

## Workforce Productivity in Today's Service-Based Economy

Recently, U.S. President Barack Obama expressed his determination to “unlock the productivity” of American workers to make the country more competitive in today's technology-driven economy. In his radio address he specifically emphasized, “We just have to make sure we're doing everything we can to unlock the productivity of American workers, unleash the ingenuity of American businesses, and harness the dynamism of America's economy.”

We agree.

President Obama refers to today's 'technology-driven economy'. His reference points to the shift that has occurred from a manufacturing-based economy to one that is service-led, digitally-attuned, and knowledge-based. The hard facts are that as a percentage of the U.S. economy the manufacturing base plunged through the 9 percent barrier in 2010. This is a 68 percent decline from the post World War II peak of 28.3 percent in 1953. In the last decade more than 45,000 factories were closed and more than 8,000,000 manufacturing jobs were shed. In spite of these steep losses, the US economy still leads the world in manufacturing, supplying some \$1.7 trillion of high-quality goods, currently dwarfing China by some 40 percent, according to the latest United Nations figures. This only underscores the tremendous improvements in manufacturing productivity achieved in the 20th century because of American ingenuity and innovative technologies.

But what about the fact that the service sector now accounts for about 70 percent of the US economy? With the service sector now the primary driver of the Western economy, the challenge is to wring productivity gains out of a market segment still dominated by a late 20<sup>th</sup> century management philosophy where decisions are still made based on anecdotes, gut feelings and following whatever the latest management trends of the moment happen to be. Somehow, the thinking that made the West so successful on the factory floor has not been easily or readily transferred to the contact center.

What is now clear is that applying the lessons of productivity gains in the manufacturing world of the last century to the 21<sup>st</sup> century service-oriented economy is more difficult than ever imagined for the simple reason that work has been 'de-materialized'. The nature of work itself, as well as the nature of the environment in which it is performed, has changed. For the lessons of the past to be applied to the present, we first have to be able to define what constitutes 'work' in the service sector, in order to break it into its constituent components, to better observe them, measure them, and then apply the various metrics that will allow us to wring out the needed productivity gains.

Over one hundred years ago, Frederick Taylor, the father of Scientific Management, first approached the idea of manufacturing productivity by observing workmen loading ore, breaking down the human labor (or work) into measureable components. Taylor's thesis was that the systematic analysis of human labor was the key to improving productivity. For Taylor, the first step in increasing productivity in any environment was to collect the data relevant to the tasks at hand. This was a key insight that ultimately led to the concept of productivity. Driving productivity was, and still is, the most efficient way to produce the largest number of goods at the lowest possible price.

In the service economy the basic rules of productivity have not changed. Specifically, we continue to measure productivity as the relationship between output produced/input resources consumed. However, the measurement of this simple relationship, which works best in closed-loop manufacturing processes, proves to be quite troublesome when it comes to services. Though progress continues to be

made in the analysis of work in terms of business process re-engineering, total quality management, outsourcing, and the like, improving productivity and performance remains an intractable problem for most, particularly for service organizations, due to the lack of directly observable events.

In defining his scientific management principles, Fredrick Taylor ascribed to the principle that what you can't define you can't measure, and what you can't measure, you can't improve. Service-based companies' greatest expenditure is headcount, and arguably the area of least knowledge is in understanding labor-intensive activities at a granular level and measuring the associated productivity. Operational executives face this challenge daily as the ability to measure productivity in terms of financial and quality improvements is at best, guesswork. Further exacerbating the issue is the unparalleled growth of knowledge work and information coupled with uncertain economic conditions.

So what is the answer? How do you increase productivity and quality in this dynamic period of service sector growth?

Just as Taylor was able to visually observe workers performing their tasks, think about the ability to *instrument* visually exactly *what* work is being done. Think of the ability to see *how* work is actually being done in this dematerialized, digital world. Think about the ability to quantitatively measure and improve workforce productivity.

There are a number of solutions in the marketplace that help from a workforce management perspective. They offer precision forecasting, efficient scheduling and performance analytics from a worker perspective. What is required, however, is a process and workforce intelligence solution that provides a new level of understanding....that is the ability to understand exactly *how* work is being done.

Look at process and workforce intelligence as a discipline combining the use of automated process discovery with analytics and continuous improvement. The "*intelligence*" provides a new level of process understanding and root cause analysis.

The analytics produced by process and workforce intelligence are used to understand everything from detailed individual work processes, all the way to understanding complex multi-organizational processes. For example, one may focus on a single organizational process, such as a call center's first contact resolution improvement, by understanding in detail the activities and outcomes of customer interactions across the organization's multiple channels and contact points. Or, the process in question might center on a multi-organizational issue, such as provisioning new telecommunication systems, from the upfront orders through circuit design, testing and cut-over. Or a health insurance provider may require a complete view of the end-to-end processing of claims (from submission through payment) to quickly pinpoint and resolve rework and process bottlenecks.

This intelligence capability is required to capture the "as-is" process execution view in the areas that deal with knowledge and information work and provides something that here-to-for has been difficult to obtain...the empirical data to be able to make informed, not subjective, decisions. This "evidence-based decision making" enables organizations to gather source data about the work that actually occurs and make improvements based on facts rather than on best-guesses.

Specific examples where process and workforce intelligence can provide benefit:

- Consider Healthcare Insurance providers where each percentage point improvement in auto-adjudication rates equates to between \$500,000 and \$2,500,000 in annual cost savings.

- Consider contact centers with high call volumes where a 1 percent improvement in first contact resolution can mean \$10MM in annual cost savings, and \$10MM in annual revenue improvement.
- Consider Government agencies that face enormous challenges in attempting to prevent improper payments caused by fraud, waste and abuse, which will surpass \$110 Billion this year.

The U.S. relies more than ever on productivity gains to drive GDP growth. Unfortunately, most citizens see productivity as a job-killer. But as described in the McKinsey Global Institute report, *“Why US Productivity Can Grow Without Killing Jobs”* (February 2011), the perceived fait accompli is not necessarily so: “We are optimistic about productivity because it isn’t only about efficiency; it is no less about expanding output through innovations that improve the performance, quality, or value of goods and services. What’s more, even productivity solely from efficiency gains can, in aggregate, lead to higher employment if the cost savings are put back to work elsewhere in the economy. Companies can pass on those savings on to their customers in the form of lower prices, leaving households and businesses with more money to spend elsewhere. They can also reinvest savings from more efficient operations in new job-creating activities.”

In transitioning to this service and knowledge-based economy, identifying, tracking and measuring the profitability of a unit of work is of critical importance. More importantly, it should be a business and government imperative required to drive growth and competitiveness in this 21<sup>st</sup> century economy. Innovations from companies, such as OpenConnect’s Process and Workforce Intelligence analytics, hold tremendous potential in delivering visibility and insight to improve workforce productivity and operational efficiency.

American ingenuity and innovation has driven great economic prosperity. The key to achieving growth in today’s service sector economy is productivity – just as it was over the last century in manufacturing. By increasing workforce productivity we can achieve and exceed current GDP growth rates. We agree with President Obama that in order to make our country more competitive, we need to do everything we can to improve the productivity of American workers. In-turn, this would increase the efficiency, value, and quality of all goods and services the U.S. produces.

U.S. policy leaders should step forward and embrace the concept of workforce productivity in today’s technology-driven economy, working to ensure our transformation to a services-based economy will not only match but exceed the productivity gains achieved in manufacturing over the last century.

### **Policy Implications**

Cooperation between the public and private sector has paid great dividends in the past, particularly in the area of Information Technology, fueling the rise of the knowledge worker and productivity. The role of the U.S. Defense Advanced Research Projects Agency (DARPA) in the development of what we know today as the Internet is widely understood. But that’s only one example. The federal government and the private sector are today collaborating on advancements in cloud computing and information security. If the U.S. is to remain at the forefront of an increasingly technology-driven world economy, policy makers must continue to focus on such targeted investments, even in the face of a serious budget deficit.

Today, the federal government invests less than one percent of the nation’s gross domestic product (GDP) in research and development (R&D), down from 1.3 percent in 1977, according to the American Association for the Advancement of Science. Speaking before the National Academy of Sciences in

2009, President Obama called for a combined public-private sector investment in R&D to equal more than three percent of the nation's gross domestic product (GDP). Achieving such "likely would require a substantial increase in public and private investment," according to a March 2011 report from the Congressional Research Service. Policy makers need to provide incentives for private companies to co-invest with public agencies in an effort to bring innovation to specific problems that can then be transferred back into the private sector. The history of success demonstrated with the U.S. space program is a guide to the type of economic success that can be generated.

A policy prescription for maintaining U.S. leadership as it relates to process and workforce intelligence issues has the potential to drive significant productivity gains. A policy that uses a mixture of incentive-based innovations and federal mandates (e.g., for a specific agency process, increase service output and quality by XXX% without raising labor cost) should be a required action item for each agency. This would be warmly received in the current expense cutting environment.

#### **About The Author**

Edward M.L. Peters is the Chief Executive Officer of OpenConnect Systems, a published author, a media commentator and a frequent speaker at industry events. In his role as CEO, Mr. Peters sets the strategic direction of OpenConnect, a provider of Process Intelligence and Workforce Analytics software designed to measure the true costs of business processes as well as improve productivity and quality.