



2010 Engineered Products & Services (EPS) Industry Perspective

The financial meltdown and resulting economic crisis is easing, and the U.S. economy is showing signs of improving. The recovery remains fragile, however, and growth will remain modest for the foreseeable future.

A Brief Look Back

The challenge of the past year for many engineered products and services (EPS) corporations – including those in aerospace and defense, industrials, the automotive sector, and transportation – was simply to weather the crisis. Early in the year, Wall Street cast doubt on the future of many U.S. companies as their valuations plummeted. U.S. automakers made daily headlines as they struggled to remain viable. The General Motors Corporation, an American icon, was removed from the Dow Jones Industrial Average, whose name is now an anachronism given that only six of the Dow's 30 companies compete in the EPS sector.

The mandate from investors to executive teams and boards was unequivocal: Improve liquidity and cash flow. The resulting all-hands-on-deck attitude may have had some near-term benefit. Management turned its attention back to basics with a focus on cost reduction and capital restructuring, and developed a heightened sense of priorities. On second look, though, these crisis-driven short-term remedies may have only exacerbated the widening gap between U.S. industry leaders and the best-run global companies from emerging growth markets. For example, Hyundai Motor Company is now the world's fifth-largest automaker, and announced record-breaking profits in the third quarter of 2009.

Competitors in developing countries were not immune to the crisis, but they were still operating in a growth environment, so they kept their focus on the future even as they endured their own economic woes. They were able to continue building on their emerging strengths in engineering, product development, critical skills, and low-cost supply chains.

One Booz & Company client based in an emerging market has established a clear plan for industry leadership by 2020, with specific stretch targets in production, sales, and markets served. To achieve its vision, the company has outlined how talent will be developed and managed, and has articulated clear aspirations for how it wants to be perceived by customers. Most important, the 2020 plan is globally focused.

A Continuum of Global Competition

The shifts in global demand are striking. The International Monetary Fund projects the world economy will have shrunk by 1.1 percent in 2009, with mature economies, including the United States, Germany, and Japan, contracting by 3.4 percent and emerging economies growing by 1.7 percent. In 2010, overall global growth is expected to hit 3.1 percent, but China is forecast to grow by 9 percent and India by 6.4 percent. Meanwhile, growth in the United States is projected to be 1.5 percent, and in Europe, just 0.3 percent.

Until now, many domestically focused North American EPS companies have not had to compete globally for growth, but trends point to fierce new global competition. Emerging competitors could claim a sizable share of their home markets and simultaneously make inroads into the United States and Europe, where domestic players have long dominated. Newly industrialized giants on the receiving end of the outsourcing trend have been developing their engineering and services skills for years. Now they are poised to aggressively compete on the global stage. Three of the world's top five automobile-producing countries are in Asia (Japan, China, and South Korea). The Commercial Aircraft Corporation of China is developing an airliner to compete directly with Boeing and Airbus. China is also positioned to acquire the Volvo brand; meanwhile, Tata Motors of India has acquired Jaguar and plans to export its low-cost Nano to the United States. This comes as some emerging markets, namely India and China, have surpassed or are quickly approaching the United States in total number of English-speaking inhabitants.

As we emerge from the current recession, it is becoming increasingly clear that the United States' industrial and manufacturing strength, unrivaled in the post-World War II era, is now eroding at an accelerated pace. Globalization can be seen as a continuum along which some EPS sectors have evolved more than others. This spectrum includes, at one extreme, companies that are limited by government constraints, such as tariffs or export control. At the other extreme, companies are operating in a fully open, free market environment.

Companies that are inherently restricted to domestic markets, such as rail transport or freight operators, are typically the most limited participants in globalization. Next are companies that export products and services to reach international customers, but keep product development and manufacturing at home. These are followed by companies, such as British Airways PLC and the Lockheed Martin Corporation, that gain access to international markets through partnerships or joint ventures. Finally, truly global companies have an in-country industrial presence, are executing domestic strategies in multiple countries, and develop products in their strategic markets. Companies at this level, such as Caterpillar, FedEx, Toyota, and BAE Systems, build a sustained presence through local acquisitions and sourcing.

Superior capacity management or engineering skills are no longer enough to differentiate companies in today's competitive environment. Global growth demands strategic approaches and operating models tailored to the dynamics and needs of individual markets.

Building Enduring Competitive Advantage

An enduring competitive advantage in any market – domestic or global – comes not from assets, which competitors can replicate or erode, but from a clear strategic direction and differentiated core capabilities. Three capabilities in particular stand out as fundamentally important for EPS companies striving to grow in an increasingly competitive global economy: strategically managing risk, maintaining a technology and product innovation edge, and ensuring cost competitiveness.

Strategically manage risk

As companies based in North America become increasingly dependent on elaborate global supplier systems, mainly so they can reduce costs and gain local market access, they become more vulnerable to the risk of highly distributed supply chains. Often this risk is ignored or underestimated. At the same time, increased supply chain complexity hurts profitability when companies fail to understand its true cost.

The challenge of managing an extended, global supply base can be daunting. The solution, however, is not to abandon offshore operations, but better manage supplier relationships. The automotive sector, for example, has undergone an evolution over the past century from a vertically integrated industry to a network of tiered suppliers. The companies that have successfully navigated this journey are valuable models for those in other

industries now making the transition. For example, the Toyota Motor Corporation relies on its lean principles and management of supplier relationships to control costs. Goodyear Tire & Rubber Company's successful expansion into China is largely attributable to the lasting partnerships it has built with suppliers to meet manufacturing and quality standards. Through investment in local market access, Goodyear has not only expanded its presence in China, but also increased U.S. exports to China by more than 50 percent, adding thousands of new production employees in the United States. Caterpillar Inc. has also become a major global manufacturer, with more than 60 plants in 25 countries.

Maintain a competitive advantage through leading-edge innovation

Large companies that have weathered the immediate crisis still face major problems going forward because they are not innovating successfully or rapidly enough. North American companies have offshored considerable engineering capability. The technology gap between mature markets and emerging countries is closing rapidly. And the growing threat of cybersecurity lapses limits U.S. manufacturers' ability to protect the innovative technology and products they are developing.

In addition to threats from new geographies, EPS companies face challenges from other sectors. The operating models of many large players preclude them from developing new ideas and solutions as quickly as nimbler product-oriented competitors can. For example, Apple has entered the U.S. defense market with a modified version of its off-the-shelf iPod for individual soldier applications. Meanwhile, several Chinese carmakers, including Chery Automobile, China FAW Group, and Great Wall Motor, are positioning competitively priced brands in fast-growing car markets such as India after having set up operations in Latin America, Eastern Europe, Africa, and Russia.

Sustain cost competitiveness through operational excellence

Faced with dire conditions in the past year, managers took a hard look at operations and cut costs much more rapidly than they might have in a less dramatic downturn. As sharp as corporate cuts have been, many have been merely incremental. Companies have focused mostly on indirect costs, such as overhead, rather than digging deeper into the cost structure to uncover more substantial savings. Managers have also been reluctant to cut loose "monuments," or major fixed assets such as production facilities, because they have traditionally been critical to the business, even though they may now be less relevant.

To remain competitive in the coming period of slower growth, companies must approach costs in fundamentally different ways, looking beyond incremental opportunities and closely examining systemic, structural, and designed-in product costs that have much greater potential to improve cost competitiveness. This isn't easy, because these cost elements are often interrelated and require a holistic approach to cost restructuring. Automotive and industrial manufacturers that have successfully reduced their costs have developed capabilities that run deep in the production process. For example, they are designing components for high reuse without hurting product differentiation across the portfolio, and maintaining stable design processes that minimize unnecessary engineering change orders. And they are building relationships with suppliers that are no longer based solely on price negotiations, but instead based on an understanding of the suppliers' own underlying cost drivers. For these companies, improvements have been evolutionary, but have been captured in good times and bad. Those that have not moved down this path have been forced to eliminate products and brands, shut plants, and terminate distributor relationships.

Conclusion

As the world emerges from the meltdown, it is important to reflect on the lessons of this extremely difficult year. The globalization race is heating up, and U.S. firms no longer have a clear advantage even at home. Global expansion is a necessity for the sustainable growth of U.S. EPS companies. Some sectors, such as industrial and automotive, have been evolving worldwide for decades and are further along on the globalization continuum. Others, such as commercial aerospace, will follow suit as markets continue to evolve. But it is hard to tell how quickly.

What is certain is that global growth will require lower-cost business models and capabilities for the future. As the global economy emerges from the shock of the past year, business leaders must recognize the potential of foreign markets, acknowledging that the United States is no longer a high-growth economy. They must understand the implications of a changing competitive landscape, and embrace the global economy as an opportunity rather than a risk. Companies that build defensible capabilities, continue to innovate, and maintain cost-competitiveness will be the ones that not only withstand future crises, but prosper.

We hope you find these insights helpful as you consider your organization's strategy for 2010 and beyond, and we welcome the opportunity to further discuss them with you.

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