How High Tech Innovators can win Globallv ?

By Mark Tayles

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With the global 'hi-tech meltdown' of the last two years, there has been some obvious doubt raised about the ability of Canada's high tech companies to compete globally. Compounding this doubt has been the countless articles discussing the threat of low cost manufacturing regions (i.e. China, India, Eastern Europe) to the Americas' manufacturing base.

High Tech innovation is indeed alive in Canada. Further, Canadian innovation is continuing to find ways to compete successfully in Global markets. As a Canadian involved in distributing electronic components to Canada's OEM base, I've developed a perspective on the topic....

First, 70% of our total manufactured goods are shipped as exports...in other words, the majority of our customers' products are destined for foreign markets.

Second, for 20 years - I've seen many companies come & go...including being acquired. In the post mortem process, I'd attribute the '2nd leading cause of failure' to 'failure to innovate' (Incidentally, the leading cause is lack of strong leadership.).

Third, Distribution of components, takes us to the heart of Innovation. We represent the world's best supplier products...or what I call 'enablers'. These suppliers, also live & die by their ability to innovate. We then work with the innovative engineers within a broad group of customers in Canada, who harness these enablers within their own innovative products.

HOWEVER, the ability to compete & win globally, isn't just dependent on the innovation coming from our Canadian companies' research lab. Today, innovation is required in all functional groups.

When one thinks of Innovation, we're programmed to immediately (and especially if we're involved in high-tech) think of Research & Development; Engineering breakthroughs, etc.

But what is innovation? The process of bringing out new products? The broad area of R&D? All of these are examples of innovation, or at least 'indicators' of innovation. The dictionary defines Innovation as something 'newly introduced'...'the act of introducing something new'. Or the verb, 'Innovate' as 'to bring in new ideas, methods, etc'. It's this last point I want to make sure that I underscore.

Too often, Innovation is considered mostly the domain of the engineering & development teams. However, Innovation also can be (and the most successful companies believe this) the mantra of Operation & Production teams.

It's truly a sad event, with respect to a Canadian Hi-Tech company, when they have a world-beater product idea or Innovation....but it never fulfills its rightful place in history because of the firm's failure to get it to market quickly & economically.

Clearly, Good Ideas aren't enough....ideas have to get to market quickly AND cost effectively. We all know examples of where innovative products within your company failed, or where entire companies failed. I'm submitting is that Innovation has two prongs...

1. Product innovation... and,
2. Method...or Process Innovation...

(note: creativity expert Jim Higgins would also cite Marketing Innovation & Management Innovation)

Two such examples where firms have embraced both Product & Process innovation are...

RIM pagers for instance. RIM in Waterloo manufactures their own products...and - they own a world-class process.

BW Technology in Calgary, and their 'gas sniffing' product line is another excellent example. They have great technology, but they also have a 'world class' factory that is agile enough to support their stated 'customer lead-time' goals.

Incidentally...these are also both 'Globally Competitive' companies. They have to be, since the markets that they compete in are Global.

Let's turn to this thing called Process Innovation which is equally applicable to any process...be it Engineering, Product Development, Front/Back Office - or manufacturing. One of the most effective tools in Process Innovation is something called 'LEAN' thinking which includes 'Value Stream Mapping'.

I was first introduced to LEAN, and Value Stream mapping, as a member of a Southwestern Ontario Mfg Group called the HPM (High Performance Manufacturing) Consortium. Although LEAN concepts date back to WWII, and probably earlier, what really brought this to the forefront was the book, 'Lean Thinking'...by James Womack & Daniel Jones – the duo who also wrote the "Machine that Changed the World", a runaway best seller which described the Toyota production system. Womack introduces the reader to the central concept of 'MUDA' a Japanese word that means 'Waste'. Or defined specifically as 'any Human activity that consumes resources BUT produces NO VALUE that a customer would pay for.'

So why do we harbor WASTE or MUDA inside our companies? Simply because over 50% of waste has become invisible because we live in it every day. Think about the consequences in trying to compete globally with a product? The price our companies charge for a product or service HAS TO cover the cost of all Value Adding items...including Materials...PLUS - all the non-value activities. I've heard the notion that our 'prices' in North America...are really considered 'Targets' , elsewhere in the world. We put a price on something...and someone on the other side of the world is saying...'I can build that for less'.

Intuitively, we should eliminate all Non-Value activities...but its not always easy or possible.

A graphic example we've seen in our company - & I'm sure many of you have seen in yours. Over the last 2 years our company has gone through rounds of 'right-sizing'. We (like the majority of your firms) had no choice but to learn to do without certain activities & services. It is amazing how many things we decided to 'do without' that we really haven't missed...or that haven't affected our ability to 'get the job done'.

Recently, Jayson Myers' – the Chief Economist for the Ottawa-based Canadian Mfrs. & Exporters who shared his "10 Challenges for Canadian Industry". Four of the ten, are particularly relevant to process innovation. Jayson and the CME believe that for Canadian Industry to stay competitive, we need to foster:

Awareness of the importance of manufacturing

The Ability to compete from a small market

The Strengthening of the capabilities of SMEs (small & medium enterprises).

Investments in innovation.

To close, companies that are competing well globally are all around us in Canada. Upon inspection of these companies, you'd likely find a couple of 'beliefs' they feel are paramount to their ongoing global success.

1. Innovation isn't exclusively the domain of R&D...but rightfully belongs in Operations & Manufacturing
2. A critical tool to a healthy 'Operations Engine' is this notion called 'LEAN' or 'LEAN THINKING".

"May 2003 be an innovative year for you & your firm!"