# Creating Competitive Advantage Through Knowledge Worker Productivity Gains

> "*Knowledge worker productivity is...(the) only real competitive advantage in a global economy*" - Peter F. Drucker

A profound transition is unfolding, one that promises to change the dynamics of business permanently. Knowledge workers, those individuals whose production relies on information and ideas, now make up 40 percent of the American workforce. Collectively, they comprise a multi-trillion dollar segment of the world economy.



Source: Gartner Group

It is a staggering figure by any stretch. As a result, knowledge worker productivity tools are garnering an inordinate amount of attention from the managerial ranks and the investment community. According to Gartner Group, 50 percent of workplace investments, representing billions of dollars, will focus on the individual productivity of the knowledge worker through 2005.

The reasons are simple: The modern, knowledge-intensive company is looking to increase revenues, improve workplace efficiency, and reduce expenditures through tools that accelerate an employee's abilities and speed.

According to Forrester Research, American workers spend $404 billion annually, or 11% of all U.S. wages, looking for the information they need to do their jobs. Giving employees the right tools to stay afloat in a data- and knowledge-driven workplace is imperative across the board.

Those suppliers that can meet the needs of this emerging market will reap enormous awards. Individual companies catering to today's knowledge workers are already garnering as much as $10 billion annually in revenues from the segment.

According to Management Challenges for the 21st Century, "The most valuable assets of a 20th-century company were its production equipment. The most valuable asset of a 21st-century institution, whether business or nonbusiness, will be its knowledge workers and their productivity."

## Companies on the Cusp

From shareholders to managers to employees, the implications are huge. Companies that embrace the fundamentals of knowledge worker productivity are set to thrive in the coming decades. Conversely, those firms which remain stationary will not only fall behind, they could face the specter of outright collapse when stacked  against better-equipped industry competitors.

> "*...in some industry sectors, (knowledge worker productivity) investments have started to become mainstream*"
> A. Kyte, "Measure and Improve Knowledge Worker Productivity", Garter Inc., 2002

Fortune 1000 companies which improve knowledge worker productivity by even a single-digit percentage can, over the course of a decade, add billions to their bottom line through productivity gains.

According to META Group, as reported by Computerworld, the data inside a corporation doubles every six to eight months -- a staggering number for anyone trying to manage information flows.

As a result, knowledge workers often find themselves scrambling to organize their working lives. All the while, the flow of knowledge continues unabated. According to the Delphi Group, today's knowledge worker costing a company $120,000 wastes about 30% of his/her working day "searching" for information, and that doesn't take into account the processing and redistribution of that information. That cost adds up to $36,000 per employee. A company laying claim to 1,000 knowledge workers, then, could be looking at a total cost of $36 million annually. To shave even a fraction off this number would result in millions of dollars in savings.

In the case of larger enterprises, minor improvements in knowledge worker productivity lead to equally impressive boosts to the bottom line -- often equating to in excess of tens of millions annually.

It has been said that knowledge ultimately separates a company from its competitors. According to Gartner Group as reported by Copernus WebSpace, "Knowledge assets in the virtual workplace are concentrated in the skills, experience, creative talents of the workforce and the collective learning of the enterprise that is embedded in knowledge repositories... a major implication of knowledge worker dominance is that power will shift to the knowledge-worker."

The manager's challenge, therefore, is two-pronged: To harness the knowledge worker's skills and ideas as effectively as possible, while capturing worker knowledge for the company at large.

## Sudden Impact: The Emergence of the Knowledge Worker

Knowledge workers have gradually taken over the labor arena in the last ten years. "This is, by far, the most rapidly growing segment of white-collar employment," states Morgan Stanley economist Stephen Roach. "Over the (past) seven years...knowledge worker employment growth has averaged 3.5% per annum, sufficient to have accounted for fully 73% of total white-collar employment growth over this period."

The transition from manufacturing and natural resources to brainpower as a key competitive resource went
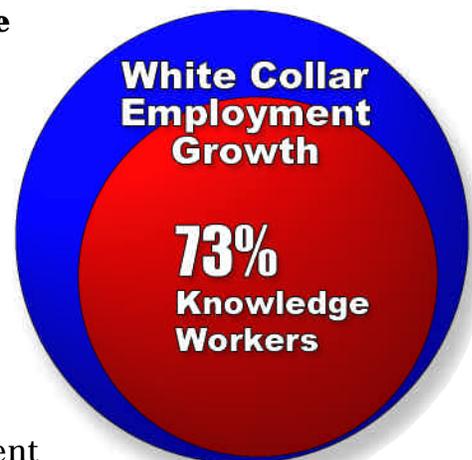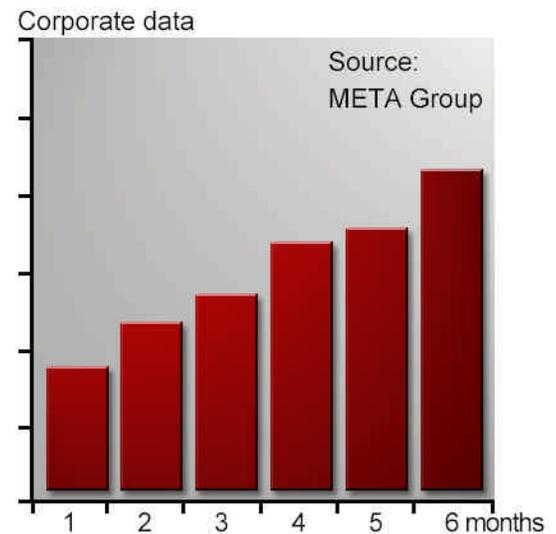
mostly unnoticed in recent decades -- until the phenomenon exploded in the latter half of the 1990s. The information technology professionals -- including the engineers, computer programmers and project managers -- that comprised the engine of the knowledge sector became the drivers of modern industry.

Today's information technology employees aren't alone in the knowledge worker category. They are joined by scientists, engineers, academics, managers, lawyers, journalists, accountants, marketers and administrators; in essence, any occupation where the acquisition, processing and utilization of knowledge becomes a primary task.

Gartner Group estimates that knowledge work now characterizes the majority of jobs across multiple industries, nationwide.

"Virtually nonexistent only 100 years ago, knowledge workers now make up the largest slice, 40 percent, of the American workforce", says business management guru Peter Drucker. "Knowledge worker productivity is the biggest of the 21st century management challenges...(it is the) only real competitive advantage in a global economy."

Drucker also states "The productivity of knowledge has already become the key to productivity, competitive strength, and economic achievement. Knowledge has already become the primary industry."

That reality has given rise to a thriving business of tools and products devoted to the knowledge worker.

### Courting the Masses: The Microsoft Factor
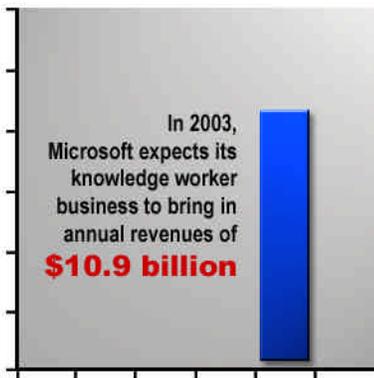
In December of 2000, Microsoft Chief Executive Officer Steve Ballmer first suggested that his employees should concentrate on seven core businesses: one of which was the "knowledge worker" space, comprised of software titles such as Office, Visio and Project. Today, that core business earns more revenue than any other for Microsoft. In 2003, Microsoft expects its knowledge worker business to bring in annual revenues of $10.9 billion.

The Microsoft Office Suite, a knowledge worker productivity software giant, has become the main thrust for Microsoft Vice President Jeff Raikes' division. According to Raikes, "At a recent summit with CEOs, I did a poll to find out which issue they thought would have the greatest impact on the success of their business over the next five years... 46 percent of the CEOs said that knowledge worker productivity would have the greatest impact."

Like-minded companies are following Microsoft's lead, looking to satisfy the critical demand of team leaders and managers bent on making significant improvements within their firms.

## The Surging Demand for Knowledge Worker Productivity Tools

There is a growing, necessary demand among knowledge workers for tools that enhance speed, flexibility and interactivity. They are looking for workplace situations -- supported by software and hardware tools -- that allow them to manage, organize and synchronize their day-to-day tasks, peer interactions, project goals and short-term challenges. Ultimately, they also need the ability to capture and share knowledge and data in an easy-to-use environment.

*"...by the end of 2007, more than 20 percent of all ICT investment will be targeted specifically at improving the productivity of knowledge workers..."*
A. Kyte, "Measure and Improve Knowledge Worker Productivity", Garter Inc., 2002

"What knowledge workers need is not just a way of accessing data, but of filtering data so the information they receive is exactly the information they require, when they need it," argues Jonathon D. Levy, Vice President of Harvard Business Online.

How does all of this contribute to the bottom line? By significantly reducing the production cycle timeline, from conception to delivery; by streamlining operations and allowing knowledge workers to focus on key strengths and talents; and allowing workers the ability to synchronize their data, ideas, communications and schedules within and between hardware platforms.

"Gold Collar" author Kelley supports this influx of tools. "Traditional management practices built a powerful industrial economy, but the evolution of management practices has not kept pace with the new challenges of harnessing brainpower."

In other words, it is not a case of the ability of technology having outpaced the ability of the knowledge worker. Research shows that the opposite may in fact be true.

According to Stan Davis and Christopher Meyer, authors of "Blur: The Speed of Change in the Connected Economy", these professionals are awaiting tools that will effectively allow them to interact with technology to effectively manage information flows.

Leading companies have reaped financial rewards from downsizing, and by improving general labor efficiency. However, that is anything but the case for the knowledge worker pool, argues Morgan Stanley economist Roach.

"The same Information Age has not fostered similar efficiencies in knowledge-worker employment; this largely reflects the understandable difficulties of automating the cerebral functions of these workers."
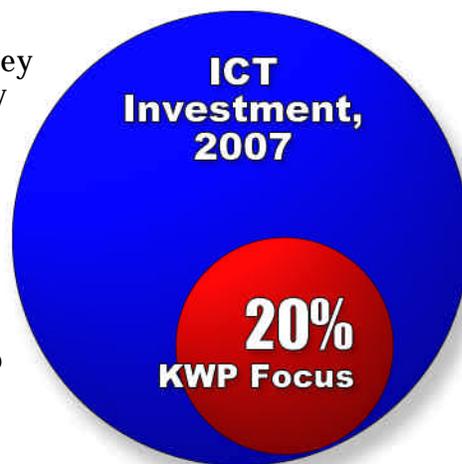
To satisfy this pent-up need, some software companies are focusing exclusively on this critical market niche. Inevitably, many will find their software offerings in ever-increased demand.

Many industries are already onside with the trend, capitalizing on ever-larger sums of capital devoted to the productivity cause. "In the past, the purpose of IT investment may have been to improve administrative efficiency," argues Andy Kyte, research analyst with Gartner Group. "In the future, it will increasingly be to improve knowledge worker productivity."

Many of today's leading companies, in industries ranging from aerospace to education to technology, have deployed knowledge management software and collaboration software -- both of which are subsections of knowledge worker productivity tools -- across their workforces.

The end result -- enhanced workplace efficiency and superior product quality -- is the goal for every manager. "Fewer and fewer jobs are concerned with producing goods, and more and more are concerned with producing information," states author Bruce Christie in Human Factors of Information Technology in the Office. "The quality of these products is dependent on, among other things, sufficient time for thinking, adequate access to appropriate information, and adequate production facilities."

## Productivity Software Equals Survival in the Knowledge Age

According to a Gartner Group symposium on information technology held in November of 2002, the competitive pressures of a globalized world are making productivity tools the lifeblood of any organization that wants to stay one step ahead of its industry rivals. The high-wage economies of North America and Europe, which now find themselves immersed in competition with the emerging markets of China and India, will only win this "survival of the fittest" with tools that significantly boost knowledge worker productivity.

*"Enterprises...gain the highest return on workplace initiatives that focus on individual knowledge worker productivity as well as enterprise and team collaboration and innovation"*
R. Casonato and K. Harris, "The Knowledge Worker Investment Paradox", Gartner Inc., 2002

Otherwise, the symposium concluded, the investment capital that sustains these firms will go elsewhere -- to the organizations that can best deliver growth through effectively-deployed productivity strategies.

Companies who don't focus on knowledge worker productivity improvement will find themselves lagging behind their competitors first in terms of profitability, and shortly thereafter in terms of access to human and investment capital.

Meanwhile, firms are looking for increasingly expedient production cycles as the shelf lives for a wide array of products becomes shorter. As time to market becomes an increasingly important component of business success, organizations have no choice but to look for ways to simplify and clarify the working day of today's typical knowledge worker.

Work processes leading to the production stage are also a crucial element of knowledge worker productivity. "Intellectual capability must be deployed to take an idea and turn it into reality," says Gartner Group's Andy Kyte.

Eileen Appelbaum argues in "The New American Workplace" that contrary to popular belief, high-performance firms in the United States can compete successfully while providing their workers with increased wages and job satisfaction. One of the catalysts for this pleasant morphing of ideologies is technology tools, such as software applications. "The shift in technology has made possible reductions in time to market by accelerating various stages of the production process, from product design and process engineering to throughput of the final product. The new technologies... can be used to transform organizations and to restructure work in fundamental ways."

## Knowledge Worker Productivity: The Heart of the Transition

The power of knowledge worker productivity software lies in its ability to streamline work processes to improve ultimate output. Whether the software tools are synchronizing data across multiple platforms, expediting communications between employees, or creating an efficient environment for content management, project management, brainstorming, and planning, the goal remains the same: To allow each knowledge worker to do what he/she does best, which is typically not the administrative tasks which companies cite as being the number one culprit of time consumption.

## Critical Tools for Enhancing Knowledge Worker Productivity
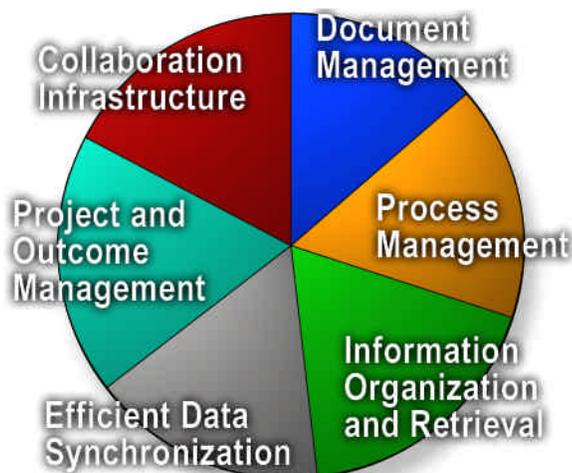


Knowledge workers very clearly lie at the heart of the profound industrial transition which businesses are facing today. It is the tools they are given to work with, however, that will ultimately determine how well their talents and abilities can be parlayed into superior business results.

Software makers -- immersed in a billion-dollar marketplace serving a bigger picture that is worth trillions -- have set the stage for one of the most radical shifts in the workplace yet.