

# **INSIDER**

INDUSTRIAL AUTOMATION & PROCESS CONTROL

## ***An Agonizing Reappraisal: Offshoring and Just-In-Time***

Somebody has to say the quiet part out loud. Offshoring, outsourcing, and fervent just-in-time inventory management have made manufacturing companies from semiconductors to automobiles “brittle.” And being brittle, these companies have great difficulty adapting to disasters and other mischances in today’s economy.

Do you see yourself? Do you see your company?

If you do, you’re not alone. For the past thirty years, at least, we have been assiduously practicing the fiscal disciplines of offshoring, outsourcing, and just-in-time inventory control because these disciplines were sold to us as ways to improve our bottom lines.

These “stupid accountant tricks” only improve our bottom lines when the weather is fair, and we know a hawk from a handsaw.

### ***Offshoring***

Offshoring, also known as “manufacturing in ‘low cost of manufacture countries,’” started because of extreme cost cutting measures that we were told were necessary to remain competitive with manufacture in Asia. As each Asian center of manufacture costs have risen to close to North American and Western European costs, manufacturing has moved to even lower cost of manufacture locations. In some of these locations, the underlying education and training have not been sufficient to produce the same quality of manufacture as North American manufacture. But they are cheaper.

What has happened with the Pandemic is that the combination of Pandemic-affected workers in the low cost of manufacture countries, with the loss of workers in the supply chain—truck drivers, sailors, dock workers and other key workers, has meant that the goods made in the low cost of manufacture countries are not only lower quality, but also becoming hard to get, and more expensive.

### ***Outsourcing***

Outsourcing, like offshoring, was intended to improve short term RONCE values by eliminating those terrible cost sinks, manufacturing plants. Instead, corporations act like factors, buying and selling products made by other corporations. This provides considerable savings in cost of goods and inventory management, until the supply chain becomes distorted or distressed. Like with a Global Pandemic, corporations have little control over solving problems with outsourced products.

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## ***Just-in-Time Inventory Control***

Inventory is a sunk cost. It sits on the shelf costing money and accruing taxes. The perfect inventory systems produce 365 or more turns a year. That's just not possible, so inventories have been reduced to the quantity necessary to build product on a daily, weekly, or other time basis. The calculation is entirely based on a static manufacturing system with a robust supply chain. If the supply chain breaks, the inventory dries up, and shortly manufacturing stops for everything from semiconductors to automobiles and airplanes. The Covid-19 Pandemic killed over 1 million persons in the United States alone and is estimated to have killed over 4-5 million people globally. You cannot take that number of people out of the work force and have work processes continue naturally.

Outsourcing, Offshoring, and Just-in-Time Inventory Control depended on a robust international economic system, unaffected by war, disease, or other natural disasters. It is probably time to re-evaluate these systems since we appear to be living in a world with potential large-scale war, global pandemics, and natural disasters such as tsunamis and volcanic eruptions on a continuing basis into the future. When will the next pandemic occur?

Cyber-attacks on offshored and outsourced industries are of two kinds. The first is an attack by criminals interested in ransoms and stealing assets. The other is an attack by a nation state interested in interrupting the victim's ability to respond militarily or economically to a physical provocation. Both types of attacks target offshored and outsourced industries because the supply chains have become brittle and easy to disrupt.

It might just be time for corporations to consider how they are organized and structured. Can manufacturing corporations continue to operate as if the past two years was an aberration?



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