

Hewlett Packard case

Stage V. Adaptation

Keys to Success

As a young person, David Packard had a variety of interests that ranged from gardening to ham radio and playing football. His interest in gardening began when helped his mother as a young boy during which time he developed an interest in mathematics and science. David Packard, *The HP Way – How Bill Hewlett and I Built Our Company*, New York: HarperCollins Publishers, Inc., 1995, pp. 5 – 7 and in passim. He spent many hours studying natural sciences material in the *World Book Encyclopedia* and conducted his own experiments, including the making of dynamite and his first vacuum tube. In his last year of grade school, he began taking violin lessons. During his first year of high school, Dave played second fiddle in the orchestra and tuba in the band. During his last two years in high school, he was on the basketball, football and track teams. In high school, he took the traditional academic program which included Latin, math and sciences. From his home in Pueblo, Colorado he went to Stanford University from which he graduated with a degree in electrical engineering. During his summer vacations he worked as a hard-rock miner, in a brickyard, for a construction company and delivering ice. Not only is “variety the spice of life” but, with David Packard, it provided an experiential base for being adaptable. Following graduation from Stanford, he was employed by General Electric from January, 1935 until June, 1939. During that time, he worked in several different sections of the company, including research and being on the factory floor “to make sure every step was done properly.” *Ibid.*, p. 27.

Similar to David’s background, Bill Hewlett was born into an upper middle class family. “His parents were well educated and fairly well off.” Packard, *ibid.*, p. 19. His father was a medical doctor who became a professor at the Stanford Medical School. He died of a brain tumor when Bill was twelve years old. Following that tragedy, Bill’s family went to Europe and travelled extensively. Following the family’s return to San Francisco, Bill became an exceptional student in the sciences and indifferent in almost everything else. In high school he enjoyed chemistry and physics. He continually experimented and built things such as a Tesla coil, an electric arc from carbon rods and a small crystal radio set. Bill went to Stanford University and graduated with a degree in engineering and did graduate studies at Stanford and a master’s degree from M.I.T.

Very early in the history of the Hewlett Packard, the founders realized the importance of adapting to business realities. Their first “official” business meeting was held in August, 1937 and dealt with a “tentative organization plans and a tentative work program for a proposed business venture.” *Ibid.*, p.32. The product ideas that they discussed included high frequency receivers and medical equipment and according to the minutes of their first meeting, “... we should make every attempt to keep up on (the newly announced technology of) television.” *Ibid.*

In 1939, Bill Hewlett and Dave Packard started their company. Their workshop was a one car garage behind the house that they shared. By the autumn of 1939, their business had grown to the extent that they needed additional space. They rented a small building in Palo Alto. As the company continued to grow, HP adapted by constructing and moving into an ever-expanding complex of buildings and locations in several regions of the world.

Their first product, an audio oscillator, was identified as the HP Model 200A, “because we thought the name would make us look like we’d been around for a while”, said Dave years later. Selling that product in a competitive market place made them sensitive and adaptable to prices. They sold their product for \$54.40 against competitors’ which were selling less stable oscillators for more than \$200. One of their first customers was the Walt Disney Studios who purchased eight Model 220B oscillators for \$71.70 each, an increase of \$17.30 (31.8 percent) more than the similar Model 200A. Those transactions reflected the company’s adaptability to market conditions, competing products, market prices and their large, prosperous customer.

Mr. Hewlett and Mr. Packard were flexible when they had to choose a name for the company. Originally, the proposed name for the new company was The Engineering Service Company. Subsequently, they made the strategic decision to use their own names for the company. They made that decision with a flip of a coin. They further manifested their adaptability when they decided to practice participatory management, their open office concept, “management by walking around” as well as other progressive approaches to managing their company. By contrast, the traditional hierarchical, authoritarian approach was much more rigid albeit more efficient to manage. By the very nature of their technological enterprise, the founders, their company and its employees had to be adaptable to waves of changes in their emerging sciences, technologies, its R&D and the applications to products demanded in their markets. From 1939 onward to the present, HP successfully adapted to changing and challenging conditions, some of them being threats while others presented opportunities.

Throughout their active involvement in the company, Dave Packard and Bill Hewlett stressed the importance of the company and its organization being “nimble”. Being nimble referred to agility and quickness, two attributes that are inherent in being adaptable. To accommodate its growth and increasing diversity, HP established a product-based, division structure so its growing size would not result in a loss of “nimbleness”, i.e., its creativity and adaptability. Each product group became a self-sustaining organization responsible for developing, manufacturing and marketing its own products. Any division that grew to 1,500 people was divided with the resulting groups have their own profit and loss accountability. The decentralized organization allowed the company to react readily to changing conditions, move quickly and not be constrained by overly bureaucratic structures and processes.

During the history of HP it invented, developed, produced and sold a growing range of technological products, starting with commercial oscillators and expanding into military, medical and business devices and equipment and ultimately into consumer

products. HP's expertise in scientific and applied research and development in electronics evolved from its co-founders into the establishment of the company's central research facility as one of the world's leading commercial research centers (HP Labs) by 1966. Hewlett Packard diversified its product lines and markets dramatically and into services, systems and solutions. Much of the company's growth was internally generated but HP also entered into joint ventures, e.g., Yokogawa Hewlett-Packard, and acquired others that fit into its evolving business needs, e.g., F&M Scientific Corporation for analytical instrumentation and Compaq Computer for market share and added expertise in personal computers. From a small regional company of two people, HP burgeoned into a large multinational corporation of more than 150,000 employees in more than 120 countries and revenues of nearly \$87 billion. From a privately owned company it expanded its ownership structure into a stock company with employee shareholders and ultimately to a publicly traded corporation that was listed on the New York and other major stock exchanges.

Stages of adaptation

World War II

In 1939, HP started out as a company making audio oscillators for commercial sound engineers such the Disney Studios. Coincidentally, World War II was declared that year in Europe. The United States became a major supplier of military equipment, notably microwave signal generators, for Britain and its allies. The start of World War II turned "a trickle of U.S. government orders for electronic instruments into a stream and then a flood. HP History and Facts: 1940s, "HP timeline – 1940s", www.hp.com/cgi-bin. By its second year of operations, HP had adapted to changing world conditions, diversified its product lines and re-oriented much of its business toward military R&D, production and distribution. "Our annual sales volume moved up to a million dollars very quickly, and by the end of the war we employed two hundred people." David Packard, *op. cit.*, p. 54. From then on to the present, HP aligned itself with the United States military and adapted to its requirements for a significant part of its business. From 1941 until the end of WWII, Bill Hewlett was an officer in the Army Signal Corp. From 1969 to 1971, David Packard served as Deputy Secretary of Defense.

A dynamic progression of adaptation

Throughout its history, HP advanced through an ongoing learning curve of quality performance based on inventive and innovative electronics technology. From its origins as an adaptor of oscillator technology to a leading edge developer of sensors and other measuring devices, e.g., high frequency counters and synthesizers, and on to become a leading inventor and producer of electronic calculators, atomic clocks and other advanced technology products, HP continued to progress by adapting advances in science and technology to its lines of products, services and systems.

Throughout the history of science, technology and the production of equipment, tools and a range of other products, the growing emphasis on precision presented a trend

laden with opportunities for HP. From its inception, Hewlett Packard focussed on precision in its science, technology and their products, services and systems. The company and its thousands of technical employees were constantly adapting to higher standards of exactness in every type of product that they worked on. Such adaptation to precision was one of the keys to HPs history of successes.

In the 1940s, HP entered the field of microwave technology for the military and continued its development and adaptation to growing industrial and consumer markets. Following World War II, professional and industrial emphasis on precision increased unceasingly. From those times onward, the focus on infinitesimal exactness accelerated unabated to the contemporary focus on nanotechnology. During the 1950s, the company invented high speed frequency counters, produced oscilloscopes and graphic recorders and entered into the business of plotters, a forerunner of its dominant printer business. Through the 1960s, HP continued its growth with new and innovative products and diversification.

During the early 1960s was a springboard period for Hewlett Packard. It made major advances in its body of technological knowledge and its applications. It entered the field of medical electronics through its acquisition of the Sanborn Company of Waltham, Massachusetts and entered the Asian market by forming its first joint venture, Yukogawa Hewlett-Packard, in Tokyo. By 1963, overseas sales accounted for nearly 20 percent of HP's business. Its largest markets were Western Europe, Canada and Japan. That same year, HP introduced the frequency synthesizer, one of the most complex instruments developed by the company. In 1964, the company gained international recognition for its cesium-beam atomic clocks, designed to maintain accuracy of time for 3,000 years with just one second of error. The cesium beam standard became the standard for international time, clearly a landmark accomplishment. During the next year, the company entered the analytical instrumentation field with its acquisition of F&M Scientific Corporation of Avondale, Pennsylvania. The acquisition expanded HP further into chemical analysis with its measuring and testing expertise.

In 1966, the corporation's expertise in research and development advanced greatly with the establishment of the company's central research facility. Initially, the primary areas of research were solid state physics, physical electronics, medical and chemical electronics instruments. That year, HP developed its first computer product as a versatile instrument for the company's growing line of programmable testing and measurement products. It was the company's first use of integrated circuits. Prior to the introduction of the HP2116A, most computers had to be kept in air-conditioned rooms on spring-loaded floors. Its initial sale was to an oceanographic organization which used it aboard a research vessel in a salt air environment for more than a decade. In 1967, HP further diversified into medical equipment with its introduction of a non-invasive fetal heart monitor that detected fetal distress during labor. The following year, the company brought out the world's first desktop scientific calculator. The growing variety of products and services being offered by HP was tangible evidence of its capability to adapt to changing market demands and technological advances.

The '70s was a decade of phenomenal growth at Hewlett Packard as it adapted successfully to its expanding markets and business opportunities. During that time, revenues shot up from less than \$350 million to \$2.4 billion or more than 6.85 times. The organization had to adapt to growing numbers of employees, their innumerable interactions and the need for them to be optimally productive. The total number of employees cascaded up from less than 16,000 to just over 52,000 or 3.25 times. HP's tradition of innovation continued with the introduction of an array of computing products. To sustain its growth, the corporation invested increasing sums of resources into the research, development, production and sales of new and innovative technological products and services.

In 1970, HP produced a laser interferometer that increased user's measurement capability to millionths of an inch. It was ideal for machine tool accuracy and enabled the company to become a world leader in that market. Two years later, Hewlett Packard made another advance in personal computing by introducing the world's first scientific hand-held calculator. *In 2000, *Forbes ASAP* named HP's calculator as one of 20 "all time products" that changed the world. The same year, the company expanded into business computing with its first general purpose computer that advanced its capacity for distributed data processing. The HP300 broadened the range of customer uses from high tech engineering and research to daily administrative data processing operations.

During the 1970s, Hewlett Packard continued to adapt to politico-economic conditions and develop new ventures internationally. In 1972, the People's Republic of China, under Chairman Mao Tse-tung, peeked through the "bamboo curtain" and invited HP to be the first U.S. firm to discuss trade in electronics. Five years later, Dave Packard made his first visit to China. During 1973, HP introduced the first electronic calculator to print Japanese characters. In the year following, the company introduced the first minicomputer to be based on 4K dynamic random access memory (DRAM) chips instead of magnetic cores. That same year, the world's first programmable pocket calculator was introduced. In 1975, the electronics industry adopted the HP-IB (interface bus) as an international standard, thus allowing one or more instruments to connect readily to a computer.

Through the 1960s and 1970s, HP adapted successfully to the dramatically increased miniaturization trend in electronics. In 1977, Hewlett Packard introduced the first personal information appliances; a combination wristwatch, calculator and personal calendar. The wrist instrument was capable of performing more than 36 functions when manipulating and interrelating time, calendar and numerical data. The miniaturization of the math functions and the small package engineering were acclaimed as extraordinary technological adaptations.

During the 1980s, HP's flow of new and innovative products continued to adapt to technological advances and growing markets around the world. In 1980, it introduced its first personal computer and first laser printer that were fast and inexpensive enough for use as an ancillary product in small, medium and consumer markets. After a lull in 1981, the following year was one of major advances for the company. In the United

Kingdom, HP Limited developed an electronic mail system. It was the first major wide-area commercial network based on minicomputers. The same year, HP introduced the first “desktop mainframe”, using 32-bit “superchip” technology. Its capacity was the same as the room-sized computers of the 1960s. The company’s third major innovative product brought out that year was its first hand-held computer. Weighing just 26 ounces, it provided 50 functions and became an early tool for mobile computing, connecting with peripherals such as a modem, digital cassette drive and printer/plotter. However, 1983 was another relatively slow year of product introductions for Hewlett Packard.

In 1984, Hewlett Packard’s renewed its emphasis on technological research, development and commercialization. It opened its second largest research facility, HP Labs, in Bristol, England. The same year, it introduced another breakthrough product, a high quality, low priced thermal inkjet printer an adaptation of the inkjet technology that the company had started at the HP Labs in 1978. By miniaturizing the large, industrial inkjet marking devices and offering it as an ancillary product for personal computers, HP offered its customers improved print quality, decreased power consumption and low cost printing. Such competitive advantages enabled the company to gain a major share of the printer market. During 1984, the HPO LaserJet printer was introduced. It would become the company’s most successful single product and the world’s most popular personal desktop laser printer. Two years later, HP was the first major computer company to introduce a commercial application of precision electronic architecture based on reduced instructions set computing (RISC). RISC microprocessors made computers faster, more powerful and less expensive. Developing the RISC technology took HP five years and was its most expensive R&D endeavor. In 1988, the company came out with its first mass market inkjet printer, the HP DeskJet.

The financial benefits of HP’s ability to create and align its technological progress with market growth was evident from its revenues climbing to \$6 billion in 1984, double what it was four years earlier. Its productivity advances were indicated by the company’s 47 percent increase in employees to 84,000 while revenues jumped 100 percent during the period of 1980-84. At the end of the decade, revenues nearly quadrupled to \$11.9 billion and the number of employees rose to 95,000, an increase of about 38,000 or close to 67 percent more than in 1980.

Through the 1990s, HP focussed on and adapted to the trends of technological simplification and integration as well as electronic mobility. Miniaturizing its products continued at Hewlett Packard. In 1991, the company introduced a palmtop personal computer that weighed 11 ounces, was roughly the size of a large pocket calculator and had as much computing power as a desktop personal computer system. Programs in the palmtop included a financial calculator, telephone numbers and addresses, Lotus 1-2-3, a simple text editor and an infrared link for transferring data. The same year HP introduced the color DeskJet which created a revolution in color printing. Expensive, specialized machines were replaced by HP’s high quality, relatively inexpensive color printing systems. In 1992, the company adapted to market demand and introduced the HP Corporate Business Systems product line. It was comprised of nine HP computing

systems with mainframe performance at a price that was as much as 90 percent lower than competing systems.

Being community-minded Hewlett Packard became increasingly aware of and aligned with environmental concerns that were especially germane to it. During 1992, the company implemented its *Design for Environment*; policies that were intended to make products more ecologically compatible. As part of its on-going environmental initiatives, the company introduced its *Energy Star* label and energy-saving features for printers. In 1996, HP recycled its 10 millionth LaserJet cartridge. The following year it expanded the recycling program to include HP inkjet print cartridges. By 1999, the company had tripled its recycling of LaserJet cartridges to 30 million.

In 1993, the company's programs of technological miniaturization and adaptation led to the introduction of the three pound OmniBook, a "superportable" personal computer. That same year, the company shipped its 10 millionth LaserJet printer. The following year was a bonanza with revenues increasing by \$5 billion, reaching \$25 billion, more than double its level of 1989. 1994 was also a year of major product introductions, including the light-emitting diode (LED). LEDs replaced incandescent lights in new applications such as cars, traffic control signals and moving message panels. During the mid-1990s, HP collaborated with Intel to develop a common 64-bit microprocessor architecture for the computers of the 21st century. Their new technology drew on years of innovative R&D at HP Labs. During 1994, HP introduced its OfficeJet personal printer-fax-copier, a space-saving, cost-effective unit designed specifically for professional home office users. In 1995, the HP Pavilion PC was introduced into the home computing market.

Organizational turbulence

After six decades of doing business and competing in the ever-changing fields of science and technology, HP was a highly developed and well established organization. Then it encountered some turbulence. Although the company's revenues soared from \$11.9 billion in 1989 to \$47.2 billion in 1998, they fell to \$42.1 in 1999. From a total of 95,000 employees in 1989, the company dipped to 92,000 in 1990 and 89,000 in 1991 before rising to a high of 124,600 in 1998. In 1999, in a drastic effort to cut costs and harshly contrary to the values, principles and practices of the *HP Way*, the Carly Fiorina led company laid off 40,200 (32.3 percent) of its employees. During the late 1990s, the company's new and innovative product and services initiatives dwindled to a mere trickle. Its progressive creativity, initiatives and adaptability waned.

The 1990s were a decade of significant leadership changes in the corporation. From 1987 onward, Bill Hewlett served as Director Emeritus, mainly in an advisory role. He passed away on January 12, 2001. In 1992, Lew Platt replaced John Young as President and CEO. The following year, Dave Packard retired as Chairman and was replaced by Lew Platt. Mr. Platt, an employee since 1966, won kudos inside and outside of the company for his championing of diversity in the workplace, establishing a balance between employees' work and personal life and directing HP to become a leader in

community involvement. He was also criticized for letting HP “run without setting a clear direction and not milking “old-line business to invest more heavily in the Net and digital photography.” “Making a New HP Way”, *Business Week*, August 2, 1999 www.businessweek.com/1999. Through the 1980s and 1990s, HP appeared to be fixated on the printer and PC markets and overlooked the potential growth of the internet. The company had been built by inventing groundbreaking products but, by 1999, the inkjet printer was the last one. It was introduced in 1984. Meanwhile, promising internet technologies wasted away in HP’s laboratories and the corporation lacked a “Net strategy”. HP’s inability to adapt to new opportunities and emerging markets became apparent.

In July, 1999, Carley Fiorina was named as President and CEO of the corporation. That decision was made in an effort to adapt HP to the Internet Age without sacrificing the values, principles and practices that had made it great. Ms. Fiorina was described as having “a silver tongue and an iron will.” Peter Burrows and Peter Elstrom, “HP’s Carly Fiorina: The Boss”, *ibid*. The choice of Ms. Fiorina to lead was a major effort by the Board of Directors to adapt to the evolving technological and market realities in HP’s business and economic environment. The former “star executive” of Lucent Technologies Inc. was the first woman to head a Dow 30 company and the first outsider to lead the “venerable” electronics giant.

While at AT&T, she managed the highly successful spin-off of Lucent in 1996. She then launched a bold \$90 million brand-building campaign that helped to transform the company from a traditional maker of telephone equipment into a major supplier for the burgeoning Internet sector. In 1998, after being promoted to President of Lucent’s \$19 billion global service-provider business, she revitalized the company’s product R&D programs that had stagnated with “long-coddled Bell Labs engineers”. *Ibid*. In an extensive interview with *Business Week*, one day after the announcement of her HP appointment, Ms. Fiorina set out her priorities for the corporation, in clear contrast to the participatory management approach of David Packard and Bill Hewlett. Her priorities included:

- * a new vision of HP as an Internet company that could provide a vast range of products for any customer that had to compete in the online and offline worlds;
- * invigorating HP’s innovative capabilities. The corporation had not had a major breakthrough product since its inkjet printer was introduced 15 years earlier;
- * reinventing HP’s “staid brand”, making it represent the next century rather than the last one; and
- * revitalizing the HP organization, transforming it from a “bloated bureaucracy”, consensus-style culture into the nimble, adaptive type of company that had contributed greatly to its previous successes.

The new CEO was challenged to adapt a traditional electronics company to the E-business revolution. HP had entered the Internet field years behind the leaders; IBM and Sun Microsystems. For years it was perceived as “little more than part of the clueless Establishment”. *Ibid*. That was one important reason why the Board had gone outside of the company for “a fresh face and a fresh approach.” To be successful, the new CEO had to be adaptable and find “a delicate balance between propelling HP’s stodgy culture out

of its moribund ways and into the high-speed Net Age” while not losing the attributes that made HP successful --- its depth in engineering and its old-fashioned quality and dependability.

HP’s slowdown in technological progress carried over into the early 2000s. It struggled to adapt to emerging technologies, markets and competition. Few technological innovations were introduced. Organizational developments predominated. The new President and CEO was the main focus of attention. In late 2000, the company announced a new business initiative into emerging markets. In March 2001, the corporation created a new services organization that included consulting, outsourcing, support, education and solutions deployment. Two months later, HP introduced an advanced processor that had been developed jointly with Intel.

On September 4th, 2001, HP and Compaq announced a merger agreement that was expected to create an \$87 billion global technology leader. For the next nine months, the merger preoccupied the corporation, in part because of concerted opposition to the transaction. Walter Hewlett, the son of the co-founder and a Director of the company, and other shareholders strongly opposed the merger through legal tactics and other means, because they believed that HP was paying too much, initially estimated at \$25 billion and later revised to \$19 billion, for the takeover of Compaq. Sales for 2001 dropped for the first time in HP history, by \$3.6 billion (7.4 percent) to \$45.2 billion. Profit targets were not met. HP was not adapting well to its new realities.

In mid-2002, HP returned to its progressive and innovative ways by announcing its largest consumer product rollout in history. Once again “agility” or nimbleness were the watchwords for the company, both in terms of its own strategies and tactics and those of its customers, both actual and potential. “The enormous pace of change and volatility in the current marketplace is causing enterprises to prioritize business agility as one of today’s imperatives for long term survival.” Russell Lee, “Enabling Business Agility”, www.hp.com/hpinfo/newsroom/feature_stories/2002/agility02/.html. Clearly, the links between tactical and strategic initiatives were evident in HP’s re-orientation and re-development. The launch of its IT Systems Consolidation program that year exemplified one of Hewlett-Packard’s major new strategic and tactical thrusts.

Later in the year, the company outlined new strategies that were intended to help customers manage the pace and complexity of home or business technology. The marketing-based, strategic initiatives were consistent with the corporation’s objective of improving customer value. HP’s customer “wish list” became part of its strategic vision statement. As part of its company strategy, HP aspired to adapt the following customer requests into reality:

- * solutions that address real problems;
- * better value, more tangible benefits from IT investments;
- * access to relevant information whenever, wherever;
- * increased simplicity across a range of technologies;
- * greater control over technology;
- * greater choice and flexibility; and

* dependable products, solutions and services.
2005 Hewlett-Packard Development Company, L.P., “Redefining the Value of Information Technology”, www.hp.com/cgi-bin/feature_stories/2002

In December, 2002, HP launched its Adaptive Management strategy to help businesses manage change and benefit more from their investments in information technology. Prospective customer benefits from adaptive management were intended to include:

- * immediate knowledge for intelligent actions;
- * greater control over the impact of business change;
- * cost-effective and timely allocation of IT assets;
- * better alignment of business needs with IT resources; and
- * ability to deliver computing as a value-added service.

Susan Twombly, “Adaptive Management Solutions from www.hp.com/feature_stories/2002/adaptive02.html.”

Change was the main focus of the adaptive management initiative. Whether the sources of change were internal and/or external, organizations and their managements had to respond by adapting to the evolving realities and their impacts. The technology that supported each process had to change also. “Given the fact that one change can create a chain reaction that triggers many more, it’s difficult for IT to keep up.” *Ibid.* As a result, technology tends to lag behind and become out of synch with the needs of or even dysfunctional for the organization. When that happens, technology begins to lose its value to the business.

Simply stated, adaptive management at HP was a flexible new approach that aligned business conditions and processes with technology resources. The objective of the approach was to deliver greater control over the impact of change on an organization. The strategy and its related tactics, programs, activities and resource allocations were based on several key management tenets such as having the visibility to look and focus beyond the “component-centric” view of traditional management solutions. Adaptive management had the flexibility to expand or contract the computing infrastructure on demand, the ability to simplify IT by delivering technology as a service that not only adapted to changing needs but also added value to the organization.

The HP OpenView software provided the tactical means for achieving such strategic adaptive management advances. The purpose of the software was to move organizations “beyond the passive management of devices to the active management of all technology resources, both internal and external...”, i.e., to take action in “real time” Twombly, *loc. cit.* The adaptive management approach was intended to move away from the conventional management of technology. Conventional management technology only monitored the computing environment and alerted businesses when problems occurred. Using OpenView enabled organizations to ramp up or trim down computer capacity, adding or reallocating technology assets. Such capability would enable organizations to keep its’ IT resources in synch with changes in its operating conditions and processes. The adaptive management campaign was comprised of new services, software, business solutions and an enterprise reference architecture that was designed to help companies measure, structure and manage change by creating stronger linkages between the business and its IT.

In early 2003, HP launched a worldwide initiative for small and medium-sized (SMB) market, one of the fastest growing and most important segments in the global economy. The Smart Office Initiative provided customized support services, local expertise and products to help SMBs manage their unique business needs. As part of the strategic initiative, HP introduced more than 100 different products, solutions and services for the SMB market segment. Revenues for 2003 jumped to more than \$73 billion, an increase of nearly \$16.5 billion (29 percent). HP was evidently out of its lethargy and adapting its technological expertise to evolving markets.

The surge continued in 2004. HP announced its digital entertainment strategy and an array of products and partnerships aimed at transforming the way people experience music, movies, television, photography and digital entertainment. In August of that year, a variety of new digital entertainment products were brought out. The products included Vivera inks, plasma and LCD flat-panel televisions and the HP Digital Entertainment Center. The latter system enabled consumers to manage music, movies and photos from a single unit in a home setting. To increase efficiency, decrease the time to market for new or innovative products, services, and solutions, a series of organizational changes were undertaken. The corporation combined its Imaging and Printing Groups with the Personal Systems Group. The Groups' re-organization brought together the company's printer, imaging and supplies business, projectors, and digital cameras from the IP Group and the desktop and notebook PCs, handheld products, personal storage appliances and workstations.

In February, 2005, Chairwoman and CEO Carley Fiorina resigned. The following month, HP selected Mark Hurd to serve as CEO and President of the corporation. Revenues for the year reached \$86,696, the highest in the history of Hewlett-Packard.

Notes

The long history of successes at Hewlett Packard did not just happen fortuitously. Its co-founders were creative, intelligent men of considerable initiative and capabilities. Not only were they highly qualified engineers with degrees from Stanford and M.I.T. but they were very capable managers. In large part, the key to their success was adaptability. They were flexible in their management style, preferring participatory management over the traditional hierarchical, authoritarian ways that prevailed throughout the military, industry and other types of organizations.

In part, the **Adaptation Stage** of this case could be perceived as redundant to the **Development Stage**. Many of the successful adaptations that HP made during its history were significant developments for the company. Such adaptations tended to follow tactical and strategic reviews, feedback from the monitoring of the organization's performance, the company's previous developments and relevant aspects of its orientation, especially its purposes, various forms of intelligence, information and their analyses, its policies, objectives and goals. In effect, the Stages and their component Activities are not linear or rigid. To the contrary; the TSMP provides a flexible process

that is adaptable to the situations faced by management. But it does provide a basic framework that may be used to help management sort out complex situations and guide managers in a reasonably structured way from a point of departure, e.g., purposes, through the two main streams of tactical and strategic thought, decisions and action to performance that will be adapted to changing forces and conditions over time.