

Total Cost of Ownership

Staying in tune with technology saves time and money

It was 5:30 p.m. and the day was winding down, leaving me to concentrate on the piles of paper on my desk until the phone rang. It was the local sales representative supplying my records center's handhelds. He launched into a well-rehearsed speech about the latest technology in handhelds and how they would save me tons of money and time. But my handhelds had worked fine for the last 10 years; did I really need to replace them? I thanked my rep for his time and hung up as quickly as I could, returning to my paperwork.

Sound familiar? At one time or another, we've all dealt with changing technology and have had to ask ourselves, "If my current technology works well, shouldn't I just leave it alone?" You could, but it may be costing you money.

Often the cost of technology isn't simply calculated by looking at the cost in isolation—the amount you've already paid for

outdated devices. You also have to consider the impact on your business as a whole.

Total Cost of Ownership

One solution is to look beyond the list price and focus instead on the total cost of ownership (TCO). According to the Internet's Wikipedia, TCO "is a financial estimate, designed to help consumers and enterprise managers assess direct and indirect costs related to the purchase of any capital investment, such as (but not limited to) hardware and software. The purchase of equipment can include initial purchase price, repairs, maintenance, system upgrades, technical service and support, networking, security, user training and software licensing, among other expenses."

It sounds complicated and time-consuming, which it is, and especially daunting if you're staring at mounds of paperwork. However, TCO provides a framework for good financial



analysis of investments and acknowledges that “first cost” doesn’t amount to “total cost.” Unfortunately, many businesses fail to understand this and instead rely on total cost of acquisition (TCA) to make buying decisions. TCO can—and often does—vary dramatically from TCA, although TCO is far more relevant in determining the viability of any capital investment, especially with modern credit markets.

Looking at purchase costs isn’t enough. Let’s face it: Everything is expensive when you first buy it. But how can you use this to make better buying decisions?

The answer is by using easy mathematical calculations to work things out, focusing on where savings can be predicted or revenues perceived. This gives you a less-complicated and time-consuming version of TCO, allowing perspective on a potential purchase so you can find a comfort zone.

Quick ‘n Dirty TCO

A fast way to determine TCO is to only consider some of the critical elements when purchasing new technology aside from just the initial purchase price. For example, when my sales rep tried to sell me the latest and greatest handhelds, he told me staff members could upload and download data without returning to the office. Plus, the new models have a three-year warranty.

My employees walk in and out of the office an average of 10 times a day to place handhelds into a cradle to transfer data. Conservatively, each journey takes 15 minutes. I can reflect on my situation using a simple spreadsheet:

	Assumptions	Year 1	Year 2	Year 3
Purchase Cost	Depreciated	\$ -	\$ -	\$ -
Annual Repairs		\$250	\$250	\$250
Download Time	10 Journeys per day			
	15 Minutes per each hour			
	\$12 Hourly rate			
	\$30 Daily cost			
	252 Working days			
Annual Cost		\$7,560	\$7,560	\$7,560
Accumulated		\$7,810	\$7,810	\$7,810
		\$15,620	\$23,430	

I budget \$250 for repairs each year for the old units, but had no purchase price because they’d been depreciated by the business many years ago. Add it up and my costs for repairs and downloads was \$650 per month over three years.

The new handhelds cut unnecessary trips to the office by one-half. Still, they’d require hefty costs up front: approximately \$4,500 for the new gadgets, additional equipment and training.

I couldn’t see how spending this money made sense, but I needed to look past that TCA and focus on the bigger picture, so I entered this information into a similar spreadsheet:

	Assumptions	Year 1	Year 2	Year 3
Purchase Cost		\$2,800	\$ -	\$ -
Additional Equipment		\$650		
Setup & Training		\$1,000		
Annual Repair Cost	Warranty	\$ -	\$ -	\$ -
Download Time	5 Journeys per day			
	15 Minutes per each hour			
	\$12 Hourly rate			
	\$15 Daily cost			
	252 Working days			
		\$3,780	\$3,780	\$3,780
Annual Cost		\$8,230	\$8,230	\$8,230
Accumulated			\$12,010	\$15,790

Suddenly, things looked different. Despite the initial purchase price, which I showed as a complete year-one cost, the savings over time were significant. If this translated into increased productivity and less overtime payments, new technology really would save me money.

As expected, repair and download costs increased slightly the first year, but over the same three-year period fell to \$438 per month. Not only that, I could get some marketing and promotional mileage out of the new investment!

The picture was becoming clearer. The new technology would positively impact business and quantify the savings or increased productivity. By putting a monetary value onto these, I could make some comparisons to alleviate my initial spending anxiety. With a bit more thought and research, I could fine-tune the spreadsheets and make an informed and balanced decision. I could also review them periodically to check my assumptions were correct and allow me to learn from this experience.

So, when new technology is staring you in the face, consider the big picture through quick and dirty TCO. Your internal operations—and your staff—will be very grateful. **ISS**

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