

Corporate Success in the IT World

IBM and Xerox at the crossroads

Computers, coupled with global Internet communication that connects the global economy presents managers of large, old economy businesses with critical operational challenges. **IBM Corporation** and **Xerox Corporation** are two examples of great U.S. companies who now must compete with fearless dot.coms and new economists. Information technology (IT) experts are quick decision makers who understand lightning fast computers that speed up all business tasks. In the new IT world, old economy companies now need to change business practices to survive in a transformed global reality.

Eight years ago, IBM began its restructure after Board chairman **John Akers** retired following three years of escalating losses. IBM's viability was in doubt. This dominant force of the early computer revolution faced declining business, rising losses and a crisis of investor confidence. The success of the personal computer had undermined IBM's strength. The relevance of IBM mainframe computers in a wired world was being questioned.

To set a new direction for IBM, **Louis V. Gerstner, Jr.**, an IBM outsider, was elected president in 1993. The Board of Directors opted for a non-IBMer to overhaul the corporation since IBM's older business model was foundering.

IBM's proud heritage of computer proficiency created impressive profits in the 1970s and 1980s. Yet, profits and success also can create a false security. As the IT revolution evolved, IBM's dependence on mainframe revenue streams spawned satisfaction and overconfidence. Creativeness, hard work and innovation that brought success was underutilized. The profitable product line — the cash cow mainframe which was delivering — nourished a contented environment. When the paradigm shifted and the mainframe product faltered, the cash cow became sick. The culture of success had bred a soft, maintain the status-quo environment.

Gerstner's training, personality and perception helped him recognize that complacent IBMers had to wake up. To rouse the corporation and to renew profitability, he implemented cutbacks that an IBM insider would

have found difficult to perform. Radical change was necessary for corporate survival. Unprofitable departments and product lines were dropped. If a division did not conform with Gerstner's new vision, it was sold. Amenities and perquisites were scaled back. Fewer corporate jets took off. Seniority without productivity could lead to early retirement. In this uncomfortable process, Gerstner rallied his employees with promises of a new, brighter future. Promotions and incentives were available to those who shared his views and contributed to his goals.

Now, after eight years on the job, Lou Gerstner has charted a new, increasingly profitable course for the company. IBM is downsized, restructured and restaffed. Managers, chosen from within and from without IBM, have implemented Gerstner's new policies. His message has connected with IBM's 200,000 employees encouraging them to diligence and concentration on markets and products that bring growing profits.

A new focus — really a return to IBM's roots — was put forth. The mainframe staple of IBM did not die as some predicted. Large corporations, long IBM's best customers, were coddled and attended to. While IBM was central to the coming-of-age of the personal computer, the PC became more a mass market consumer item than a tool of corporate success. Large corporations needed connected, internal, secure networks and large data bases. IBM was, and still is, the world leader in large computers which serve this arena.

Rather than decentralize and divide the corporation — an Aker's plan for restructure — Gerstner favored centralization and strong control. As a hands-on executive, Gerstner thrives on the detail believing that if small things are controlled, chances are big things are, too. Managers can no longer hide behind endless conferences or pass-the-buck studies. Action plans are held to short time frames. Managers are expected to deliver positive results and solutions to problems. The luxury that had crept into IBM suites is replaced with a hard driving, work oriented environment.

Gerstner focused the corporation on its strengths, its world class heritage, its highly regarded research facilities and its primary customers. Nothing disturbs Gerstner more than neglecting customers. Sales, service and corporate relations personnel are directed

to be responsive and proactive to assure customer happiness.

Gerstner has engineered an impressive turn around. IBM stock, which plunged to a low of \$10.15 per share (adjusted for splits) in 1993 after the corporation posted a \$3.5 billion loss has rebounded to a new high of \$139.18 per share in 1999 and a profit of \$4.44 billion in 2000.

By focusing on *e-business* — a catchword for all types of Internet networked business tasks — IBM aims to profit from the connected world. The pendulum has swung away from the PC back to IBM's strengths — large networked computers. The result: Gerstner has fulfilled his charge to return IBM to the top echelon of the information technology world.

The year 2000 burst of the high technology bubble (confirmed by NASDAQ's market plunge of dot.coms) drew Gerstner's attention. In the IBM 2000 annual report, he wrote, "Big shifts in history usually begin with a romantic revolution. Whenever people set out for the unknown, they do so in the spirit of adventure. But when they arrive there, they put down roots. They build something that lasts."

Lou Gerstner sees IBM as surviving the onslaught of the romantic Internet-based business bubble. He views the adventure as a prologue to IBM's success in the more tranquil and lasting high technology future.

As IBM has weathered the hot blast of the new economy's breath, the Xerox Corporation has been charred and damaged by the challenges of the new economy.

Xerox, the producer of a magic machine that made instant copies of almost any document, grew through the 80s and 90s into a mammoth, global corporation. Like IBM's franchise in computing, Xerox had its own franchise in office copying.

Xerox's largest business unit has remained black & white copy machines. However, the new economy has deposited desktop and home office printers everywhere as copy producers. Competition from desktop printers plus intense price pressure from rival copy machines has eroded Xerox's market share of the changing business printing market.

In 1994, Xerox acknowledged the changes by calling itself *The Document Company* to signify a transition beyond copying. By 1999, Xerox's serious financial losses stimulated the Board of Directors to hire **G. Richard Thoman** — a Vice President of IBM and former fellow executive of Lou Gerstner at **American Express**. Thoman was expected to implement changes at Xerox to replicate the success of IBM.

There are major differences between IBM's problems in 1993 and Xerox's problems in 1999. While IBM was challenged by the IT revolution on its home turf of computing, Xerox is challenged both by vigorous competition for copy machine customers and by fundamental changes in how the printed word is used. Letters and memos are increasingly transmitted by e-mail rather than by hard copy. When a hard copy is needed, it is output to a digital printer. Electronic handling of words and images, reduces the need for office copying.

While Xerox now concentrates on digital printers, the most profitable Xerox office machine for thirty years was the Model 914 copier, a convenient printer of hard copy. Over 200,000 machines were built with profits reaching 70% gross margin. While the model 914 was discontinued in 1976, light/lens technology remained a Xerox strength. The transition to digital printers, however, reduces profitability as these machines are more complex and costly to produce than the older technology.

IBM has weathered the hot blast . . . Xerox has been charred.

To expand their base of business, Xerox managers are broadening the company's focus beyond

business customers to include all hard copy printing users. The **DocuTech**® division is aggressively pursuing contacts with traditional printers as a growth market.

Market researchers divide hard copy printing into two segments: variable business printing and traditional ink-on-paper fixed printing. The market for traditional printing is estimated at six times the volume of office printing. Fixed printing includes the publishing of books, magazines and newspapers plus all printing wherever volumes of identical copies are required. The variable printing business market includes letters, reports, invoices, purchase orders, receiving reports, accounting reports — all business documents that are one-of-a-kind.

In 1970, Xerox committed to an innovative basic research initiative when then president, **C. Peter McColough**, instructed chief scientist **Jack Goldman** to attract top scientists to pursue knowledge in *advanced physics and materials* and in *computer science*. McColough sought new Xerox inventions to grow its customer base as the information age evolved. Goldman found a vacant building near Stanford University and formed the **Palo Alto Research Center (PARC)**. He attracted top scientists to an intellectually stimulating and supportive environment to pursue new ideas in printing systems and computer applications. Backed by a profitable Xerox, PARC could compete with other renowned research facilities in advance business oriented products and methodologies.

From the inventions of PARC, Xerox managers hoped to find profit making commercial products that could enrich its product line and advance its core business. However, new ideas and brilliant discoveries, are often unappreciated by business pragmatists. An R&D effort that is a profit making resource depends upon decisions that separate laboratory curiosities from commercially useful products.

Xerox, like many companies, has both succeeded and failed in the difficult triage of new product selection. Brilliant, creative scientists operating at the cutting edge follow their fertile imaginings down many paths. Truly innovative discoveries need perceptive evaluation for commercial potential. Selecting and investing in projects for further refinement and commercial production is a skill separate from the basic scientist's job. Examples of successful research laboratories are found among the strongest pharmaceutical companies whose prosperity is linked to their skill at inventing useful new drugs. IBM and 3M also have effective procedures to control, oversee, pilot test and market new products for their industries. Now, as the IT world beckons, a structured, winning product development program becomes an essential for Xerox to compete in the new economy. An ability to invent and commercialize new products and processes is crucial for a prosperous future.

Xerox is centralizing oversight of its widespread research and development facilities. These include **PARC**, Palo Alto, CA, **Corporate Engineering**, **Xerox Architectural Center**, and the **Wilson Center for Research and Technology**, Webster, NY,

Xerox Research Centre of Canada, Mississauga, Ontario, **Xerox Research Centres Europe (XRCE)**, Grenoble, France and Cambridge, England.

A **Xerox Technical Enterprise** division is tasked to evaluate market opportunities for products invented by the various laboratories. Promising developments have three tracks:

- Manufacture for Xerox's direct benefit
- Licensing to others
- Spin-off as a separate venture

Two recent spin-offs include **Gyricon, Inc.**, a developer of electronic and reusable paper products, and **Contact Guard, Inc.**, a source of imbedded digital signatures that identify and protect intellectual property.

After one year of restructuring attempts fraught with internal division, Rick Thoman left Xerox. In May 2000, an executive committee headed by Board chairman Paul Allair and president Anne Mulcahy, took over. Both are Xerox veterans. Their task is the same as Thoman's — to restructure Xerox, to return it to profitability and to be successful in the new economy.

Anne Mulcahy is a powerful sales executive with a string of successes within the powerful Xerox sales organization. At a recent media extravaganza, Mulcahy answered Xerox's critics while offering inspiration to Xerox's employees. She outlined programs to cut costs to improve financial results. She described new efforts and demonstrated new products to build market share in color copiers and printers. Partnerships with other printer companies that broadened Xerox's product line were announced. The traditional fixed printing industry was targeted with new products demonstrating leadership in digital technology.

In April 2001, Mulcahy reported a 12 cent per share operating loss for the first quarter of 2001 — considerably better than Wall Street projections. Factoring in asset sale, Xerox actually posted net income of \$158 million. Mulcahy claims to be ahead of schedule on promised asset sales that reduce debt and she is ahead of plan in cost cutting. In overhauling operations, Mulcahy remarked, "We put discipline back into our business."

A cloud still hangs over Xerox's year 2000 financial reports which are under SEC investigation. In May 2001, an audit by KPMG LLP certified Xerox financial statements for the past three years. This permitted

Xerox to file its 8-K SEC report for the year 2000 and an annual report is expected shortly. Restated Common Shareholders' Equity was reduced \$137 million for the year 2000. Net income for year 2000 was increased by \$127 million. According to Paul Allaire, "the companies' liquidity is not impacted."

For success in the IT world, Xerox will need a steady flow of new products to build new divisions to replace lost revenues from a declining copier business. Licensing, spin-offs and outright sales of new developments are stopgap measures that are unlikely to replace the profitable stream of income from copiers. The conversion of inventions into commercial successes, the mission of the Xerox Technical Enterprise division, needs to be a strong contributor to a new Xerox. If pharmaceutical companies, IBM and 3M can do it, so can Xerox.

What then is the appropriate strategy for a large, successful old economy corporation in a world embroiled in the IT revolution? Successful corporations develop their own cultures which, over time, may deflect the corporation from its mission. The negatives of success can be a bloated bureaucracy, loss of profit making goals, blurred mission focus, unexpected competition and slow reaction to new technologies. As successful products mature, a flourishing business requires steady infusion of new thoughts, new products and new directions.

In the new economy, the IT tools which include global access by computer proficient people, reduces the former advantages of a large corporation. Strong, central authority, the organizational model of World War II that is still with us, can be essential to the large, complex organization. Just as strong, single focused leadership aids a small entrepreneur, so the strong hand at the helm aids a complex organization. Both large and small organizations now compete furiously in the fast paced, IT economy that rewards agility and responsiveness.

Inertia and waste in a large corporation exposes opportunities for an agile competitor. The new economy, with a culture of smarts, technical savvy, hard work and intelligence, puts forward a strong challenge to established leaders of the prior millennium. To compete today, large corporations need adaptability and decisiveness to survive. There is little time for long study or internal political battles.

The chief executive must be proactive, creative, confident and correctly focused.

Just as IBM modified its business strategy, traditions, work ethic and product emphasis, so must Xerox. To succeed in the new economy, Xerox needs to deliver on its short term business plans and to reorganize its research and development efforts.

The IT revolution challenges large corporations like Xerox and IBM to read the future to survive. To prosper in the new economy, both companies must make productive use of their renowned research and development facilities. Effective development of new products is essential to growth in the new economy.

Lou Gerstner identified the weaknesses of the IBM he inherited in 1993. He then corrected the weaknesses and positioned the company to benefit from the new paradigm. Xerox, with similar problems, needs to restructure and respond as the high technology company that former president Peter McColough foresaw. PARC and other Xerox research facilities form a world class resource that can produce the products and vision that Anne Mulcahy needs for success. ❖