

# Understanding and accepting the true cost of quality

At a time when the cost of just about everything seems to be rising uncontrollably, it's no wonder that many companies look to outsourcing the manufacturing of their products, according to Michel Jullian, chairman of OCM Manufacturing in Ottawa, a contract manufacturer with a 25-year history in the manufacture of low- and mid-volume, high-mix products. Jullian (michel.jullian@ocmmanufacturing.com) says that shifting the responsibility and the cost of manufacturing to another party may seem to alleviate the constant pressure on profit margins, where it becomes someone else's problem.



**Canadian Electronics:** Can shifting responsibility for costs illustrate a lack of understanding of the true cost of manufacturing?

**Michel Jullian:** In North America, our overall sales are running about 7% up over last year (2012) – close to 8%. What we're seeing in Canada is a strong 9% compared with the U.S. at around 4.5% increase in sales year to date through August (2013). It's a key market – the first market that Digi-Key got involved in outside the U.S. via the Internet around 1998. We're definitely seeing good strength in the market in Canada.

**CE:** What about that 20% labor factor?

**MJ:** OEMs generally feel that there are always cost savings to be found in this area. And, while you might think the contract manufacturing (CM) industry has a rather high barrier for entry, new CMs seem to pop up all the time, willing to chase new business at seemingly any cost.

But, when you start cutting corners on labor, quality and reliability suffer. The cycle of offshoring and now on-shoring is evidence of this trade-off. Asia was initially appealing because its labor costs were a fraction of those in North America – but quality and service often suffered. Now, as that region's infrastructure is built up and the workforce advances, labor costs there are also rising – and companies are bringing products back “on-shore”, hoping to maintain those low costs while improving quality control. But it's simply not logical.

**CE:** Are our expectations out of whack?

**MJ:** As a society, we are surrounded by low-quality consumer products. Product bugs and outright failures are ubiquitous. In many cases, we become immune to poor reliability and sub-standard performance. We throw our failed devices in the garbage and purchase new ones.

The real problem comes when individuals apply these low standards to the niche products that Canadian OEMs are so good at designing. In our industry – the low- to mid-volume, high-mix manufacturing sector – we are daily witnesses to the importance of quality and performance of these products.

These are products that control industrial systems; products used in healthcare; products used in mission-critical environments; and so on.

They are the specialized, high-value innovations that drive our manufacturing sector. And they MUST perform well in the field. In fact, many of the products we manufacture come with warranties of decades or lifetimes – not months or a few years.

**CE:** Why do some decision makers in the supply chain still often opt for the “cheapest” solution?

**MJ:** Perhaps the thinking is that, if a product goes off the rails, they'll at least be able to say, “it was cheap.” Perhaps the pressures on cost have simply become unbearable, and a major mind-shift is needed.

At some point during the past 20 years, we lost the understanding of what true quality costs, and why it matters. We stopped acknowledging the importance of those costs in the design and manufacture of products.

As a result, companies today generally don't allocate enough of their resources and budgets to produce quality goods. They may have unrealistic expectations of what the costs should be.

**CE:** Is there any good news for Canadian product developers struggling to get to market – and to succeed?

**MJ:** There is one key opportunity in the manufacturing life cycle to control and reduce labor and other costs to the lowest possible threshold for that product, and that's in the design phase. Companies today

rarely consult with manufacturing and supply chain during design, but this is the phase at which the cost of manufacturing can best be controlled. By involving manufacturing and procurement up front during design, the best possible decisions can be made in terms of minimizing labor, selecting the cost-optimized parts, and considering other costs, such as shipping.

Not only can this approach yield the best possible cost scenario for a product, it also ensures that everyone involved in product marketing, design, development, and manufacturing has a clear understanding of the true costs of quality.

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