

THE NEW ECONOMY

TECHNOLOGY ELIMINATES WORK & WORKERS

An excerpt from Jim Pinto's recent newsletter

The stock market is up again. The Fed says the "recession" is over. There was big news that unemployment is inching back below 10%.

Everyone wants to return to the "good old days" of full employment. No one wants to take a pay cut. But here's the difficult truth. The current recession is not just a temporary thing - it is a radical shift in the structure of our economic way of life.

Automation technology continues to reduce human work, physical and mental, in the production of goods and services.

Automation started in manufacturing, but continues to expanding into most other arenas. Telephone operators have been replaced by automatic switchboards; secretaries by answering machines; clerks by computers. Medical records are kept with much greater speed and accuracy by automated systems. ATMs have almost eliminated the need to visit banks during working hours. Today, you don't even need to put your check in an envelope for ATM deposit - you can simply take a picture with your smart-phone and send it to the bank.

Automation is eliminating manufacturing jobs everywhere in the world. In the first decade of this new millennium, about 3 million factory jobs were eliminated, about 30% of the workforce, supposedly to compete with cheap foreign labor. Here's the point: Those jobs are NOT coming back, and it has nothing to do with the cost of labor.

Automation technology continues to eliminate the need for workers. Productivity increased about 9% in 2010, the biggest gain in 20 years. Investments in automation technology (beyond just manufacturing) increased 15%, as most companies pushed to do more with less.

Well-managed companies don't want to hire people and then lay them off again. They keep looking for high-tech ways to do more with less. During the recession, productivity gains allowed many companies to maintain, or even increase profit margins, as revenues decreased. Companies who laid off thousands of workers have learned to use existing technology more effectively, to have "lean" operations. Production lines produced faster, with fewer people.

Here are some facts: Manufacturing profits rose above \$122 billion during the last quarter of 2010, the highest for any quarter since 2006, with 2.4 million fewer employees. Many companies don't really want to hire again, even as profits increase. Since the start of the muted recovery, manufacturing jobs have increased, but only by about 5% of the 3 million jobs lost since the decline. Factories won't get back to pre-recession employment levels for a decade, if ever.

Chronic unemployment is facing not only the US, but Europe as well. Off-shore-manufacturing is NOT to blame - even China is reducing their labor workforce. Industrial work is increasingly done by machines, which produce cheaper, faster and better.

The prospect of employment will continue to diminish for a large percentage of the population. Current thinking is simply looking in the rear-view mirror - let's get back to the good old days of full employment. We are not really considering solutions for the new era, where there is no more "work" work.

Where Lean Thoughts can become Reality

"Unless you try to do something beyond what you have already mastered, you will never grow."

Ronald. E. Osborn

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Lean Thoughts

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WHAT DO LEAN AND SIX SIGMA HAVE IN COMMON?

For example, in the six sigma arena, a problem is pursued as a discrete effort by a black or yellow belt (based on complexity). Root causes are formally determined, metrics developed, process capability assessed, and various solutions tested. When the appropriate solution is found, it is installed.

In the lean school of study, the problem is typically an identified waste that is noticed on routine measurements that are conducted in each work group on a periodic basis. Since all waste is a root cause of some loss, it is attacked automatically. By employing workplace management tools and just-in-time techniques, the waste is reduced. Lean has the benefit of a number of standardized techniques that can be applied within work groups. No expert is needed.

Which approach is best? It depends on what the specific problem is. In fact, both lean and six sigma are needed because they do different things. One cant afford to let big, dangerous process problems and quality issues go unattended until after the installation of lean systems. Conversely, one cannot afford to wait to implement lean techniques if the rest of the market segment is already moving in that direction. Six sigma cannot produce the required results in inventory reduction and cycle time on a sufficiently broad basis fast enough.

Issue, Tool, Approach	Lean	Six Sigma
Engages work groups as teams	YES	-
Defines key metrics for every work group	YES	-
Provides daily metrics feedback to all groups	YES	-
Forces participation of supervisors/leads each day	YES	-
Focuses on significant critical issues	YES**	YES
Employs structured problem solving approaches	YES	YES
Focuses on hundreds of micro-processes each day	YES	-
Establishes standard work (using TPS work sheets)	YES	-
Attacks movement, waiting and walking waste	YES	-
Attacks work-in-process (WIP) inventory	YES	-
Attacks raw and finished goods inventory	YES	-
Attacks work imbalances (leveling)	YES	-
Focuses on cycle time reductions	YES	-
Focuses on specific, individual defects	YES	-
Drives adjacent work groups/shifts to communicate	YES	-
Attacks changeover times	YES	-
Develops error proofing opportunities	YES	-
Uses kaizen blitzes	YES	-
Focuses on preventive maintenance issues	YES	-
Focuses on good housekeeping	YES	-
Focuses on developing a visual workplace	YES	-
Focuses on workplace organization issues (e.g., layout)	YES	-
Focuses on improvement planning in each work group	YES	-
Uses As Is process flow diagramming	YES	YES
Uses To Be process flow design	YES	YES
Employs Kaizen Action Sheet methodology	YES	-
Employs appropriate KCG 20 Keys SM	YES	-
Requires metrics development in each work group	YES	-
Employs benchmarking	YES*	YES
Standardizes and institutionalizes changes	YES	YES
Focuses on key safety issues	YES	-
Pursues large scale reengineering type innovations	YES**	YES
Requires concrete behavior changes in employees	YES	-
Requires concrete supervisory behavior changes	YES	-
Calculates process capability	-	YES
Uses statistical process control charts	-	YES
Uses design of experiments	-	YES
Calculates defects-per-million-opportunities (DPMO)	-	YES

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