BY DAVID JACOBY NUFAGIII

Analyzing the prospects for survival

estern manufacturing's share of the world economy is shrinking. Faced with a reduced prominence, intense price pressure, and structurally high labor costs, there might seem to be no path to profitable growth for most Western manufacturers.

Thus, Boston Logistics explored these challenges in its fifth annual State of Supply Chain Management study. The central question of the study is: "How Will Western Manufacturers Survive?"

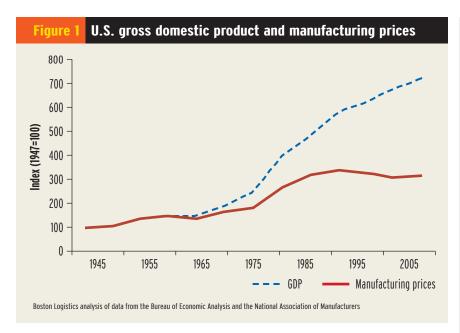
This study was based on an in-depth survey of approximately 100 manufacturers and operations management experts worldwide and interviews with 30 of them. The study benefited from the perspectives of corporate decision makers in the Americas, as well as in a variety of other developed nations, such as Germany, Switzerland, Sweden, and England, and in a variety of emerging economies, such as China, Taiwan, Brazil, Russia, Lithuania, and Saudi Arabia.

A standard practice

Offshoring is not a new phenomenon; it has been going on for years. China's exports, which had been very low and stable until about 1990, rose dramatically starting around 1991. They accelerated between 1990 and 2005 and spiked shortly after China joined the World Trade Organization in 2001.

Western manufacturers quickly noticed the opportunity related to low-cost Chinese production. Pioneering entrepreneurs sourced from China and set up entire business models based on foreign sourcing to serve their American and European distribution channels. This happened in a variety





of industries, from retail toys to industrial parts distribution—whatever could benefit from the low-cost competitive advantage.

Westerners gained trust in Asian manufacturing, which caused both the value and number of offshoring contracts to increase over time. There also was an extreme growth of outsourcing over the same period. (While offshoring refers to sourcing from overseas, outsourcing refers to the contracting of a third party to manufacture or deliver a service.)

China became the prominent source for low-cost offshore manufacturing capabilities, while India became a hot spot for business process outsourcing (BPO). BPO also is a key plank of Philippines' President Gloria Macapagal Arroyo's strategy to put strong growth drivers in place in her country.

The value of offshore arrangements has increased steadily. While the number of new deals has decreased significantly in the last two years, the cumulative value of arrangements in place has increased. Between 1950 and 2005, the U.S. manufacturing environment sent millions abroad, cutting in half manufacturing's percentage of the economy. This was predominantly due to offshore contracting.

Outsourcing and offshoring are not fads. Many large companies continue to outsource and offshore significant components of their businesses. More than 87 percent of survey respondents indicated they outsource some activities, and 50 percent said that more than 20 percent of their company's headcount is outsourced.

While the survey didn't ask every respondent if his or her company's outsourced activities were offshored, most of the outsourcing was. More than 85 percent of respondents said they offshore some activities, and 46 percent indicated that more than 20 percent of their company's unit volume is offshored. The cumula-

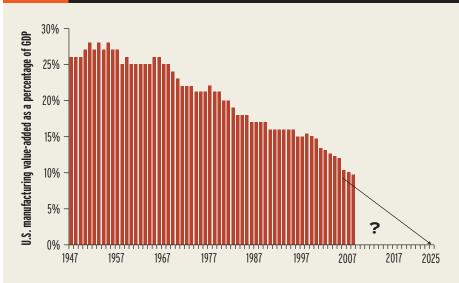
tive value of outsourcing contracts has risen from less than \$50 billion in 2002 to more than \$225 billion in 2007, and the growth has been steady. Even food processing is being outsourced by companies such as Hershey's and Nestlé.

The prime targets for offshoring are manufacturing and procurement. Both of these far exceeded the amount of information technology (IT) that is offshored. Seventy-one percent of respondents said they currently offshore some manufacturing, and 70 percent indicated they currently offshore some procurement. Further, 31 percent of respondents have set up an international procurement office. Services are outsourced by 40 percent to 60 percent of respondents and include laboratory processes, IT, call centers, and research and development.

Western manufacturers threatened

Western manufacturers are surviving mostly on productivity growth and squeezed margins. In real terms, however, prices of U.S. manufactured goods are falling. Since 1995, prices for manufactured goods have declined 9 percent, while nonmanufacturing prices rose by 22 percent, according to a report by the National Association of Manufacturers (NAM). The stron-

Figure 2 U.S. manufacturing share of nominal U.S. gross domestic product



Boston Logistics analysis of data from Central Intelligence Agency, National Association of Manufacturers, Economist Intelligence Unit, and Global Insight

gest increases were in health care, education, and construction. Output is high and relatively constant, but price competition is fierce.

For example, one operations management expert at Babson College, in Babson Park, Massachusetts, says, "This type of manufacturing will never come back. [The United States] will never make shoes again."

The outsourcing trend affects decision makers worldwide. Western traditional, made-to-stock-type manufacturers should be the ones most worried because the majority of their manufacturing is being taken to low-cost countries.

Interestingly, Western manufacturers are staying in business through productivity improvements. Competitive pressure has led to higher productivity through a substitution of high-cost labor with lower-cost capital and, hence, more profitable businesses. Nonfarm productivity increased by 2.9 percent per year since 1995 according to NAM.

Simply put, productivity has kept manufacturing alive. U.S. productivity rose 4 percent between 1979 and 2006 when measured by the inflation-adjusted value of output per hour. Productivity rates in North America continue to be the highest globally. In addition, in an interview in The Economist, Kevin Gardner, head of global equity strategy at HSBC, said Western European manufacturers have seen a resurgence of profitability in early 2008.

Still, manufacturing has declined from 25 percent to 30 percent of U.S. gross domestic product (GDP) after World War II to 10 percent today. The difference can be attributed to offshoring or domestic production absorbing price decreases over the period.

Survival plans

At the current rate of outsourcing and offshoring, Western manufacturing is arguably in danger of being marginalized. Should Western manufacturers accept that manufacturing is past its prime and offshore entirely, or is there hope?

Some Western companies are outsourcing their entire manufacturing operations to low-cost countries. This can be seen particularly in made-to-stock manufacturing, such as lighting and electronics. The two largest lighting producers fabricate their electronic drivers and ballasts

the remaining U.S. manufacturing base still can be offshored.

Finding success

Western manufacturers can thrive by filling a critical void in high-quality customized products and services. Plus, they can become profitable by pursuing

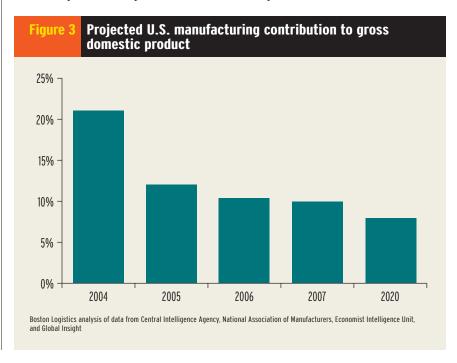
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abroad. A private equity investor notes that this also is the case for Vizio. That firm, which is the largest liquid crystal display television seller in America, manufactures 100 percent of its products in Asia.

Manufacturing now comprises only about 10 percent of the U.S. economy. Despite this downturn, leaders are eager to continue offshoring. Seventy-seven percent of survey respondents expect their company to increase the number of workers off shore over the next five years. Nearly two-thirds of

a business model that stimulates differentiation and focus through technological advancements and service offerings. Combining focus on technological superiority with the implementation of service offerings is central to successful manufacturing in the West.

Another key to success is differentiation on quality. While there will be a huge market at the low end, Western manufacturers cannot afford to migrate there because their labor costs are too high to export competitively to Asia. Therefore, rather than



giving up manufacturing as a whole, Western manufacturers need to learn how to effectively present products as the high-cost options. In the words of a Wall Street investment banker, "The economy will always demand manufacturers of premium, niche, [or] highend products, which don't compete by price but compete by quality and/or unique attributes."

Quality is important. Only about 30 percent of survey respondents listed cost among key success factors. Other factors are much more important to manufacturers' choices of offshore production locations. For example, the local market growth prospects are of higher priority to extraction companies than to process manufacturers because raw materials often can be sold only economically where they are extracted, whereas the output of process manufacturing operations often can be sold on worldwide markets.

Cost always is a driver, but it's not the main driver. While 60 percent of respondents agreed low cost is "quite important" or "very important," approximately 40 percent said cost is not driving their firm's business model. Still, outsourcing must balance cost reduction with operational excellence.

Low-cost countries typically have trouble achieving the quality levels accepted as the standard in Western industrialized nations. An American Chamber of Commerce study found 80 percent of manufacturers have increased quality control on goods made off shore.

What should you do?

The offshoring phenomenon has deep roots and long-term implications. While the trend seems to be decelerating, manufacturing infrastructure, organization, and strategies of companies in the West have been profoundly changed. In many cases, this has resulted in improved productivity and competitiveness and a stronger basis for sustaining profitability in the long term.

Manufacturers will need to make several changes, if they haven't already, to ensure that they prosper in tomorrow's global and competitive environment. They must build technology that can't be copied. Also, they must layer value-added services on top of manufactured products; these "product-services" increase customer loyalty and profitability and tap the innovation capabilities of the enterprise, which cannot be commoditized. Finally, leaders would be wise to develop price and brand as highquality producers, while offshoring and divesting low-end, repetitive, and labor-intensive work.

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