much of this time is wasted on pursuing pseudo-intellectual business theories. Very often it's their soft skills that leaders need to enhance and these can't be picked up from the pages of a book read on the commute into the office."

More from Dan Jones

We traditionally see an organisation as a collection of departments or activities, each managed separately and each separated from the rest by inventories or time buffers between them. Performance is improved by setting targets and budgets. When these are not met we change the managers and if that does not work we restructure the organisation. We instinctively reach for structural solutions because they are quick and relatively easy. However the underlying processes and cost structures remain more or less unchanged.

When I walk round any organisation I see it as a collection of customer processes (if it is a service delivery organisation like a hospital), design and production processes (creating the value the customer is paying for) and many support processes that enable these value creating processes to flow. The task is to identify the value in each of these processes, to see and manage the end-to-end flows and to synchronise the support flows.

If I can not see the end-to-end flow through production, then neither can employees and managers. So the first task is to help them see their processes and to uncover the reasons why they do not flow. Quite often this means looking at the impossibly complex mix of products they are attempting to flow through their processes. It also means challenging the batch logic of their planning systems trying to schedule every product or batch through every operation. Getting over this hurdle creates the conditions where we can begin to flow most products through the entire process. It also creates the stability necessary to develop standard operations in every process step, which is the baseline for continuous improvement.

As well as looking down at individual processes, I also want to fly a little higher and look down at the organisation as a whole. What are the major flows through the organisation and how do all these processes interrelate? I have in mind a fishbone diagram, overlaid on the organisation chart. The value creating processes form the backbone and all the support processes are the fins. Once we can see how an organisation flows then I am sure we will see even more opportunities for improving it.

The distinctive thing about lean thinking is that it derives from observing best practice organisations and not from theory (which is why academics have such a hard time understanding lean). The lean principles distil the cumulative experience of thousands of people who have spent their working lives solving the problems that enable processes to flow, and to do so in line with customer demand.

The core expertise required to create and

improve processes is a scientific approach to problem solving close to its source. Every problem is an opportunity to improve the process and every problem is also an opportunity to develop your people. The two go hand in hand.

So the second thing I look for is how good the organisation is at seeing and surfacing all the interruptions and hiccups in their processes. Are these recorded as they occur and what are the processes for responding to them? Are they delegated to an expert group to solve or is everyone involved in some kind of problem solving activity?

If so, is there a common approach to problem solving across the organisation and a common language for communicating the diagnosis and the results? Is there a policy deployment framework for aligning and prioritising problem solving activities in line with the business goals of the organisation?

More than anything else do managers lead by developing the abilities of their staff to solve problems, at every level in the organisation and throughout their career? Do employees look up to their superiors for the answers to problems or do managers guide their staff to find the right solution by asking the right questions?

Answers to these questions reveal the real management challenge and opportunity from lean thinking. Process thinking is fundamental to delivering increased value to customers at lower cost. But this in turn relies on an infrastructure for communication and problem solving and a management committed to continually developing the problem solving capabilities of its people, from the top to the bottom.

Manufacturers 'burying their heads in the sand' on energy

[Manufacturing News](#), Source : [TheManufacturer.com](#)
Published : 27 Mar 2006 12:26

Manufacturers are burying their heads in the sand when it comes to dealing with soaring energy costs.

Research from Barclays capital and energy broker Utilyx claims that Britain's biggest

industrial and commercial energy consumers have failed to minimise energy price risk and have not adapted their buying processes to current volatile conditions. By purchasing at the wrong time, UK plc overspent on energy by more than £3 billion last year – up from £1 billion in 2004.

The survey shows that an increase in last minute buying accounted for these losses. An increasing number of manufacturers secured the annual price for their gas and electricity in the three months immediately prior to their contract start date when the average price was significantly higher than the average price over the preceding nine months.

“We all know that 2005 saw dramatic increases in energy prices and even greater volatility in the market. But this does not appear to have encouraged manufacturers and other major users to change the way they buy their energy and take more control of the process,” said Chris Bowden, CEO of Utilyx. “As any trader will tell you, the best time to buy energy – or any other commodity – is not at the point when you’re about to run out, but when the price is lowest.

“Big energy consumers clearly think that more price hikes are on the cards and are locking the value of their contracts to protect themselves against further increases. And although there are encouraging signs that some companies are reviewing the forward curve on a monthly basis, that so many aren’t doing this indicates the understanding of today’s energy procurement conditions is far from complete.

“The problem is that a fixed two year contract could still expose consumers to an even greater budget increase when that contract expires. Many manufacturers and retailers were burnt last year: they predicted a ten per cent price increase and were faced with a 60 per cent growth in reality. But while they appreciate the risk this year, they are burying their heads in the sand when it comes to dealing with it, in the hope that it will miraculously go away of its own accord. That’s simply not going to happen.”