

# LEAN THINKING

## Lean manufacturing - Have you made a

### profit today?

**T**his is not a trick question for manufacturers as the substantial majority of small to medium sized jobbing manufacturers that I speak with on a daily basis, namely: furniture manufacturers; kitchen manufacturers; shop fitters; timber joiners; window and door manufacturers and the like throughout the country, do not know whether they have made a profit on a daily basis.

To answer the question for you - the only way you can know whether you have made profit on a daily basis is to achieve the following:

- 1 Have a current and accurate overhead cost per productive staff member per hour
- 2 Have accurate budgeted labour times costed into your quotations or pricelist
- 3 Not exceed your total daily Downtime hours. [If you have 10 factory staff your budgeted daily Downtime, which is allowed for on your overhead cost calculation, might be for example 10 hours Downtime daily or 50 hours Downtime weekly. You need to ensure that your budgeted Downtime hours are not exceeded daily and weekly]
- 4 Complete all your manufacturing jobs within your budgeted times

Common mistakes manufacturers make - which means that they do NOT know whether they have made a profit in their businesses on a daily basis are outlined as follows. I suggest that you use a pen to rate your company performance next to each of

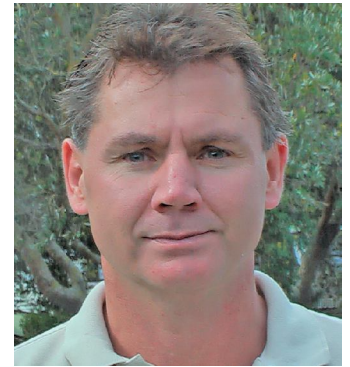
the eight points below - 'We do very well', 'We do reasonably well', or 'We do poorly or not at all'

- 1 Lack of any current (ie 2011) and accurate overhead cost calculation to know the true cost per productive staff member per hour to run the factory [on average, most Australian small to medium sized jobbing manufacturers range from around \$60 to \$80 per productive staff member per hour overhead cost. Some manufacturers are higher than \$80 per hour when any or all of the following apply; rent cost is high, the ratio of non productive to productive staff numbers is high or a lot of expensive machinery means annual depreciation cost is high]
- 2 Office staff and management staff numbers and salaries, which are generally treated as an overhead cost, have changed significantly from the last time an overhead cost calculation was carried out in the business [if at all an overhead calculation was carried]
- 3 Office staff and management working unproductively by not completing their pre production jobs on budgeted times. Acknowledging that most manufacturers do not have budgeted times for pre production jobs (ie pre production jobs include for example designing, programming and materials ordering [although this is changing and progressive manufacturers are both budgeting their labour times for their pre production processes on each job and also time tracking actual times on those same jobs. This is making a substantial improvement to office productivity, cost savings and profitability]).
- 4 Little idea of total actual Downtime

- hours daily and weekly
  - 5 No budgeted labour time per stage of Manufacturing jobs
  - 6 Job costing (ie back costing) does not occur in the business or occurs infrequently. This means that mistakes in costing budgeted labour times in quotations or pricelists go unnoticed and are likely repeating themselves daily. So budgeted labour times in quotations and pricelists are generally inaccurate
  - 7 No time cards that factory staff fill out to confirm what jobs and times they worked on and completed throughout the day. Or time cards that are filled in by factory staff at day end, or week end, so times recorded on all jobs are highly inaccurate [such 'manual' time cards are commonly referred to in the industry as 'lie sheets', 'cheat sheets' or 'crime sheets'.]
  - 8 No or inadequate assessment by management of staff and factory productivity reports to ensure that budgeted labour times on jobs are achieved daily and not exceeded
- The solution to resolve all these eight issues outlined above is to put a few 2nd hand PCs on your factory floor yourself (it will cost you approximately \$1,000) and invest in labour management software (which will take you a week to put in and learn). Labour management software tracks all your actual times on all Downtime jobs and Manufacturing jobs and compares them to your budgeted times. Labour management software can be implemented in your business in one day and working well and achieving significant gains in your business within five days. Labour management software costs \$11,000 for most factories and full

Excellent firms don't believe in excellence - only in constant improvement and constant change.

- Tom Peters



by Sean O'Sullivan

return can be achieved in less than two months. Suppliers of Empower labour management guarantee both:

- 1 Successful implementation of software in your business
- 2 And significant factory productivity gains in your business

Empower Software guarantee successful implementation and significant productivity gains because; 1) they have been doing this for ten years and 2) they have implemented time tracking software at over one hundred and twenty manufacturers to date. For your interest the least increase that has been achieved on one manufacturing site, in ten years across one hundred and twenty manufacturers, is a 15% factory productivity increase - which for this particular client's original investment of \$11,000 the annual return was \$140,000 per year saving in wage cost alone.

I suggest that you go to [www.youtube.com](http://www.youtube.com) now for a short time and type in empower software time tracking and you listen up to fifteen or so four to five minute short videos of manufacturers talking about how labour management software has transformed their factory productivity and profitability.

## Green NZ innovation in global transport market

**T**he New Zealand inventors and developers of SkyCabs would like New Zealand to capitalise on a unique design of clean green elevated passenger transport beating legacy engineered transport modes.

The SkyCabs design received a world-wide PCT clearance and is secured with NZ Patent, Trademark and Copyright and has been extensively patented and trademarked in US, Europe, Asia and Australia.

Its high IP value lies in the patented principle of being able to run high volume and demand driven two-way traffic with very light weight cabs from a single rail beam dramatically reducing construction cost, land demand and visual impact. There are huge opportunities to carve a niche or invest in an annual worldwide \$17-50 billion passenger transport market.

As this system is truly a rapid

passenger transport system for busy urban use, shifting large numbers of passengers, the market for this system in existing built up cities is global and also includes applications in private investments such as theme parks or airport developments. Therefore this high-value congestion and pollution-reducing patent has multi-million dollar export opportunities for NZ offering companies involved in engineering design or modular-type manufacturing and construction, IT solutions or supplying components a unique future focused business opportunity.

In June, as part of the HERA's business opportunities development program, a workshop was held with interested NZ companies about industry input into the building of a demonstration track planned for this once-in-a-decade invention on a University of Auckland site. There will be an opportunity to extend the



demonstration track to become a useful pilot line.

How the SkyCabs system works was explained in detail. Comparisons were made on how SkyCabs with an estimated construction cost of \$15 million per km fares to the latest US\$54 million per km light rail line committed to in Minneapolis, and to the ULTra PRT at Heathrow. The potential offered to solving with huge cost savings New Zealand transport issues was also outlined.

The SkyCabs developers also outlined business model options

for industry contributions to the project and how this represents a pathway of a NZ Inc approach to climbing out of our economic woes with high value, innovative and IP based niche market product development largely for export markets.

Within this project are plenty of opportunities in exporting know-how, processes, components, assemblies or even whole turn-key projects.

**nextSTEP**

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