

Pricing to Win

Internal Benchmarking

The following four real-life case studies illustrate a simplified approach to managing quotes and prices as well as highlighting an important tool for empowering management oversight and control.

Saucepan Manufacturer. He approached me at the conclusion of my talk and said he had recently completed a major revamp of information systems at his manufacturing plant. It appeared that following six months consulting input by one of the big six accountants, he had installed an IBM mainframe. The resulting library of computer printouts made his accountant happy but left him with a sense of frustration at his inability to get a grip on what was going on in the business. Would I be able to visit the plant and perhaps give him some advice on what to do?

As I was scheduled to fly out that afternoon, I agreed to call in at his factory on the way to the airport on the understanding it would have be a very brief visit indeed.

On arrival at the plant, I was ushered into the conference room and introduced to a sceptical looking accountant supported by the big six consultant called in for the occasion.

Seeking to gain an overview I asked for the target sales and gross profit for the year ahead and wrote them up on the board:

Sales	\$54,000,000
Cost of Materials	\$32,400,000
Gross Profit	\$21,600,000

I then asked for the targeted production hours, which the accountant had no trouble in supplying from the print outs as 270,000 hours

Dividing the gross profit of \$21,600,000 by 270,000hrs gave an average of \$80 gross profit per hour.

I asked for a representative sample of invoices and they extracted two from their largest customer, which I analysed as follows:

Invoice Price	Cost of Materials	Gross Profit	Production Hours	Ave GP per Production Hr.
100,000	70,000	30,000	1,000	30
120,000	80,000	40,000	1,200	33

Further analysis of another five invoices confirmed an average of \$33 gross profit an hour. Given the customer took 55% of output, but contributed only \$5,000,000 of the targeted gross profit (1), the remaining 45% of customers would need to contribute an average gross profit of \$137 an hour if the business was to achieve target.(2)

“I knew we were being screwed!” exclaimed the owner, “But I didn’t know by how much. They threatened to take their work offshore if we didn’t go along with their demands”.

I said my farewells, leaving the consultant and the accountant searching anxiously through a large volume of printouts.

Furniture Manufacturer. I met Bill some years ago when he was looking into the concepts underlying internal benchmarking. We kept in touch and I caught up with him during his consultancy assignment with a large UK furniture-manufacturing group.

He explained that he had been able to make substantial savings in production and initiate some positive moves in marketing, but the client had yet to turn the corner.

When asked if he had applied internal benchmarking he said the accounting and data processing staff delivered extensive management reports giving detailed feedback on every aspect of production and marketing. As such, he hadn’t felt the need to go any further down that track.

Agreeing that it wouldn’t do any harm to look at a benchmark, we divided the targeted gross profit by the targeted productivity to arrive at £55 average GP per hour.

A	Gross Profit (3)	£29,700,000
B	Productive (billable) Hours	540,000 hrs
C (A/B)	Average G.P. per hour	£55

Bill had no idea how £55 compared with the gross profit per hour flowing from each product of the 150 products but said he would find out.

We met three days later, the time it took for the data processing section to write a program to extract the information. (4)

As we reviewed the rates that ranged downwards from £90 to £20, Bill's face turned distinctly ashen coloured. Pointing to the £90 he said it had been discontinued, as had the next in line at £70. The item of furniture currently in high demand and largely responsible for the high level of productivity, stood at £35.

"There's been a major shift in product mix. I need to get back to the factory," he exclaimed, picking up the file and heading for the door.

It must have been five or six weeks later before we met again. He told me it had taken several days to get some action. But once the implications were grasped, the Finance Director came on side and helped get the message through to the MD. He in turn called a meeting of the management team. Pointing to the item of furniture contributing £35 an hour he explained the need to get the contribution up closer to £55. They could do it by cutting back on materials, or buying materials at a better price and/or by improving the efficiency of manufacture. Whatever they did, quality was not to be downgraded.

The team met regularly to brainstorm ways and means of improving the contribution in nominated products. Faced with decisions on new designs, the MD's first question was "What's the contribution?" and if it less than £55 it was sent back for redesign.

One Friday afternoon after the factory had closed, Bill walked into the MD's office to find him slumped at his desk, head in hands.

"I've just been around the factory" said the MD. "We have been knocking 400 men off an hour early every Friday for the last fifty years to clean up the factory. I've just realised it is costing us one million on the bottom line. We could get a contract cleaner to do the job for less than fifty grand!" (5)

The Printer: "I put 25% on every job to cover profit, but at the end of the year I never make more than 5%. Can you help?"

I pointed out that he must have gaps between jobs, or if not gaps, then the jobs were running well over his estimated times. In other words his output was not matching his potential. He assured me the business was 'flat out' and

that he himself was practically burned out handling the pressure.

Rather than spend time and money he didn't have in dissecting the cause of the problem, we agreed to start by establishing a target average rate of gross profit per hour as a benchmark.

A	Total Expenses (excluding materials):	\$400,000
B	Target Net Profit	\$100,000
C (A + B)	Gross Profit	\$500,000
D	Production hours paid	15,000
E	Productivity %	67%
F (D x E)	Hours targeted for billing	10,000
G (C / F)	Average GP per Hour	\$50

Because he worked out his prices by applying a percentage mark up to materials and labour and machine times, he had never viewed the overall contribution per hour. As such, \$50 looked too high by far. But analysis of a sample of invoices demonstrated an actual gross profit per hour ranging from a \$120 down to \$30, and on the sample, averaged out at very close to \$50.

He agreed to compare quotes and prices against the benchmark, and list every invoice daily in such a way that the average gross profit per hour could be identified.

After ten weeks the results were as follows:		
Target Gross Profit	2000hrs x \$50	= \$100,000
Actual Gross Profit	2000hrs x \$54	= \$108,000
Variance	+ \$4	= +\$8,000
After 20 weeks the position was as follows:		
Target Gross Profit	4000hrs x \$50	= \$200,000
Actual Gross Profit (6)	3800hrs x \$58	= \$220,400
Variance	+\$8	= +\$20,400

Having got the message he became ambitious about the possibility of getting orders for long run jobs from major corporates. Well aware that none of his competitors knew their precise position when quoting, any more than he did prior to benchmarking, he hung out a well-baited hook, got his foot in door and proceeded to catch some big fish.

Following his appointment as Chairman of the Annual Conference of the Printing and Allied Trades, I remarked that it could be beneficial to participants if they were addressed on the importance of internal benchmarking. He

laughed loudly and said he would make it a priority suggestion following his retirement.

The Electrical Contractor: He employed 20 technicians installing electrical circuits in high-rise buildings for computer networks. In conjunction with his accountant, and based on 6 billable hours per day per technician, we had established a weekly target of 600 hours by \$45 per hour. Now some six months later, he claimed he was losing quotes at \$45 and had to reduce to \$40. But that threatened to send his bottom line into the red.

Asked where he got his times from when quoting, he said he got them from the estimator who got them from the computer, which in turn was fed by the daily time sheets handed in by the technicians. Asked when he had last checked the validity of times, he shrugged his shoulders and indicated he was too busy to carry out checks.

Pointing out that in such circumstances times inevitably blow out, he was advised to reduce the times used in making up quotes, in order to maintain the benchmark at \$45. The percentage reduction of 11% to computer times was worked out as follows:

100 hours x \$40	= \$4000
\$4000 / \$45	= 89
89 hours x \$45	= \$4000
100hrs – 89hrs	= 11%

He applied the reduction, maintained the benchmark at \$45

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NOTES

1. $(270,000 \text{ hrs} \times 55\% \times \$33 = \$4,905,000)$
2. $(\$16,600,000 / 121,500\text{hrs} = \$136.6)$
3. Exclusive of direct wages and other factory oncosts normally applied in traditional cost accounting.
4. Because of need to identify and then extract the direct oncosts normally applied to materials.
5. $(400 \times 1 \text{ hr by } 45 \text{ weeks} \times £55 = £990,000)$
6. It is the comparison of the GP per hour of each quote or invoice with the benchmark that makes the difference. Productivity will not normally respond as quickly at the rate.
7. Financial statements normally arrive weeks/months after the period to which they refer and give little if any indication of how actual performance relates to potential performance for given resources.
8. Activity Based Costing notwithstanding. Cost Accounting software designed according to traditional concepts, buries rather than masks the picture, under a deluge of detail.

and quickly recovered lost ground, illustrating the interdependence of time and rate at the heart of every business, be it manufacturing, service, retail, contracting, trucking, restaurant or café.

Summary: The concepts illustrated in the case studies were developed after several years working with business researching the most cost effective approach for accountants to provide much needed management advice for their clients.

The research showed quite conclusively that whilst traditional profit and loss statements have little relevance for timely management decision-making (7), there tends to be a blind acceptance of a traditional costing approach. Expenses are apportioned directly or indirectly to one or more cost centres and overlaid with percentage add-ons, with the result that the true picture is masked. (8)

Other things being equal, the business that performs more efficiently and productively per dollar of expense than the competitor, will win the day. Such a business will ideally be in a position to know how it is performing daily and accumulatively without having to wait for information feedback delivered well after the event.

Reference to a benchmark which takes account of both time and rate, in conjunction with weekly comparisons against an overall target on which the benchmark is based, gives management the opportunity to make timely and relevant decisions. Without such a benchmark, great numbers will continue putting on 25% and ending up with 5% and others sadly, will expend scarce resources groping for unworkable solutions.