

TRANSFORMING MANUFACTURING:

Turning innovation into a competitive advantage

by Stuart Pothan

Manufacturers today face difficult times. According to CME President Jayson Myers, it takes seven hours and 54 minutes of every eight-hour production shift to cover the costs associated with operations, depreciation and taxes. That leaves manufacturers only six minutes per shift to make the money they need to sustain growth.

Although strategies exist to shift that ratio, one of the most critical approaches is to invest in innovation. Innovation is a new or better way of doing business that has the potential to create meaningful growth. The change adopted could be a new technology, a new process, a new distribution channel or even a new business model.

For manufacturers, this process is essential not only to business success but potentially even to survival. Unfortunately, in 2008, the Conference Board of Canada reported that our country ranks 13th out of 17 countries in the innovation category. Although we boast strong research and development tax credits, we lack policies to

you need to overcome the primary barriers to innovation, which include lengthy development times, lack of coordination among team members and a risk averse culture.

OVERCOMING THE BARRIERS

As you pursue initiatives to improve productivity, enhance customer service and exploit existing markets, it's essential to streamline your efforts. The projects you undertake will depend on your unique business goals and areas of potential. And while innovation is about more than just technology, technology can be a critical enabler for these initiatives.

One area of technology you should explore in any change effort is Information and Communications Technology (ICT). In addition to helping you manage critical business data, ICT lets you convert information in a variety of formats (such as voice or data) and share it

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ensure science can be successfully commercialized. As a result, many manufacturers focus on activities that preserve their existing models rather than exploring innovation.

The impulse is a dangerous one. Without meaningful innovation, manufacturers are destined to face ongoing challenges that hamper their ability to reduce costs and improve productivity.

THE CHALLENGES OF INNOVATING

According to research conducted by IDC Canada in 2006, manufacturers face three key challenges: productivity, customer service and exploiting existing markets. To successfully meet these challenges, innovation is critical. Similarly, given the emphasis placed on continuous improvement at the global level, manufacturers must innovate if they hope to differentiate themselves and compete effectively – both at home and abroad.

Yet, given the potential scope of these initiatives, they can't happen haphazardly. Organized planning is required to create a measurable and focused plan for growth. To achieve this goal,

across organizational boundaries. More significantly, ICT can help manufacturers overcome the primary barriers to innovation. Here's how:

Take the case of a chemical manufacturer that was having trouble tracking inventory at the locations to which it ships its products. To resolve this challenge, this company sought a new way to track its inventory and determine how much product to manufacture each year. Using technology to provide better information, the company improved coordination with its customers by allowing them to communicate how much product they had in stock and what quantities they anticipated needing. This helped the manufacturer better forecast how to supply its customers on an ongoing basis.

In another instance, a manufacturer of consumer goods was facing difficulty adapting its products to meet customers' evolving tastes. Through a technology solution, this company was able to better collaborate with customers to understand their needs. It then translated this data into business intelligence that helped shape the company's manufacturing processes and product designs.

In yet another example, a manufacturer of industrial and commercial machinery with no defined process for handling post-sale service, worked with its customers to improve service and boost retention rates. As a result, the company implemented a solution that allows customers to communicate with it directly about product challenges. Today, this manufacturer hears of product defects and service

advance of adopting any technological solution designed to support your initiatives.

How will you manage information? As they begin to innovate, many manufacturers find themselves inundated with vast amounts of raw information about their customers, or suppliers or staff. To turn

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challenges before there is a need or opportunity to escalate and this can often resolve problems on an accelerated basis.

Keep in mind, too, that not all innovation requires significant change to your business environment. A manufacturer in the US recently used a wiki to build a community of interest among its customers. A wiki is communal software that allows users to freely create and edit online content using any web browser. By relying on this type of open source site, this company strengthened customer loyalty and involvement – without making significant infrastructure investments.

MAKING IT HAPPEN

Of course, bringing a new concept into existence takes more than creative thinking. It also requires an organized and planned approach by people who understand the company's business and how to use technology to innovate.

There are three key questions to answer in advance of determining which initiatives are right for you:

Which solution best suits your needs? Although technology is a critical enabler of innovation, these initiatives are not only about technology. First, you need to understand the parameters of what you're trying to accomplish from a business perspective. For instance, there are dozens of ways manufacturers can improve their product design and manufacturing processes. As our examples show, you can pursue a Product Lifecycle Management initiative to ensure you have the capacity to service customers both at point-of-sale and for post-sales service. Or you can implement an Internet-based solution to capture customer comments and create a community of interest.

Similarly, there is no one size fits all solution for improving productivity. Some manufacturers may find ways to streamline their supply chain through Supply Chain Management. Others might improve business processes with Lean manufacturing or Enterprise Resource Planning. The key, above all, is to ensure that you clearly understand and articulate your initiative goals and related metrics in

that raw data into business intelligence, it's essential to ensure not only accurate and timely access to your information but to implement processes that let you convert company data into corporate knowledge.

How do you plan to secure your systems? Any initiative that involves extending your communication beyond organizational boundaries requires a careful review of the security implications. This is particularly true for initiatives that increasingly look to enhance collaboration among organizational stakeholders both internally and externally.

THE DANGERS OF INACTION

In today's rapid paced economy, innovation is not optional. If you do not evolve your processes or increase your capacity to innovate, you risk being left behind. At the same time, companies that pursue innovation tend to outperform their less innovative counterparts. In 2007, the S&P/BusinessWeek Global Innovation Index tracked the stock price of the top 50 innovators and found that they outperformed the average by more than seven per cent.

Yet, to unlock your potential and compete more effectively in global markets, you need more than just good ideas. To increase your odds of success, consider working with professionals who have experience taking all aspects of an innovation initiative into account – from selecting and properly managing the appropriate technology to adopting an effective security infrastructure.

By combining your knowledge of your business, customers and suppliers with guidance from ICT professionals, you can avert some of the more significant barriers to innovation and realize a higher return than just six minutes.

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