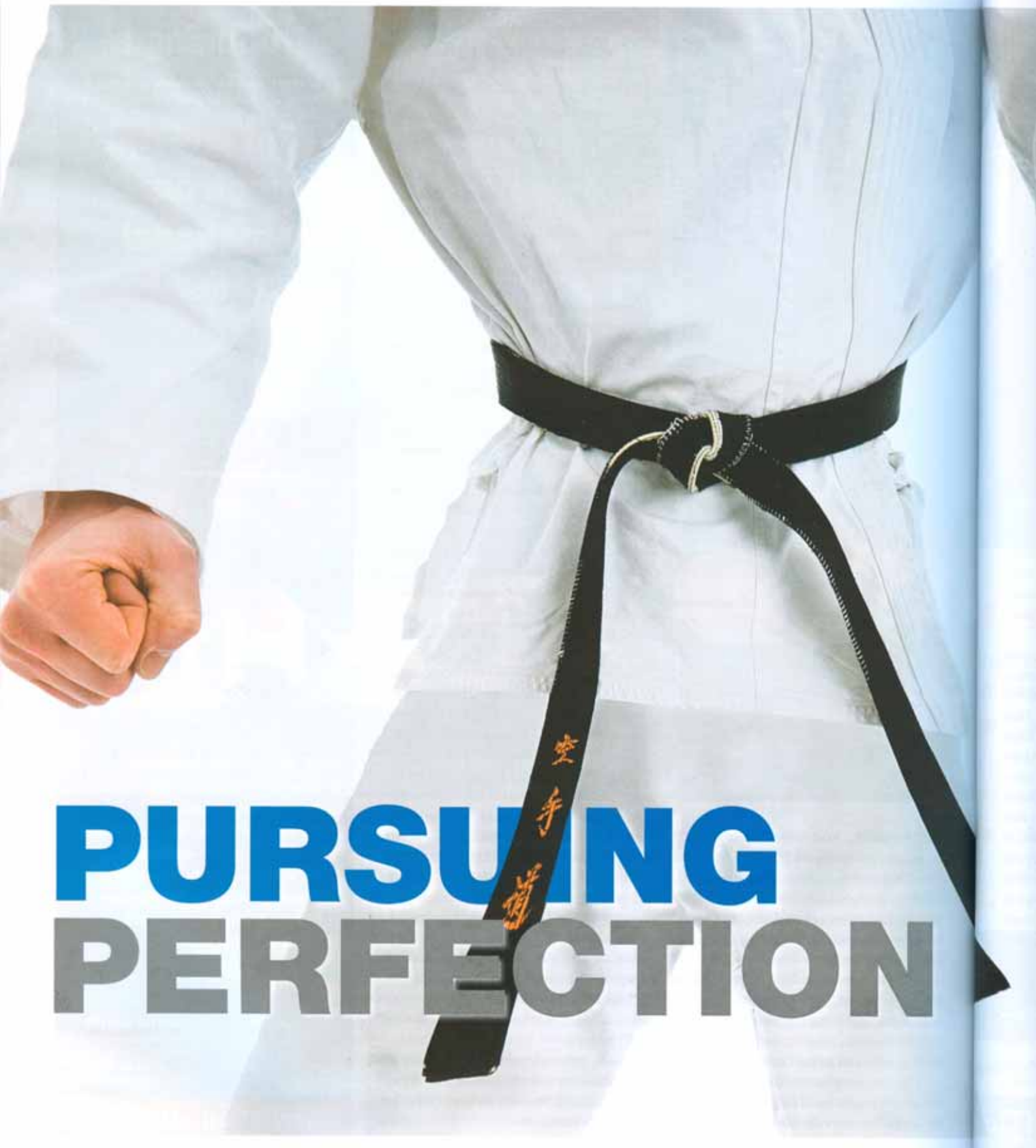

PURSUING PERFECTION

For any successful company seeking to eliminate waste and customer dissatisfaction, Lean Six Sigma might just be the answer, reports Casey McFann

Originally designed as a set of practices to improve efficiency and eliminate defects, Six Sigma is a management approach that uses statistics and observation to improve productivity, efficiency, value and customer satisfaction. Developed by Motorola, Six Sigma has become one of the most popular approaches to management and product improvement out there, especially within the supply chain.

In order to correctly and productively practice Six Sigma, you need to be Six Sigma certified. There are different levels of Six Sigma certifications – the yellow belt, green belt, black belt and master black belt. Though important, the certification remains just the title, as the real experience comes in actually getting your hands dirty through implementation.

"Six Sigma is the relentless quest for perfection," says Atif Rehman, Logistics Consultant, Xvise Innovative Logistics who has a Six Sigma Black Belt. "Whatever you do, there is always a cost associated with it. Six Sigma teaches you things are either black or white. It's all facts and figures. That's the best thing about it."

While Rehman acknowledges the fiscal benefits, he contends that the real paradigm shift came with his outlook on business.

"The way you think is completely changed. I'm much more analytical now. I always want to see the facts and figures," says Rehman "They say, 'Once you're a Six Sigma boy, you're always a Six Sigma boy.' It gets encoded in your DNA."

While some have come to call Six Sigma outdated (or as one GE employee told me 'so 2000') many businesses are beginning to revamp their processes to include elements of Lean Manufacturing. One of the challenges in discussing this now-modernised 'Lean Six Sigma' is coming to an understanding of what exactly that phrase means.

"Every Lean Six Sigma project touches the external customer relative to time, cost, or quality, if only indirectly," says James W. Martin, author of Lean Six Sigma for Supply Chain Management. "As the improvement team begins to identify and scope project opportunities, they must always consider the impact of the project including its eventual solution on the external customer."

A study released in April 2008 by Manufacturing Insights, an advisory firm headquartered in the US, showed that companies with high levels of maturity in their Lean initiatives (as well as their Six Sigma programmes) experienced significant benefits and competitive advantage. "Lean companies are growing revenue more rapidly, at higher profit margins and with more productive asset usage," writes Bob Parker and Jay Holman, authors of the report "*Lean Six Sigma – Lean Continues to Show High Performance.*"

The Manufacturing Insights report also included a case study that showed how Dupont combined Lean with Six Sigma to sustain momentum in its productivity improvement.

"To be honest, not a lot of people are aware of it in this market," says Rehman.

Martin agrees, and feels that a linear approach throughout the entire supply chain works best. "When was the last time a supplier actually came out to their customer's distribution centre or job site to understand how their products and services were actually used by their customer or customer's customers? Understanding our customers is not an easy task. We often inadvertently substitute our voice for theirs. This common

Time to tighten your belts with Six Sigma

practice causes miscommunication and disappointment for both the customer and supplier. Many Lean Six Sigma projects are based on the process breakdowns occurring due to inadequate VOC (voice of customer) information," says Martin.

As waste reduction remains an influential component of Lean Six Sigma, Martin stresses the importance of efficiency and oversight of inventory.

"Inventory is also a major barometre of supply chain financial performance," says Martin.

"In addition to improving key supply chain metrics, inventory analysis and control are important competencies which will help a company identify operational breakdowns throughout its supply chain.

This is because inventory investment and its turns ratio are barometres of how well the supply chain utilises its assets," says Martin.

"In fact, lower inventory levels are always preferred, but only if the operational system can satisfy external customer demand at the required target per unit service level based on an item's lead-time and capacity constraints. Instead, investment should be calculated optimally, by item and location," says Martin.

As businesses and supply chains have had to adjust to a more globalised economy, some feel you must be willing to put your current processes under constant scrutiny, just to keep up.

"The minute you go global, you've increased distance and lead times," says Colin Snow, Vice President for Ventana Research, a performance management research firm.

"The greater distances make it that much harder to coordinate with suppliers and keep them focused on lean goals. The increased lead times force companies to constantly make trade-offs between different transportation modes: putting your goods on a plane costs significantly more, but it reduces the idle time when the goods are in transit, whereas ocean freight costs less but can increase the overall amount of inventory in the supply chain and certainly increases the time that you're holding the inventory," says Snow.

Still, Snow believes that it is imperative for companies to become more agile and flexible, so that they can respond more quickly to changes in demand making Lean Six Sigma a mandatory initiative.

"The consumer is more fickle, and demand is becoming more and more variable, and meanwhile, nobody wants to hold the inventory. That means that companies sourcing from overseas must ensure that their suppliers are running as part of an integrated supply chain, getting parts and products to the dock on time so that ocean freight is a realistic option. It also is true that some companies are revisiting their decision to move their supply base offshore and are instead 'near-shoring' some portion of their operations back to nearby countries or domestic locations to meet the most volatile demand," says Snow.

Whether you are currently implementing Lean Six Sigma within your supply chain, or you have heard the advantages but have yet to take the necessary steps to 'tighten your belt', in times like these it seems well worth the costs.