

On the back of an envelope

This was the subject of an article by Jon Bentley, published March 1985 in the British Computer Society's *Computer Bulletin*. It has survived many of my paper purges over the years because I so liked the concept: a few rough calculations scrawled on the back of an envelope can save huge amounts of time and money when they unearth some basic flaw in the assumptions. OK, today you'd use a calculator, but who's going to read an article titled "The calculator"?

I recalled this article recently, after a consultation with a client who was finding that he wasn't bringing in as much money as an entrepreneur as he had hoped; in fact it wasn't even as much as he had been earning as an employee. He had come for advice on improving marketing, so he could do more business. As we heard more about his process, it became clear that each job was taking at least two weeks of mostly full time activity, and was netting him around \$1,500. Even if he spent no time on marketing, and still by some miracle filled his year with 26 jobs, he would be bringing in \$39,000 a year. \$25,000 would be a more likely result allowing for down-time and other overheads, and that wasn't what he had in mind when he decided against the traditional employment scenario.

A quick calculation on the back of an envelope would have revealed that better marketing was not the issue. In fact he really couldn't afford to take on more of the same business, if he was to improve his income. That particular consultation continued with us providing advice on pricing and on reducing the time spent to produce his product.

While most small business people develop a business plan when they are first starting, as time goes on, they forget to revisit the plan. Every new job or process should be quickly reviewed to see if it makes sense, and existing practices looked at from time to time to see if changes are needed.

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He is semi-retired but accepts contracts to help finance his expensive hobbies. David retired from a 33-year career in corporate IT and now specialises in developing database applications for Windows platforms, web-sites, and generally in improving business processes by simplifying, clarifying and beautifying all kinds of business documents.

His articles are regularly published in the Microsoft Small Business forum.

You can learn more about the work he does at www.creekwood.ca.

Reality checks need not be confined to financial numbers, either. Without going overboard, think about measuring and estimating every major aspect of your process. Time, space, weight, effort, impact... you name it, it can be measured, and with more numbers, you can make better decisions.

- You can make \$10 on the resale of a fancy pillow – but have you worked out how much space 10,000 pillows will take up in your home-based business?
- Concrete garden gnomes are going cheap from your distributor, but you're a mail order business—maybe your carrier has a maximum weight limit, or stronger cardboard boxes will cost too much. And how many can you put on your storage shelving before it collapses?
- You're going to build up a mailing list by hiring someone to surf the internet for e-mail addresses—better do a test to see how many valid addresses the person can record and test per hour. Will it be worth it, and will the proposed recipients really appreciate another piece of spam?

When a measurement isn't available, make an estimate and err on the side of caution. If your pessimistic calculations indicate that the project is feasible, then you're probably OK, and it's worth your while to look more closely. If the numbers don't work out, then investing more time to get a better estimate may not be worth your while. If you do want to get a better fix, do a quick sensitivity analysis on your calculations and re-check the estimates for the numbers that make the most difference to the bottom line.

Whether you use the back of an envelope, a cocktail napkin or a calculator, doing some basic math can help you build a better business.