MainStream Management
Creating Value, Driving Results

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Reshoring 101: Rebuilding U.S. Manufacturing through Right Sizing and Right Shoring

The story of how the United States lost its place in manufacturing dominance and why jobs were shipped offshore is highly relevant for business executives, government leaders and anyone interested in understanding their true impact on the country and what it will take to reestablish America's prominence as a manufacturing leader. This is the first of a series of articles that examines the state of U.S. manufacturing and strategic steps businesses can take to rebuild it.

Historical Perspectives: Outsourcing and Offshoring

Fall of U.S. Manufacturing Dominance

There are some Americans, mostly young, who do not know that the U.S. was once the manufacturing capital of the world, and "Made in America" was the most prevalent label on almost every product Americans bought. The days of U.S. manufacturing dominance are gone. Most consumer goods purchased in the U.S. are now labeled "Made in China", "Made in Vietnam" or "Made in Indonesia". How you feel about that depends on your situation and point of view. If you are a consumer, you probably welcome the low, sometimes incredibly low, prices of products found in Walmart and other big box stores. As a U.S. business leader, you surely welcome the prospect of lower production costs. The Chinese government welcomes the business growth that is helping to achieve a major strategic goal – to become the next manufacturing capital of the world. And if you are a U.S. worker, displaced by the jobs exodus to foreign off-shored countries, you might be struggling to make ends meet. Regardless of the perspective, everyone feels the impact of offshoring.

Outsourcing – A Common Practice

It has long been a common practice for companies that do not have specific manufacturing expertise or capability to have other firms make some components, or the entire product, for them—a process called outsourcing. Unless a company is completely vertically integrated, (i.e., controls every part of the manufacturing process from mining the ore to wrapping the final part) it has probably outsourced some operations. The original Ford Motor Company is a good example of a vertically integrated company that literally made the steel and then fashioned it into Model T automobiles. But current Ford vehicles have many outsourced parts, which are assembled into the final product. Most modern manufacturers have an area of expertise which they apply and then outsource the remaining processes. For many years, companies outsourced work to other companies within the U.S. where an abundance of specialty shops existed. These shops not only made product components, but also made the patterns, molds and equipment needed to manufacture the components. The U.S. was teeming with skilled tradespeople, engineers and support personnel who managed the supply chain of component manufacturers. In the latter part of the 20th century, that began to change. The perfect storm was brewing that derailed America's manufacturing dominance and consequently put thousands of manufacturing companies out of business and millions of skilled workers on the street.

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Problems with Making it in America

U.S. manufacturers were being stretched in a number of different ways that hampered productivity and profitability. For example, escalating state and federal tax rates; burdensome regulations by agencies; organized labor contracts with restrictive labor practices and expensive benefits and wages; and rulings by the National Labor Relations Board tilted towards labor that penalized companies have all increased the cost businesses had to absorb. Little could be done to increase selling prices to offset increasing costs because highly competitive, cheaper products were pouring in from countries offshore. Profits of companies that were making products in the U.S. plummeted.

China's Manufacturing Dominance Strategy

Deng Xiaoping, China's Communist Party leader in the latter part of the 20th century, was a practical man compared to the idealist Mao Zedong whom Deng succeeded. Deng saw the need for China, with its 20 percent of the world's population, to be socialist on one hand yet capitalistic on the other. Deng recognized the need for China to be able to support itself, and with his policies and commitment, China began its emergence into manufacturing. Labor in China was both abundant and cheap, and the Chinese government either subsidized or incentivized state-run and private companies to manufacture products to compete with those made in the U.S. To further enhance the appeal of Chinese products, the Party refused to allow the yuan to float on the open market keeping it and Chinese products artificially cheap. The playing field was not level, but there were no good, obvious solutions for the U.S. For example, in 1998, the Huffy Bicycle Company could not compete with the flood of Huffy look-alikes coming offshore from Asia that sold at a fraction of the cost of bikes made in Celina, Ohio. The result, Huffy began to manufacture its bicycles offshore in Asia.

Offshoring – Outsourcing Outside America

Many other U.S. companies had similar experiences and the offshoring rage was on. Product names that were once stamped "Made in America" began to be made offshore. You might remember a few: Radio Flyer's little red wagons, all Mattel toys including Barbie dolls, Converse athletic shoes, Ohio Art's Etch A Sketch, General Time's Seth Thomas clocks, Levi's jeans, and even Hershey's chocolate bars and candy kisses. The list of products made offshore would not surprise anyone today, and the list is a very long one indeed.

Offshoring brings with it a mixed bag. At first, there was the good news. For the U.S. consumer, products became more affordable and the family budget was allowed to stretch – we bought more with the same dollars. For the offshoring U.S. company, manufacturing costs were lower, the impact of government agencies and organized labor was reduced, and profits were higher. But after a few years of buying foreign made products, consumers learned that cheaper prices also meant cheaper quality products that did not last as long or did not perform as advertised. It was easier and cheaper to throw away the offshored products than it was to try to repair them or make them work properly. Offshoring contributed to our becoming a "throw away" society.

Offshoring has its Consequences

The companies that sent manufacturing to foreign countries soon discovered there were frustrations and costs they never anticipated. Differences in language made it difficult to communicate product specifications and manufacturing instructions to their offshored sources. Cultural differences made it difficult to motivate the foreign companies to respond quickly to their needs. Graft, or payment under the table, was often necessary to break logjams such as finding lost parts, getting a higher priority in a production schedule, or releasing shipments. Conference calls to deal with these issues would have to be scheduled across different time zones, further frustrating the offshoring company. When issues could not be solved over the phone, visits abroad became necessary incurring more costs and tying up valuable human resources. Some companies decided to make periodic overseas visits to keep things under control or to put a full time company representative on site. The costs were beginning to expose themselves. When production or quality assurance steps were not followed, products could end up at the U.S. company requiring rework. Being compensated for the reworking of defective products was unlikely to happen.

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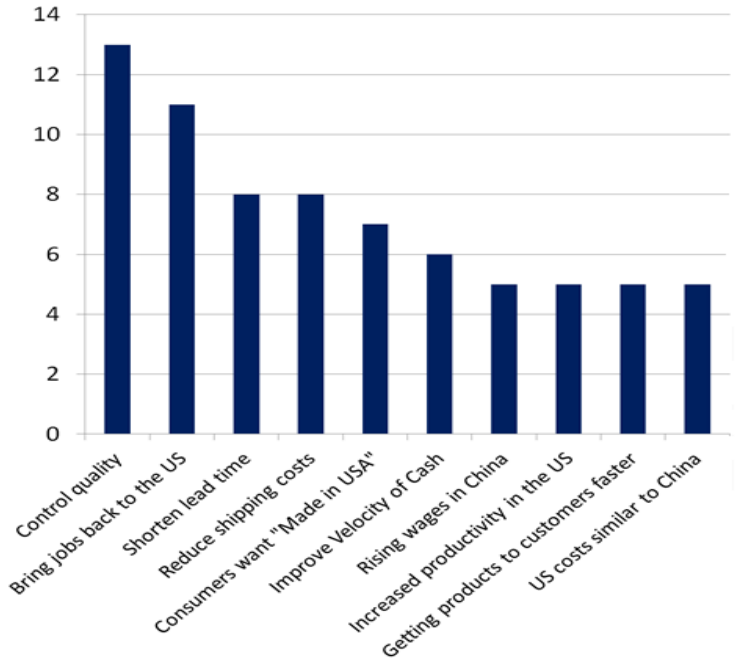
Although reshoring efforts are just beginning, the list of companies that have already reshored or are in the process of reshoring is growing. Here are a few:

- General Electric – Water heaters
- Master Lock – Locker room locks
- Wham-O – Frisbees
- Windstream Technologies – Windmills
- Tacony Corporation – Vacuum cleaners
- Element Electronics – Flat screen TVs
- Outdoor GreatRoom Company – Outdoor furniture
- NCR – ATM machines
- Coleman - Coolers
- ECI Biotech – Diagnostic medical instruments
- Jarden – First Alert safety devices
- Whirlpool – Hand mixers
- Chesapeake Bay Candle – Candles
- Michigan Ladder – Ladders

The list of offshoring problems and resulting costs continued. Purchasing offshored goods usually began with a prepayment. Order quantities were not what was needed, but rather based on what a shipping container would hold. Add a production lead-time of four weeks and a shipping time of another four weeks to the massive order quantities and the result was products that would not sell for many more weeks that required storage and inventorying, with possible obsolescence and spoilage. Cash flow slowed to a snail's pace, especially with 30 day net terms to customers. Costs escalated and profits shrunk. But there's more! Offshored countries are notorious for pirating the intellectual property U.S. companies give them to make their products. Suing the foreign source typically was ineffective due to a weak or nonexistent judicial support in the foreign country.

Offshoring has consequences for the U.S. as well. The flight of manufacturing jobs offshore has meant record unemployment, reduced gross national product, and a dwindling tax base with less than half of Americans paying federal income taxes. In some cases, whole towns have struggled because of offshoring, such as Hershey, Pennsylvania, where all Hershey chocolate was made. Locally owned 'Mom and Pop' stores have disappeared because their customer base has moved on or is standing in the unemployment line. Skilled trades have become virtually extinct because their demand has moved to foreign countries. Toolmakers, machine operators, machinists, and welders are four trades that have been especially hard hit. Youth have little or no interest in manufacturing, as all their role models (parents, uncles, aunts, neighbors) who used to work in the factories no longer do so and the demand for manufacturing jobs is almost nonexistent.

Companies' Frequency and Reasons for Reshoring



Source: MainStream Management

The True Cost of Offshoring – Total Cost of Ownership

These issues add up to the true cost of offshoring, which is known as the Total Cost of Ownership. For the consumer, the Total Cost of Ownership includes how often the product does not work properly, and must be taken back to the store, or repurchased. For the U.S. company, the Total Cost of Ownership due to offshoring includes the multitude of issues necessary to do business thousands of miles away with people of immeasurable differences in motives, language and culture. For the U.S., the Total Cost of Ownership is the loss of a way of life, economic risks, and prestige in the world.

Perhaps the best way for businesses to think about the Total Cost of Ownership or the true cost of offshoring is the speed at which their cash moves out of their accounts to pay for everything it takes to bring the product to market, sell the product, and take cash in through invoiced payments. We call this the *Velocity of Cash*. Consider the huge outlay of cash that businesses must pay up front to manufacture products in China — and in order quantities that will take months to sell and that must travel thousands of miles to reach the U.S. In the case of a "Made in China" offshoring scenario, the Velocity of Cash moves at a snail's pace. Made in America products can have "light speed" Velocity of Cash, especially when Lean techniques are applied.

Rethinking Offshore Manufacturing

Reshoring has Begun

The pace of reshoring operations has accelerated in recent months with more companies analyzing, deciding and moving selected manufacturing process back to the U.S. While the 'Made in America' desire for U.S. produced goods may have gotten the ball rolling for reshoring, the Chinese economy has now created an economic advantage for U.S. manufacturers to produce goods states-side.

There are many indicators, particularly in China, predicting the return of U.S. jobs through reshoring:

- China's economic boom has its workers demanding higher wages and a minimum wage is in the works.
- The Chinese government is relaxing its support and subsidies

to Chinese factories making foreign goods; more production is being saved for Chinese consumers.

- The Chinese government is allowing its currency to find its value in the world, which will make the yuan more expensive compared to the U.S. dollar.
- Shipping costs are escalating as the price of oil increases.

In the U.S., consumers are becoming disillusioned with the "Made in China" label. U.S. companies are beginning to understand their Total Cost of Ownership for offshoring and are taking steps to bring their work home, reshoring jobs to America and rebranding their products with "Made in America."

Companies that are not reshoring or considering reshoring, are missing multiple business opportunities:

- Competitive advantage of a Made in America label
- Direct control of production and quality
- Advantage of higher U.S. productivity and automation
- Shortened lead times
- Reduced shipping costs
- Shortened time to market
- Faster problem solving
- Accelerated Velocity of Cash

Businesses that do not recognize the liabilities of offshoring may be left at a competitive disadvantage of those acting now to reshore.

MainStream's 7-Step Right Shoring Process

MainStream is working to help companies bring jobs back to the U.S. by assisting manufacturers in both the right sizing and right shoring of their operations. The results give businesses the control they once had, the quality their customers deserve, and the financial return on which the U.S. economy depends.

An important part of the early analysis of reshoring is to understand market demands now and in the future – assessing all appropriate options. Options can range from the reshoring of all operations to the U.S. or the transition of component manufacturing to one or more other countries with final production and assembly in the U.S. The many factors of consideration include customer buying preferences and delivery needs, supply chain and strategic sourcing, and the right sizing of global operations through Lean and other technology advances.

We live in a global world and in order for businesses to meet the demands of their customers, it is important to evaluate manufacturing activities on a worldwide basis. The U.S. has a place in this world order. MainStream can help by identifying optimum site locations to increase competitiveness, customer satisfaction, cash flow and profit. Reshoring makes sense. Right shoring and right sizing makes sense in the global economy.

MainStream's 7–Step Right Shoring Process ® to profitably and successfully right size and reshore a company's operations, includes the use of a proprietary data analysis platform to produce detailed financial models and feasibility assessments.

MainStream's 7–Step Right Shoring Process ® includes the following steps:

1. Financial Modeling
2. Footprint Optimization
3. Site Selection
4. Production Planning
5. Supply Chain Selection
6. Manpower – Boots in the Office and in the Factory
7. Lean Implementation

Reshoring, like establishing world peace, is easier said than done. A well thought out plan that is based on a true understanding of the total cost of ownership is essential for project success.

About the Authors

Tim Hutzel, Managing Director and Researcher at MainStream, has more than 35 years of experience in transforming organizations into highly efficient operations through process improvement and organization development. His work engagements span the industrial, manufacturing, aviation, aerospace and defense, consumer products, and government services sectors.

Dave Lippert serves as President of Hamilton Caster & Mfg. Co., a small manufacturer located in Hamilton, Ohio. The 105-year-old family managed business has embraced its own Lean journey to preserve its slice of U.S. manufacturing, and provides material handling products to primarily U.S. based manufacturers.

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