Workplace Visions®

Exploring the Future of Work

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Promoting Productivity

- Why productivity is more important than ever
- The growing importance of intangible assets
- Promoting future productivity growth through HR practices

HR: Leading People, Leading Organizations

The role of human resources in promoting productivity is growing and could evolve into one of the most significant contributions HR professionals make to their organizations in the years to come. The main reason for this is the increasing weight given to what is known as intangible assets—or the assets that help make up the perceived value of the organization that cannot be directly attributed to physical, tangible assets. In a knowledge-based economy, these intangible assets are inevitably the result of the knowledge and skills of both the workforce and the organizational leadership.

This puts the HR function at the center of the competitive drive to create value through intangible assets. Global competition has made increasing productivity the most critical factor in determining business success in industrialized countries, and the factors that determine productivity are now much more related to human capital than any other business investment. As a result, promoting productivity is now of central importance to the success of the human resource function.

Why productivity is more important than ever

No business wants to invest employee time and effort into ventures that lead nowhere and do not eventually create goods and services that add value in some way. This has always been the case. So why is productivity more important than ever before? Largely, because global competition has in many ways upset the balance of factors that determine how productive a worker, company and nation are able to be. Productivity can be defined as the relationship between the input of resources that result in the output of goods and services. Though this basic principle can act as a starting point, there are a number of different ways of measuring productivity, and calculations of productivity are frequently complex. At the national level, productivity is usually measured by comparing gross domestic product (GDP) to labor and capital input—to put it simply, the key question is this: what is the ratio of money and work that get invested to the resulting goods, services and profit? Productivity is also sometimes measured by comparing output per hour of work, though this does not take into account the role of capital investments such as improved technology.

International comparisons of productivity, while useful, may not give the whole picture of productivity on a country-by-country basis because productivity seems to vary greatly by sector. An international study from the Institute for Employment Studies and the Science Policy Research Unit calculated the total factor productivity growth—a productivity measure that takes into account both hours worked and capital input—of 23 sectors across 16 industrialized nations. The aim was to see if international comparisons of productivity could be determined at the sector level. The study found that productivity comparisons varied greatly depending on the sector. For example, a country that ranked very high in the productivity rates of its financial sector may have had fairly low productivity rates in the agricultural or transportation sectors. In a global business environment, the distinction between generalized and sector-specific national productivity rates is important. The decision to offshore is often made only by taking factors such as labor costs into consideration, yet in some cases it may be more cost-effective to locate operations in a country where wages are higher but the business-specific sector in question is much more productive than in a country where wages are lower.

Globalization and productivity

Global competition influences both sides of the productivity equation. Many countries now entering the market are able to make a much smaller investment in labor and associated labor costs than the industrialized countries of North America and Europe because of local labor market conditions and living costs. So while regional labor market conditions allow employees in these countries to work for what would be considered low wages in other countries, the goods and services they are producing are being sold in a global market. For a smaller initial input, many emerging

Figure 1 | World Economic Forum's Competitiveness Country Rankings (2005-2006)

1. Finland	7. Iceland	13. United Kingdom
2. United States	8. Switzerland	14. Canada
3. Sweden	9. Norway	15. Germany
4. Denmark	10. Australia	16. New Zealand
5. Taiwan	11. Netherlands	
6. Singapore	12. Japan	

Source: Global Competitiveness Report, World Economic Forum

economies are able to produce goods and services that are of equal value to those produced in countries where the initial investment was much higher. Because emerging economies can employ more workers for less money, the need to increase output with fewer workers has become more important for industrialized economies.

For this reason, global competition puts the spotlight on labor costs and on those who manage them. The pressure is to find ways to produce output of higher value in order to justify the higher initial investment. High productivity does not necessarily mean low labor costs—many of the most competitive countries in the world actually have relatively high labor costs (see Figure 1)—but it does mean that the labor input must lead to a high output in the value of goods and services produced. Essentially, the value of the goods and services produced in countries with higher labor costs must be able to override the advantage of lower labor costs in emerging economies, and this has become an ongoing challenge.

This challenge has even had an impact on the long-standing consensus among economists and trade theorists that, on balance, globalization is good for workers in industrialized countries because the jobs lost are replaced by higher-skilled and higher-wage jobs. Common views of trade patterns held that countries specialized in different areas, with low-wage countries specializing in low-skilled work and high-wage countries specializing in high-skilled work. The rise of a highly skilled workforce in countries where wages are low, along with information and communication technologies that help connect these knowledge workers into the global economy, has challenged this notion of national specialization and comparative advantage. This debate is likely to continue among economists and will draw attention to those factors that increase labor costs, such as health care and retirement benefit costs, and those that increase productivity, such as a highly skilled workforce.

The impact of health care costs on labor costs overall is perhaps the best example of the first type of factor. The high cost of health care in the United States makes productivity exceptionally important to U.S. employers. The health care costs employers pay in the United States are extremely high in comparison with even the wealthiest other nations (see Figure 2). And because the United States has an employer-based health care system, U.S. employers see a direct link between the number of individuals whose health care they must cover and their overall labor costs in a way that employers in other countries may not.

Employers generally react to this in two ways. The most obvious is to look for ways to reduce health care costs through various changes to plans or changes to the way health care costs are distributed, who is eligible, how much employees must contribute and, in some cases, whether or not health care coverage is offered at all.

But the second approach—which is perhaps far more significant to the

Figure 2 | Total Expenditure on Health (2003)

COUNTRY	PERCENTAGE OF GROSS DOMESTIC PRODUCT
United States	15.0
Switzerland*	11.5
Germany	11.1
Iceland*	10.5
Norway*	10.3
France*	10.1
Greece	9.9
Canada*	9.9
Netherlands	9.8
Belgium	9.6

COUNTRY	PERCENTAGE OF GROSS DOMESTIC PRODUCT
Portugal	9.6
Sweden	9.4
Australia	9.3
Denmark	9.0
Italy	8.4
Hungary*	8.4
New Zealand	8.1
Japan*	7.9
Spain	7.7
United Kingdom	7.7

COUNTRY	PERCENTAGE OF GROSS DOMESTIC PRODUCT
Austria	7.5
Czech Republic	7.5
Finland	7.4
Ireland	7.4
Turkey*	7.4
Luxembourg	6.9
Poland	6.5
Mexico	6.2
Slovak Republic	5.9
Korea	5.6

** indicates that the data are an estimate.*

Source: Adapted from OECD Health Data 2005, October 2005

U.S. economy—is to try to reduce the number of individuals covered by health care programs by reducing the number of employees overall. To do this, employers must raise the level of productivity of employees so that fewer workers are needed to produce a greater number of goods and services. In fact, SHRM research on the ways employers are dealing with the rising cost of health care found that increasing expectations of employee productivity was the number one adjustment that employers were making in response to the rising cost of health care (see Figure 3).

As health care and other benefit costs continue to climb, there may be more pressure on employers to keep the numbers of employees low while at the same time raising expectations of employee productivity.

Growth policy

How organizations and nations are best able to improve productivity is a matter of some debate. Economists are not always completely sure why some countries' productivity levels outpace those of comparable nations. A good example of this uncertainty is the so-called U.S. "productivity miracle," which has been widely debated among economists over the past decade. When U.S. productivity growth accelerated significantly in the mid-1990s, economists and market analysts had different explanations for why this occurred. Perhaps the most accepted view was that a major investment in information technology earlier in the decade had a big impact on the productivity of U.S. companies.

Recently, however, some economists have questioned this assumption for several reasons. First, the most recent estimates of U.S. productivity in the mid-1990s have been revised down somewhat, and second, some of the sectors with the highest productivity growth were not necessarily those making the largest investments in IT.

Working hours and the way productivity is measured may be important factors in this debate. When measuring output per worker, the U.S. productivity rate appears to be much higher than when measuring output per hour because U.S. workers work longer hours than employees in many other industrialized countries (see Figure 4). However, calculating GDP by hours worked can be a useful measurement when trying to determine efficiency and may become a more important calculation in the future because the number of hours a single worker can work is not infinite. So while many European countries are now considering increasing working hours as a way to boost productivity and prevent multinationals from moving to other countries, there may be less room for U.S. employers to increase working hours per worker in order to raise productivity because working hours are already relatively high.

Recently some economists have also focused on the relative importance of innovation, depending on the stage of growth the national economy currently occupies. They theorize that the newest, most innovative technologies and workers with the highest levels of education are more important to a country at the leading edge of economic advancement than to a country at a lower stage of economic development. According to this theory, "the closer a country is to the technological frontier, the more growth depends on having a highly educated workforce. Further back from the frontier, education still matters, but university degrees matter relatively less and good primary and secondary education count for relatively more. Evidence from different countries and American states appears to bear this out" (*The Economist*, October 29, 2005). If this theory is right, education policy—especially access to higher education—may be one of the most critical national policy issues that will determine growth and productivity in the coming decades.

The growing importance of intangible assets

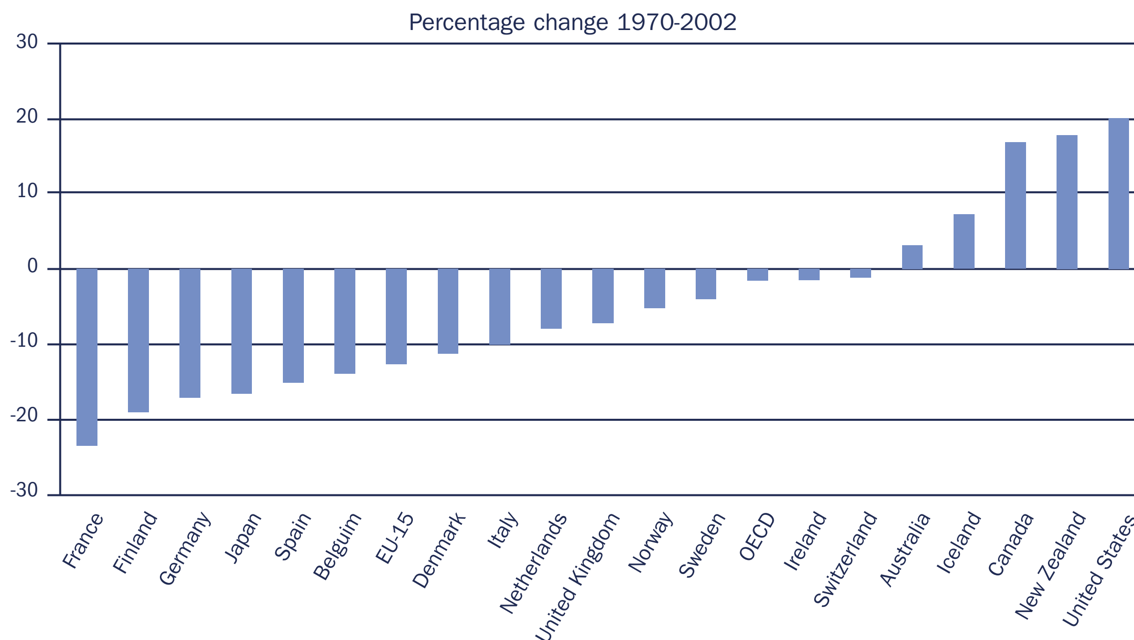
While the importance of productivity has never been greater, HR's role in promoting productivity is only now beginning to be understood. The growing importance of intangible assets in determining the value of a business is

Figure 3 | Adjustments to Cover the Cost of Employee Health Care Coverage

Increase in expectations of employee productivity	44%
Increase in the costs of consumer services/products	29%
Decrease in other employee benefits	29%
Decrease in hiring of new staff	28%
Decrease in employee salaries/raises	22%
Increase in the use of offshoring/outsourcing	19%
Decrease in employee training/professional development	19%

Source: SHRM Online Survey, September 2004

Figure 4 | **Trends in Hours Worked Per Capita**



Source: OECD Employment Outlook, 2004

the main reason many business leaders outside of the HR profession are starting to better understand the strategic worth of HR. Up until the 1990s, the percentage of shareholder value could be almost completely attributed to the financial performance and capital assets of the firm. This proportion has dropped in the last decade, and now a large percentage of shareholder value is made up of intangible assets. As a result, businesses must now identify and measure these intangible assets and create strategies that enhance and support them.

HR professionals may increasingly work with their finance and accounting counterparts to determine the best way to measure intangible assets as they relate to human capital. In order to do this effectively, HR professionals must become investor-literate. Leading HR academics David Ulrich and Norm Smallwood at the University of Michigan Business School suggest that HR professionals who want to better understand how investors determine intangible value must be able to answer the following questions:

- Who are your five major shareholders? How much of you do they each own?
- Why do they own you? What are their investing criteria (e.g., dividend stock, growth stock)?
- What is your price to earnings (P/E) ratio for the past decade, and how does it compare to your industry average and to the firm with the highest P/E ratio in your industry?
- Who are the top analysts who follow your industry? How do they view your company versus your competitor(s)?
- How are you including key investors and analysts in the design and delivery of your HR practices (e.g., succession planning, leadership development, reward and recognition)?
- How well does your board govern itself, not just on the institutional shareholder service criteria but also on the process for good board governance?

The breadth of business issues these questions cover shows how intangible assets can be derived from a wide variety of sources. These may vary depending on the industry and its competitive environment. Measuring and managing these assets may not be easy and will require an in-depth understanding of the business. But HR leaders who can better understand the intangible assets that give their organizations value are most likely to be able to implement strategies that will leverage these assets to create growth and improve productivity.

Promoting future productivity growth through HR practices

The increasing importance of productivity, along with a growing awareness that intangible assets, many of which are directly related to human

resources, now comprise a greater share of what makes a business valuable, is highlighting HR's strategic role in promoting business growth. As measurement of these assets develops and improves, the impact HR makes on specific areas that may be most closely linked to improved productivity will be better understood.

Management barriers to productivity

Addressing the management barriers to productivity is one of the key ways HR professionals will be able to make a major difference in the productivity rates of the organizations they work for. Though the latest data indicate that working hours do play a role in increasing productivity, an overreliance on overtime and long working hours may prevent employers from developing more efficient working methods.

This is a critical issue for human resource professionals because studies indicate that the main barriers to productivity are management issues. A Gallup poll last year found that most senior executives in U.S. companies believed that poor management was the primary cause of lost productive hours. A study, commissioned by Proudfoot Consulting, accompanying the poll found that the three main barriers to productivity were insufficient management planning and control, inadequate supervision, and ineffective communication.

With working hours already high—the study also found that Americans have had the longest working hours since 1973—increasing time at work may be a less effective strategy for improving productivity than addressing management issues. This may be particularly true in the future because, according to numerous studies, including SHRM's 2005 research on job satisfaction, the generations that will dominate the workforce after the retirement of the baby boomers place a much greater value on work/life balance than previous generations and may be resistant to increased working hours.

The use of flexible schedules is one strategy that appears to simultaneously boost productivity per hour worked and address employee work/life balance concerns. A recent report from Corporate Voices for Working Families looked at the experience of 28 major companies that implemented various types of flex programs. The research found that flexible work options not only benefited employees but also improved profitability through a number of different ways. Examples of savings include $41.5 million at Deloitte, a professional services company, due to reduced turnover directly attributed to flexible working hours, a 50% reduction in transaction completion times at PNC Financial Services Group, along with reduced absenteeism and turnover after introducing compressed workweeks, and major improvements to employee satisfaction scores among the participating companies. The study's authors attributed many of the productivity improvements to the sense of ownership and responsibility the employees felt—in order to enjoy the benefits of flexible scheduling, they had to work together as a team to ensure coverage and customer satisfaction. This appeared to have a ripple effect by creating the incentive to seek out other ways to complete tasks more efficiently and to work together effectively.

Innovation and collaboration

Supporting innovation through effective human capital management practices is another example of the way HR can have an impact on productivity in organizations. The most competitive businesses and economies in the world are those where innovation is constant. Though individual genius continues to play a role in innovation, increasingly it is the ability of highly knowledgeable and skilled individuals to work in collaboration that creates value. One reason for this is because the knowledge needed to create new products and services has become so complex that it requires highly specialized skills that can only come together through the involvement of individuals from multiple knowledge disciplines. Finding ways to bring together the right elements of knowledge and skills to create innovative products will be central to HR's role in promoting productivity. Because it is not only the individuals but the relationships between individuals that help create the right environment for innovation, HR professionals will be equally focused on finding the right individuals and on building the right teams.

With ineffective communication as one of the top barriers to productivity, effective use of collaborative tools as a way to enhance communication among teams and between employees and organizational leadership could also have a major impact. Collaboration and teamwork may, in fact, be the most critical factors determining productivity and innovation. Recent research from the Harvard Business School looking at success factors in a number of different work environments suggests that the way people work together is more important than any other factor leading to success. In one example, death rates from similar procedures performed by the same individual heart surgeon varied depending on which hospital and which team the heart surgeon worked with, suggesting that the quality of the team is even more impor-

tant than the quality of the individual surgeon in determining the outcome of the procedure. In the future, HR may need to work even more closely with managers to help them develop and maintain high-performing work teams. Creating the atmosphere where teams thrive may be one of HR's most important contributions to improving productivity by improving performance through effective collaboration and teamwork.

Technology

According to a recent McKinsey global survey of business executives, 71% of the surveyed global business leaders agreed that technological innovation would have a positive impact on profits. The role technology plays in improving productivity will, however, continue to be a matter of debate. How technology helps develop and interact with organizational capital may be the main area of interest, particularly where HR is concerned. Organizational capital includes components like corporate knowledge or intellectual capital—both tacit knowledge and stored data—along with issues such as culture, values and work environment. It also includes work organization and practices. In a working paper from the National Bureau of Economic Research, professors Baruch Lev and Suresh Radhakrishnan estimated that organizational capital accounted for over 70% of sales growth in the 250 companies they studied.

Technology appears to stimulate an investment in organizational capital. New processes and ways of organizing work, new ways of collaborating, working in teams and communicating, and the development of new knowledge and skills often appear as a result of the introduction of new kinds of technology. Some analysts believe that the domino effect the introduction of new technology has on various aspects of organizational capital may account for more gains in productivity than those directly attributable to the technology itself. Tracking and shaping these outcomes will therefore be crucial to understanding how technology complements organizational capital to improve productivity.

For HR professionals working in smaller organizations, new developments in technology could have a major impact on productivity by expanding access to tools and processes that were once available only to major corporations. In its contribution to SHRM's *Special Expertise Panels 2005 Trends Report*, SHRM's Technology and HR Management panel listed the "expanded use of the Web for delivery and utilization of HR applications on a service basis" as its number one HR Tech trend that would influence the workplace in the coming years. Though the development of this trend depends largely on the ability of application service providers to provide secure and consistent service, it could enable many more small- and medium-sized organizations to use advanced HR applications if they are able to lease software and use it via the Internet. The second most important trend the experts listed was "the evolution of Web-based employee and manager self-service applications from basic data updating to sophisticated strategic applications and workflows." The diffusion of sophisticated HR tech applications to a wider range of businesses, and within those businesses to a greater number of employees through self-service applications, could have an important impact on productivity, especially if it reinforces other forms of organizational capital.

Talent management and global sourcing

With so much of the productive capabilities of organizations stemming from teamwork, collaboration and the way that other forms of organizational capital enhance or support teams, clearly one of HR's main contributions to productivity will be through talent management—particularly recruiting talent and supporting managers in the development of their teams. In SHRM's *Special Expertise Panels 2005 Trends Report*, the Workforce Staffing and Deployment panel focused on the growing complexity of the staffing function as one of its top trends. There are several reasons for this. First, as knowledge and skills become more specialized, those who recruit talent for specific roles will need to have a better understanding of the knowledge and skills required for success. In addition, the importance of building teams for innovation means that staffing professionals will need to balance the skill demands of a specific job role with those of the team. Project teams themselves could become more complex with international and virtual teams becoming more common even in smaller organizations.

According to the panel, if skills shortages become a concern, "HR and its recruiting specialists will focus on building pipelines of prospects and candidates in advance of openings." Greater specialization of skills and a global labor pool will increase the complexity of talent and skills management and will require HR professionals to create standards and measure effectiveness.

Strategic planning and change management

Because productivity is determined largely by issues that are influenced by the HR function, strategic plan-

ning that is focused specifically on workforce issues could become a highly effective tool in anticipating and managing change, as well as in improving productivity. Strategic planning models often focus on the external business environment but do not give much attention to factors that will influence the potential pool of employees in the future. However, the growing importance of intangible assets, along with organizational capital, in determining business success means that changes that will influence the availability of talent and the priorities and concerns of employees in the future are as important to consider during strategic planning as economic and financial trends.

In addition, in a highly complex global market where change is constant, employees themselves may be the best source of information on new trends and developments that must be considered during the strategic planning process. HR must take the lead in communicating this knowledge at the periphery to their organizational leadership. HR will also play a central role in implementing strategy by communicating information from the top down.

Conclusion

By effectively addressing the barriers to productivity, encouraging innovation through collaboration and teamwork, using technology to support organizational capital and leading the way in talent management and strategic planning that take into account the significance of future workforce issues, HR will play a major part in promoting productivity. Though productivity is widely acknowledged among economists and business leaders to be the key determinant of organizational and national economic success, the importance of human and organizational capital in promoting productivity is only now being understood. If HR professionals can demonstrate that they have not only an in-depth understanding of the importance of productivity but also the means to improve it, they will prove how fundamental effective HR practices are to organizational success. WV

Workplace Visions explores developments in society, economics, science and technology, politics and government, and the law to stimulate thought and discussion on new issues and trends affecting the human resource profession. Material for the newsletter is gathered through contacting experts in the field and conducting extensive literature reviews.

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Aghion, P., & Howitt, P. (2005). Appropriate growth policy: A unifying framework [The 2005 Joseph Schumpeter Lecture]. Retrieved November 8, 2005, from **http://post.economics.harvard.edu/faculty/aghion/papers/Appropriate_Growth.pdf**.

Bernstein, A. (2004, December 6). Shaking up trade theory. *Business Week.*

Carden, S., Mendonca, L., & Shavers, T. (2005) What global executives think about growth and risk. *The McKinsey Quarterly*, 2.

Closing the growth gap. (2005, October 29). *The Economist*.

Engardio, P., & Roberts, D. (2004, December 6). Special report: The China price. *Business Week*.

Esen, E. (2005). *2005 job satisfaction survey report*. Alexandria, VA: Society for Human Resource Management.

Jagger, N., Nesta, L., Gerova, V., & Patel, P. (2005). *Sectors matter: An international study of sector skills and productivity* [SSDA Research Series RR14].

Lohr, S. (2004, February 2). Technology and worker efficiency. *The New York Times*.

Organisation for Economic Co-operation and Development. (2005, July). OECD productivity database. Retrieved from **www.oecd.org/statistics/productivity**.

Porter, M., Schwab, K., & Lopez-Claros, A. (2005, September). *The global competitiveness report 2005-2006*, *World Economic Forum*. Hampshire, England: Palgrave Macmillan.

Roach, S. (2005, November 30). The productivity paradox. *The New York Times*.

Schmitt, J., & Baker, D. (2004, November). *Bad times: The impact of changes in work schedules on productivity growth* [Briefing Paper, Center for Economic and Policy Research]. Retrieve November 9, 2005, from **www.cepr.net/publications/bad_times.htm**.

Schrage, M. (2005, November 7). For innovation success, do not follow the money. *Financial Times*.

Schramm, J. (2005, October). Planning ahead. *HR Magazine*, 10.

Schramm, J. (2005, August). Revisiting the Internet. *HR Magazine*, 8.

Society for Human Resource Management. (2005). *SHRM Special Expertise Panels 2005 trends report*. Alexandria, VA: Author.

Study shows Americans working longest hours since 1973. (2004, September 8). *Certification Magazine*. Retrieved November 8, 2005, from **www.certmag.com**.

Teicher, S. (2005, November 9). Report: Why flexible schedules benefit businesses. *Christian Science Monitor*.

Thurm, S. (2005, November 7). Teamwork raises everyone's game. *The Wall Street Journal*.

Ulrich, D., & Smallwood, N. (2005). Human resources' new ROI: Return on intangibles. In M. Losey, S. Meisinger & D. Ulrich (Eds.), *The future of human resource management*. Hoboken, NJ: John Wiley & Sons, Inc.

World Economic Forum. (2001, January). *The U.S. productivity miracle…or myth?* Retrieved November 11, 2005, from **www.weforum.org**.

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