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DELL INC. IN 2009[1]

Ken Mark wrote this case under the supervision of Professor Stewart Thornhill solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

INTRODUCTION

On January 6, 2009, a senior executive at Dell Inc. (Dell) was preparing for an investor relations meeting. The company, founded by Michael S. Dell (Michael) in 1983, had originally focused on selling desktop computers. Over the next two decades, Dell grew to be the world's leading supplier of computer systems and was well regarded for its low-cost, direct model that provided it with an edge over competitors. In 2003, in recognition of Dell's increasingly broad product lineup, the company changed its name from Dell Computer Corporation to Dell Inc. To support the fast pace of growth, Dell had opened new manufacturing plants and customer service facilities in Europe, Asia and North America.

In March 2004, after more than two decades at the helm, Michael stepped down as chief executive officer (CEO) to make way for Kevin Rollins, Dell's chief operating officer. Rollins had continued Dell's focus on driving costs out of the company's supply chain and expanding into foreign markets. Starting in 2006, however, Dell had started to lose market share as competitors imitated its innovations. By the start of 2007, as a result of poor financial performance, Rollins resigned as CEO to make way for the return of Michael.

Irregularities in Dell's financial statements had prompted a restatement for the years 2003 to 2006. By mid-2007, Dell had relinquished its market share leadership to a resurgent competitor, Hewlett-Packard (HP). In an attempt to stem market share losses, Dell branched out into selling its personal computers (PCs) through retailers and emphasized the design component in its product lineup. In addition, the company was working on a $3 billion annual cost reduction plan. On September 5, Dell announced that it would sell most or all of its manufacturing facilities within 18 months.

As the senior executive reviewed the historical information on his company and its competitors, he wondered how to best to convey to skeptical investors that Dell's strategy would get the company back on track and its stock price growing again.

[1] *This case has been written on the basis of published sources only. Consequently, the interpretation and perspectives presented in this case are not necessarily those of Dell Inc. or any of its employees.*

DELL

From an early age, Michael Dell had shown interest in entrepreneurship. At age 12, he devised a stamp auction that netted him $1,000. During his last year in high school, he made $18,000 selling papers for the now defunct *Houston Post* and bought his first BMW.[2] In 1983, at the age of 19, as a freshman at the University of Texas at Austin, Michael founded a business selling computer dealers' excess inventory by mail. Because demand was very strong, Michael was able to fund his company's early growth internally, without having to seek venture capital. Within two years, from Michael's dormitory room, Dell Computer achieved $34 million in sales. The company focused on assembling computers for end-users who valued the ability to customize their machines. Dell bypassed intermediaries by going direct to end-users: all products were ordered by telephone, fax or via direct sales. The company grew popular with businesses, which preferred to order computers preconfigured to their specifications.

In October 1987, after the market crash, Dell completed a private placement through Goldman Sachs with the intent of growing the company. Dell raised another $30 million in 1988, earning Michael $18 million. By 1991, sales had reached $800 million. After achieving $2 billion in sales in 1992, Dell suffered its first major setback. The firm was in a liquidity crisis as it rushed to expand, and design flaws appeared in its notebook computers. Recognizing that he needed to build a senior management team, Michael recruited seasoned executives from firms such as Motorola and Apple to handle day-to-day operations.[3] In 1994, Dell ended its four-year attempt to sell computers through retailers. The same year, an informal team at Dell launched Dell.com, loading the site first with technical support information and then with price guides that enabled customers to mix, match and price components.[4]

By 1995, the company had recovered and continued to pull ahead of its competitors. Purchases by governments and large corporations, which generally ordered higher-end, preconfigured systems, pushed the average end-user's price for a Dell computer to $2,600, or 15 to 40 per cent higher than the prices of its closest competitors.[5] Dell achieved this combination of lower costs and higher margins by focusing on high-margin customers instead of initiating price wars and by relying on direct marketing rather than retail sales. Corporate customers were willing to pay more for Dell products because of quantifiable savings. A financial services customer based in Charlotte, North Carolina, described some of these savings:

> For us, having the right technology is do or die. We need to have 50 PCs available at any given time for delivery within 24 hours. But our resellers were never able to provide us with that. (Before we purchased Dell machines), UPS would deliver the PC, and a purchasing guy would open the box, pull out the machine, tag it, power it up, and program its electronic address. Then he would put the PC back in the box and store it in a holding station. Later, another guy would take the PC out of the box again, load in our software and stick it back in the box. Then it would go to someone's desk to be installed. If we were doing this in an office outside of Charlotte, we'd have to send a guy there for two days. Can you believe how much money we were throwing out the window? Dell could tag and address the machines and load our software in its factory. That alone saves us $500,000 a year.[6]

[2] *Rahul Jacob, "The Resurrection of Michael Dell," Fortune, September 18, 1995, p. 117.*
[3] *Andrew E. Serwer, "Michael Dell Turns the PC World Inside Out," Fortune, September 8, 1997, p. 76.*
[4] *Daniel Roth, "Dell's Big New Act," Fortune, December 6, 1999, p. 152.*
[5] *Rahul Jacob, "The Resurrection of Michael Dell," Fortune, September 18, 1995, p. 117.*
[6] *Andy Serwer, "Michael Dell Rocks," Fortune, May 11, 1998, p. 58.*

Dell built each desktop computer to order and carried minimal inventory in its factories, where each computer was made to order, yet the whole process from telephone call to loading onto a delivery truck took just 36 hours. Orders were instantly relayed to one of Dell's plants. Suppliers knew to deliver components within an hour after they were ordered. Components such as computer chips, boards and hard drives were kept in trucks that were backed up into delivery bays 50 feet from the beginning of the production line. After the computers were assembled, they were loaded straight onto trucks, resulting in no inventory of finished goods.[7] This attention to operational efficiency allowed Dell to achieve inventory turns of 15 times a year in 1995, compared with the four to seven turns for manufacturers that sold through resellers and retailers. In an industry where component costs dropped 15 per cent or more annually, the increase in inventory turns translated into a gross margin advantage of 1.8 per cent to 3.3 per cent.[8] Dell filed process patents for the steps it had developed to build, customize and ship a computer. Whereas a standard computer assembly line involved 130 "touches," or interventions, by staff, Dell's efficiencies reduced that number to 60.[9]

By 1996, Dell.com was selling notebook computers, desktop computers and servers. The move to the Internet paid off in more than just increased revenues. It also helped the company cut costs: its sales, general and administrative expenses were reduced from 15 per cent in 1994 to nine per cent in 1996, with the expectation of more cost savings to come. For example, Dell created websites to show each customer the configuration of every computer bought, the price paid and a timeline of when Dell planned to introduce the next version of the computer. Dell's top 33 suppliers — from which Dell purchased 90 per cent of its goods — had a separate valuechain.dell.com website that provided data on how suppliers measured up to Dell standards, the orders they had shipped and the best way to ship.[10]

Although Dell had moved into new markets and products, its desktop and notebook computers still accounted for 83 per cent of its revenue in 1999. To complement hardware sales, Dell diversified its product lineup to include low-cost storage systems and services. In 2000, Dell made its first acquisition designed to reach its objective of being a top supplier of Internet infrastructure products. Dell was already the second-largest major supplier of servers in the world, with its PowerEdge servers accounting for 40 per cent of industry growth in the product category.

At the end of 2000, Dell was the number-one firm in U.S. PCs, worldwide PCs for large and medium businesses and worldwide workstation shipments. Dell had grown at least twice the industry rate in every product category, customer segment and regional market it competed in. It had the best performing stock in the Standard & Poor's index of the 500 largest U.S. corporations in the 1990s. Dell's products won more than 300 awards for dependability and quality. In its annual report, Dell attributed these achievements to its direct business model, its focus on execution and its understanding of customer needs.

Dell's anti-hierarchical, cost-focused corporate culture was evident to customers who visited its head office. Dell's white office buildings were plain and sterile. Inside, workspace was divided into rows of cubicles except for four offices, which were shared interchangeably by two vice-chairs, a director and Michael. The hallways were mostly devoid of art. A senior vice-president previously with Motorola recalled finding the "411" feature for directory assistance blocked because it was too expensive. She described her health insurance card as:

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[7] Andrew E. Serwer, "Michael Dell Turns the PC World Inside Out," Fortune, September 8, 1997, p. 76.
[8] Rahul Jacob, "The Resurrection of Michael Dell," Fortune, September 18, 1995, p. 117.
[9] Carlos Grande, "Facing up to the New Computer World," Financial Times, February 16, 2001, FT.com, accessed October 10, 2008.
[10] Daniel Roth, "Dell's Big New Act," Fortune, December 6, 1999, p. 152.

> barely cardboard. There's no such thing as a free lunch. The first week, I asked my assistant to lunch. I didn't realize it was going on my personal credit card. I mean, just about everything goes on my personal credit card.

Dell's hiring practices were designed to weed out anyone who would slow the company down. Newcomers were told they had to be comfortable with a high level of ambiguity. Long-time executives were hard-pressed to draw an organization chart: to make the company more nimble, departments were divided up when they became too big.[11]

Despite poor economic conditions following the end of the Internet bubble, Dell continued its growth in 2001, becoming the number-one firm in global market share for the first time in its history. The company was growing beyond its reliance on desktop computers: sales of server and storage systems, workstations, notebook computers, services and peripheral products represented more than half of Dell's revenues and two-thirds of its profit. Dell targeted market segments where profit margins were high and product standards had stabilized. According to Mort Topfer, a vice-chair formerly with Dell:

> We know what we are and what we're not. We're a really superb product integrator. We're a tremendously good sales-and-logistics company. We're not the developer of innovative technology.

A Dell mantra was that today's technology was tomorrow's commodity. Dell waited until the cost of that technology fell low enough for it to be put into computers at state-of-the-art factories and then sold direct at a cheap price, which allowed the company to gain market share.[12]

Dell continued to have the industry's lowest cost structure. Because systems were built only after they were ordered, inventory was kept to a minimum, allowing Dell to pass on to its customers any reductions in component costs. In 2001, Dell held an average five days of inventory, a record low for the firm. Customers continued to rank Dell number one in service and customer satisfaction in leading industry surveys. Interactions between Dell salespeople and their customers seemed to focus on data, not on relationship building. As a result, not all customers at Dell were treated equally. Dell's data enabled it to know how profitable each customer was. More profitable customers received better treatment, such as special pricing or enhanced customer service. Dell even used sales and service data to identify unprofitable customer accounts to be dropped in the future.

In 2002, industry demand for computer systems and services declined due to worldwide economic weakness. Dell's revenues fell from $31.9 billion in 2001 to $31.2 billion in 2002. Yet, Dell held on to its number-one market share position globally. Contributing to this hold on the top spot was Dell's standing as the leading server supplier in the United States with a 27 per cent gain in customer demand; it sold twice as much storage capacity in 2002 than in 2001; and it further reduced its days of inventory to four days. Dell Direct Store stand-alone kiosks, staffed by Dell employees, began appearing in U.S. shopping malls. In April 2002, in the midst of a slumping market, Dell set an internal goal to double sales to $60 billion by 2007.

Dell continued to set records in 2003 as shipments, revenue and earnings per share increased at double-digit rates. To ensure that it continued to deliver strong results, Dell invested in leadership training programs. Dell's growth and expansion in newer markets resulted in 35 per cent of Dell's worldwide team

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[11] Betsy Morris et al., "Can Michael Dell Escape the Box?" Fortune, October 16, 2000, p. 92.
[12] Betsy Morris et al., "Can Michael Dell Escape the Box?" Fortune, October 16, 2000, p. 92.

being new to the company in the past two years. Dell emphasizes its success was based on a commitment to "customers, colleagues, direct relationships, global citizenship and winning with integrity."[13]

In 2003, acknowledging its expansion into other hardware products, Dell dropped the word "computer" from its company name. Kevin Rollins, president and chief operating officer, stated that Dell aimed for 30 to 40 per cent of the global market for all the products it made. The company sought out the biggest "profit pools," picked those with close "adjacencies" to those markets Dell already served to reduce the risk of wandering into unknown territory and applied its core competencies to enter the market. According to Rollins, "Our goal is to shrink the profit pool and take the biggest slice. Our gross margins are in the 18 to 19 per cent range: we don't need 40 per cent."[14]

Dell brought its operating philosophy to its service business as well, which generated $4 billion in 2002. Michael stated:

> The fact is that you can put some mystical notion on lots of these services, but if you look at them in detail, look at what's really going on, you'll find that many of the things that [services people] are doing are highly repeatable. We are in effect commoditizing services. There is no reason why this can't occur.[15]

In 2004, Dell was the world's leading supplier of computer systems for the second consecutive year. In the U.S. market, it had been the leading supplier for the past five years. Its business was profitable in every geographic market, customer segment and product category. Its product shipments grew 26 per cent, three times the average of other companies. Dell coined the term "the Dell Effect" to explain the increase in customer value as a result of Dell entering a new product category: a drop in price and an increase in value. Dell identified four strategic initiatives that would help the company continue to grow: driving global growth, attaining product leadership, continuously improving the customer experience and enhancing Dell's winning culture. Product leadership was defined as "bringing to market exactly what customers want, when they want it, for the best value in the industry."[16] Dell extended its product line-up to include inkjet printers, digital music players, LCD television and computer monitors, handheld computers and digital projectors.

In 2005, Dell was well ahead of its plan to reach $60 billion in sales by the end of 2007. Thus, a new goal — reaching $80 billion in sales by 2009 — was set. The company seemed to be expanding beyond PCs as evidenced by the non-PC products, such as servers, storage systems, services and printers, which accounted for more than half of its revenue and an even greater portion of its operating income.

In 2006, manufacturing plants and customer service facilities were opened in Germany, Scotland, Ireland, India, El Salvador, Canada, Japan, China, the Philippines and the United States. Dell continued to attribute its success to its direct model: direct customer relationships, information over inventory, world-class manufacturing, superior customer information and execution excellence. In 2006, Dell stopped selling digital music players.

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[13] Dell 2003 Annual Report, p.6.
[14] Richard Waters, "Dell Aims to Stretch Its Way of Business," Financial Times, November 12, 2003, FT.com, accessed October 10, 2008.
[15] Fiona Harvey, "Michael Dell of Dell Computer," Financial Times, August 4, 2003, FT.com, accessed October 10, 2008
[16] Dell 2004 Annual Report, p. 3.

Dell Underperforms

Starting in 2006, Dell began losing share in the U.S. consumer segment to HP, Apple and other vendors. Analysts attributed Dell's share losses to a number of factors, including Dell's own internal issues (e.g. exiting the low-end of the market), growth of units sold through retail and competitive pressure from HP and Apple. Another viewpoint suggested that improving technology and decreasing cost reduced the need for customization. Many components that cost extra in the past now came as standard-issue items in retail PCs. Prices for PCs had dropped by half since the late 1990s. Dell was also losing market share as competitors imitated its supply chain innovations and lowered their prices.[17]

Michael Dell Returns as CEO

On January 31, 2007, after months of poor financial performance and negative news coverage, Kevin Rollins resigned as CEO, making way for Michael Dell to return to his former role as CEO. In addition to sluggish sales and profit, Dell was under investigation by the Securities and Exchange Commission for accounting irregularities that related to the timing and recognition of income and expenses. An investigation that had begun in August 2006 identified evidence that certain adjustments, typically at the close of the quarter, appeared to have been motivated by financial targets. The investigation also found that, in some cases, business unit personnel had not provided complete information to corporate headquarters and, in other instances, purposefully incorrect or incomplete information about these activities had been provided to internal or external auditors. To correct the irregularities, Dell restated its financial statements from 2003 to 2006. The change to net revenue for each annual period led to a reduction of less than one per cent of the previously reported revenue for the period. The cumulative change to net income from 2003 to 2006 was a reduction of between $50 million and $150 million (compared with previously reported net income of more than $12 billion for the restatement period). The adjustments did not have a material effect on the current balance sheet and did not have a material effect on cash flows.[18]

In 2007, Dell lost its lead as the world's top personal computer maker to Hewlett-Packard. After the first quarter of 2007, Dell's global market share of PC shipments had dropped to 15.2 per cent from 18.2 per cent a year earlier. During the same period, Hewlett-Packard's PC shipments had risen from 16.5 per cent to 19.1 per cent. The consumer market, it seemed, had changed significantly in the past three years, and Dell was trying to catch up.

Dell Adds Retail as a New Channel and Expands Its Service Offering

In June 2007, Dell began selling two models of its low-end Dimension personal computers in 3,500 Wal-Mart stores in the United States, Canada and Puerto Rico. Michael announced the new retail strategy to employees by noting that "the direct model has been a revolution, but is not a religion."[19] Speaking to a reporter, Bob Pearson, a spokesperson for Dell, added that the Wal-Mart relationship was not a pilot program. Rather, it was the "first step in our global retail strategy rollout. Stay tuned. There will definitely be more, and it will be global."[20] Dell had experimented with retail before. In the early 1990s, it had sold

[17] *Chris Nuttall and Richard Waters, "Rollins' Rate Sealed by Falling Margins," Financial Times, February 2, 2007, p. 24.*
[18] *"Dell Independent Investigation Completed; Will Restate Financials," http://www.dell.com/content/topics/global.aspx/corp/pressoffice/en/2007/2007_08_16_rr_000?c=us&l=en&s=corp, accessed September 1, 2008.*
[19] *Erica Ogg, "What Wal-Mart Means to Dell," CNET News.com, May 24, 2007.*
[20] *Patrick Seitz, "Hmm, Hell Can Freeze Over," Investor's Business Daily, May 25, 2007, p. A04.*

computers through a number of mass merchandisers, such as Best Buy, Costco and Sam's Club, but it had ended that practice in 1994, citing low profit margins.[21]

On the day of Dell's announcement, its shares closed down 1.4 per cent to US$25.89 per share. Dell's share price had never recovered since its fall from an all-time high of US$139.88 per share reached in February 1998 (see Exhibit 1 for Dell's historical share prices). Dell no longer offered detailed financial guidance — Michael called the earnings promises a trap that "caused us to, every turn of the crank, think a little bit more short-term until ultimately we sort of drove ourselves off the cliff"[22] An analyst estimated that, in 2007, Dell's consumer business was operating at breakeven, whereas profit margins at competitors' consumer segments were 5.0 per cent for HP, 3.2 per cent for Lenovo and 2.1 per cent for Acer.[23]

Observers' comments included the following:

- "We've been telling Dell for years that they need to explore a retail strategy," said an analyst from Forrester Research. "They need to learn about how retail exposes your product to a variety of customers."[24]
- "It smacks of a little desperation," said Tim Ghriskey, chief investment officer for Solaris Asset Management, a tech industry investor.[25]

By December 2007, Dell had announced that its PCs would be carried in further 6,500 locations, following partnerships with Staples, Best Buy, Gome, Carrefour, Bic Camera and Carphone Warehouse. The intention was to develop, in each of the 20 countries in which it competed, one to two retail partnerships. In addition to its retail strategy, Dell started to sell through "re-sellers," outside companies that designed and installed computer systems for small businesses and corporate clients.[26]

Dell stepped up its acquisitions of complementary firms (see Exhibit 2).

Changes to Manufacturing

In conjunction with its new focus on expanding beyond direct sales, Dell started to modify its manufacturing model to support the retail effort. Michael recruited Michael Cannon, the chief executive of Solectron, a leading contract manufacturer, to revamp Dell's supply chain.[27] Dell shifted its focus to make high-volume products, sacrificing configurability and time-to-market.

Dell was targeting $3 billion in annual cost savings by 2011 through two cost-saving initiatives: "Reduce COGS" (cost of goods sold); and "Decrease Opex" (operating expenses). Seeking a reduction in COGS, Dell would optimize its global manufacturing network, redesign its supply chain, cut development time, design for customer requirements and reduce complexity. To decrease operating expenses, Dell would reduce compensation and benefit costs, decrease headcount, improve productivity and tighten discretionary spend.

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[21] Matt Richtel, "Coming Soon to Wal-Mart: 2 Low-End PCs from Dell," The New York Times, May 25, 2007, p. 4.
[22] Jon Fortt, "Dell Bleeds from Its Own Price Cuts," http://bigtech.blogs.fortune.cnn.com/2008/08/28/dell-bleeds-from-its-own-price-cuts/, accessed September 1, 2008.
[23] Chris Whitmore and Joakim Mahlberg, "Enterprise Edge #140," Deutsche Bank, June 2, 2008, p. 5.
[24] Peter Svensson, "Dell Opts to Sell Its PCs at Wal-Mart," The Seattle Times, May 25, 2007, p. D1.
[25] Loren Steffy, "Wal-Mart Isn't the Answer to Dell's Myriad Problems," Houston Chronicle, May 30, 2007, p. 1.
[26] Kevin Allison, "Dell's Long View Irks Investors," Financial Times, August 31, 2008, FT.com, accessed October 10, 2008
[27] Kevin Allison, "Dell Considers Plan to Outsource Production and Sell Its Factories," Financial Times, September 6, 2008, p. 19.

Of the $3 billion, 25 per cent, or $750 million would come from personnel reductions and the rest would come from a combination of improved product design, development and manufacturing.

Full system manufacturing would be outsourced to partners located in low-cost countries such as China (see Exhibit 3 for Dell's 2007 manufacturing footprint). These partners would build computers to retailers' forecasts, directly shipping full systems to the retailer (see Exhibit 4 for an analyst's estimation of the cost savings).

On September 5, 2008, the *Wall Street Journal* reported that Dell had approached two contract manufacturers to take over its plants. The report suggested that the discussions were at an early stage but that the move could help Dell cut costs.[28]

By the end of fiscal 2008, Dell PCs were being sold in more than 12,000 retail outlets; however, the Dell Direct Store kiosks in the United States were closed. The company also introduced a redesigned PC named "XPS One." It was "perhaps the most beautiful Dell ever, (reflecting) a sea of change in design we're bringing to customers," said Michael. "This all-in-one premium consumer electronics system offers the best in style, entertainment, design and features."[29] See Exhibits 5 and 6 for Dell's financial statements.

During the company's fiscal 2008 review, Michael stated that Dell's strategy would be to focus both on becoming more competitive by reducing costs and on growing the company in the consumer, enterprise and emerging markets. To ensure that the focus on products that appealed to consumers was not lost, Dell separated its product design department into consumer and commercial teams.

COMPETITION

In the second quarter of 2008, HP was the top global PC vendor with an 18.9 per cent share of units. Dell had 16.4 per cent of the market, and key competitors Acer Inc., Apple, Inc. and Lenovo had 9.5 per cent, 3.5 per cent and 7.9 per cent respectively.[30]

Acer Inc.

Acer Inc. (Acer), previously named Multitech, was founded in 1976 by seven Taiwanese entrepreneurs who launched the company as a distributor of electronic parts and a consultant in the use of microprocessor technologies. Acer grew in size when it purchased Texas Instruments' notebook division in 1997. Acer outsourced its PC production to contract manufacturers; however, in 1999, it spun off its manufacturing arm, Wistron Corp., both to focus on Acer-brand PCs and to avoid conflicts of interest with its contract manufacturing services.[31]

Acer strengthened its U.S. presence by purchasing Gateway Inc. in 2007 and Packard Bell in 2008. In 2008, Acer was a Taiwanese multinational electronics manufacturer and the third-largest computer manufacturer in the world after Hewlett-Packard and Dell. Its product lineup included desktop and

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[28] *Kevin Allison, "Dell Considers Plan to Outsource Production and Sell Its Factories," Financial Times, September 6, 2008, p. 19.*
[29] *"A Focus on Growth Priorities," Fiscal 2008 in Review, http://www.dell.com/content/topics/global.aspx/about_dell/investors/financials/index?~ck=ln&c=us&l=en&lnki=0&s=corp, accessed August 30, 2008.*
[30] *Chris Whitmore and Joakim Mahlberg, Deutsche Bank Analyst Report, "Enterprise Edge," August 4, 2008, p. 3.*
[31] *Bear, Stearns Analysit Report on, "Acer Inc.," October 9, 2006, p. 15.*

notebook PCs, personal digital assistants (PDAs), servers and storage, peripherals, and e-business services for business, government, education and home users.[32]

Acer, which sold its products mainly through retail channels, had three branded offerings. Its Acer brand competed on price, typically offering its products at less than US$1,200.[33] The company achieved these lower prices by focusing on cost management both in its manufacturing operations and in the Linux operating system it chose to install on notebooks. Acer's Gateway, Packard Bell and eMachine brands were positioned in the medium to high-end range. According to Acer, the decision to choose Linux's operating system over Microsoft's reduced costs, decreased computer boot-up to 15 seconds and extended battery life from five to seven hours.[34]

Apple, Inc.

Founded in 1976, Apple Inc. (Apple) designed, manufactured and marketed desktop and notebook computers, portable digital music players, mobile phones, software, services, peripherals and networking solutions. Apple targeted the premium consumer (75 per cent of sales), the education sector (10 to 15 per cent of sales) and creative professional market (10 to 15 per cent of sales) with its lineup of stylish desktop and notebook computers.[35] For example, in the consumer desktop market, Apple's lineup did not offer a low-cost model despite the 83 per cent of total consumer market units being accounted for in the sub-$1,000 segment. Similarly, in the consumer notebook market, Apple was largely absent from the sub-$1,200 segments of the market, which excluded it from 70 per cent of the total market.[36] After experimenting with failed consumer products, such as digital cameras, portable CD audio players, speakers, video consoles and TV appliances, Apple launched the iMac in 1998, returning the company to profitability for the first time since 1993. In May 2001, Apple opened the first Apple retail stores in Virginia and California. The same year, it introduced the iPod portable digital audio player, of which 100 million units were sold by 2008.

Apple's PC lineup included the iMac and the MacBook Air, a popular, ultra-thin notebook introduced in January 2008. Apple products were available at mass merchandisers, specialty stores and through the company's 200-store network of Apple retail stores. Apple was known in the industry for its aesthetic design and distinctive advertising campaigns.[37] On the strength of its design, Apple achieved, from its lineup of computers, gross margins in the 30 per cent range, exceeding the PC industry average by more than 1,000 basis points.[38]

Apple generated half its revenue directly through its retail stores, direct sales force and online stores. The balance of sales was generated from third-party wholesalers and resellers. The company operated 208 retail locations and planned to increase the number of locations to 242 by the end of fiscal 2008. Apple's computers were sold at a total of approximately 10,000 retail locations worldwide.[39] Apple's key differentiator was its ability to design and market a total product. It was the only company in the computer industry to design its own operating system, hardware, applications and related services. The result was

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[32] Wikipedia, Entry for "Acer Inc.," http://en.wikipedia.org/wiki/Acer_Inc., accessed September 9, 2008.
[33] SinoPac Securities Analyst Report on, "Acer," May 22, 2008, p. 5.
[34] Iain Thomson, "Acer Bets Big on Linus," http://www.vnunet.com/vnunet/news/2218172/acer-pushes-linux-hard, accessed October 6, 2008.
[35] Yair Reiner and Michael Suh, "Apple Inc.," Oppenheimer, May 21, 2008, p. 9.
[36] Bill Shope et al., "Apple Inc.," Credit Suisse, August 7, 2008, p. 20.
[37] Anne Fisher, "America's Most Admired Companies," Fortune, March 17, 2008, pp. 65–67.
[38] Bill Shope et al., "Apple Inc.," Credit Suisse, August 7, 2008, p. 19.
[39] Yair Reiner and Michael Suh, "Apple Inc.," Oppenheimer, May 21, 2008, pp. 12–13.

often a product that was better integrated, easier to use, and more aesthetically consistent than its competitors'. Since the launch of its distinctly designed iMac computers in 1998, Apple had tried to regain its footing in the PC industry by working with developers, investing in branding campaigns and offering Windows users in-depth Mac training. [40]

These efforts seemed to have little impact until, in 2005, Apple announced its intent to switch to the Intel platform from the IBM PowerPC architecture. By embracing the industry standard, Apple attracted a wider array of PC-centric software developers. Second, Apple launched Boot Camp in 2006, a software utility that allowed Mac users to run the Windows operating system on Mac hardware. Third, it enabled support for Windows through third-party virtualization software. These three efforts reduced the perceived switching costs for Windows users.[41] Apple's products were mainly produced by Taiwanese contract manufacturers, such as Hon Hai Precision Industries, Quanta and Pegatron.[42]

Hewlett-Packard

Hewlett-Packard (HP) grew from its roots as an engineering and medical company to an information technology corporation. In 1999, HP spun off its engineering and medical businesses as Agilent. In 2002, HP merged with Compaq Computers, becoming a major player in desktops, notebooks and servers.

Mark Hurd, HP's current CEO, refocused the company away from building and marketing the PC as a commodity item. Besides making PCs more attractive to consumers, HP included user-friendly features, such as the ability to check email and appointments without having to wait for the machine to boot up. HP's marketing team pitched their PCs as a personal reflection of consumers' desires and needs. Using the tagline, "The computer is personal again," HP developed advertisements featuring entertainers such as Shawn "Jay-Z" Carter.[43] HP's Personal Systems Group (PSG) included sales of PCs, handheld devices, digital entertainment systems, calculators and related accessories, software and services. Desktops and notebooks represented more than 90 per cent of PSG's revenue and gross profit.[44] In 2007, PSG represented approximately 35 per cent of HP's revenues and 18.3 per cent of operating profits.

HP branded its PCs based on the customer segment served. The company's HP Compaq products were sold into the commercial market, while its HP Pavilion and Compaq Presario products targeted consumers. In the consumer segment, the HP Pavilion line was the high-end brand, positioned above the Compaq Presario products. Analysts expected HP's PSG group to maintain operating margins of between 5.1 and 5.4 per cent from 2008 to 2010. HP's PCs were sold through a retail network of approximately 80,000 stores. In PCs, HP's large presence in the consumer retail market for notebooks positioned the company to take advantage of industry growth in the shift to mobility. In addition, the majority of HP's PC growth in recent years was a result of sales through its indirect distribution channel — 70,000 third-party resellers who sold HP services as part of their solutions.[45,46]

[40] Yair Reiner and Michael Suh, "Apple Inc.," Oppenheimer, May 21, 2008, p. 9.
[41] Bill Shope et al., "Apple Inc.," Credit Suisse, August 7, 2008, p. 25.
[42] Yair Reiner and Michael Suh, "Apple Inc.," Oppenheimer, May 21, 2008, p. 22.
43 "BusinessWeek's Top Global Brands – HP Stages a Turnaround," The Digital Mindset Blog, http://www.communities.hp.com/online/blogs/kintz/archive/2007/07/30/HPPost4045.aspx, accessed September 1, 2008.
[44] Jesse Tortora, "Hewlett-Packard Co.," Prudential Equity Group, LLC, October 19, 2006 p. 17.
[45] Bill Shope et al., "Hewlett-Packard," Credit Suisse, August 7, 2008, p. 5.
[46] "HP Services Partners," http://h20219.www2.hp.com/services/cache/78952-0-0-225-121.html, accessed September 22, 2008.

HP outsourced most of its manufacturing to contract manufacturers, including Flextronics, Celestica, Solectron, Sanmina and Jabil Curcuit for desktop PCs and servers, and Taiwan-based original design manufacturers (ODMs) Quanta, Inventec, Wistron and Compal for notebook PCs. HP utilized Intel and AMD processors for the company's desktop and notebook product lines.[47] Hard disk drives were supplied by Seagate and Western Digital. HP relied on Intel, AMD, Canon and Hitachi for much of its research and development (R&D). Given that the company outsourced the bulk of its manufacturing and R&D, HP could manage costs and avoid significant margin decreases in a slowing demand environment.[48] See Exhibit 7 for an overview of HP's supply chain.

From 2004 to 2006, PSG's margin improved by 300 basis points, a result of increased leverage with Intel as HP started to use AMD processes (150 basis points); supply chain improvements and leveraging of purchasing across divisions to secure lower pricing on components such as hard disk drives, panels and memory (100 basis points) and a broader selection of notebooks (50 basis points).[49] To enhance its service business, HP announced in May 2008 that it was purchasing EDS for $13.9 billion. On one hand, EDS enhanced HP's offerings in IT and applications outsourcing. There was also the potential for significant cost synergies, or shifting general & administrative costs offshore. In addition, synergies would come from improvements in supply chain, real estate, and process improvement. On the other hand, analysts believed that turning around EDS would be a distraction to HP.[50]

Lenovo Group Limited

Lenovo Group Limited (Lenovo) was the largest PC manufacturer in China and the fourth-largest PC manufacturer worldwide after HP, Dell and Acer. Formerly named Legend Group Ltd. and New Technology Developer Incorporated, the company was restructured and separated into two entities. One of the entities, Lenovo, became a PC manufacturer. In 2005, Lenovo purchased IBM's PC Division for $1.27 billion and, post-transaction, IBM held an 18.9 per cent share in Lenovo. For 18 months after the transaction, Lenovo had the right to use the IBM brand name, and it owned the "Think" brand. Following the transaction, Lenovo hired six key executives from Dell with supply chain expertise. One of the Dell executives, William Amelio, became Lenovo's new president and chief executive officer.

A key change for Lenovo, after the IBM PC Division purchase, was that notebook computer sales became the company's largest contributor, accounting for about half of revenues in 2006, a striking contrast from late 2004, when Lenovo did not sell notebooks. More than 50 per cent of Lenovo's revenues were generated from the Asia Pacific market, where PC sales growth was twice the global average.[51] Lenovo sold computers to large businesses and to consumers via both online sales and distribution to retailers. Lenovo's global advertising operations were centralized in Bangalore, India, to leverage the low-cost skilled labor base in the region.[52] Logistics, sales and warranty services were brought in house.[53] To maintain the quality and look of its ThinkPad computers, Lenovo's in-house manufacturing was supported by a Japan-based research and development center.[54]

[47] Jesse Tortora, "Hewlett-Packard Co.," Prudential Equity Group, LLC, October 19, 2006, p. 17.
[48] Jesse Tortora, "Hewlett-Packard Co.," Prudential Equity Group, LLC, October 19, 2006, p. 26.
[49] Jesse Tortora, "Hewlett-Packard Co.," Prudential Equity Group, LLC, October 19, 2006, p. 30.
[50] Bill Shope et al., "Hewlett-Packard," Credit Suisse, August 7, 2008, p, 15.
[51] Manish Nigam and Venugopal Garre, "Lenovo Group," Credit Suisse, July 31, 2006, p. 6.
[52] David Hannon, "Lenovo Does Global Supply Chain Right," http://www.purchasing.com/article/CA6489110.html, accessed September 22, 2008.
[53] Leon Chik, "Lenovo Group," HSBC, February 1, 2007, p. 4.
[54] Leon Chik, "Lenovo Group," HSBC, February 1, 2007, p. 12.

Three-quarters of Lenovo's manufacturing took place at its 10 plants around the world. Lenovo had primary PC manufacturing plants in China, the United States, Mexico, Brazil, Scotland, Hungary, India, Malaysia, Japan and Australia. If deemed necessary, Lenovo would contract manufacturers on a temporary basis until the production could be transferred to a Lenovo plant. Analysts expected that cost savings from procurement and reductions in sales, general and administrative expenses would boost operating margins from 1.1 per cent in 2006 to 3.4 per cent in 2011.[55]

PREPARING FOR THE INVESTORS' MEETING

Like Steve Jobs's return to Apple Inc., Michael Dell's return to Dell had sparked significant changes to its business with the objective of improving its stock price. However, a year-and-a-half later, the market had not responded favorably to Michael's return. During Dell's fiscal 2008 review, Michael acknowledged that, despite the growth in revenue in the past 10 years, Dell had lost its way:

> It is fair to say that as we got to the end of that 10-year period, our strategy wasn't working as well as it had previously. Moreover, as we evolved we lost focus and allowed our cost structure to become non-competitive[56].

Michael seemed to be optimistic, however, that the turnaround effort was making progress:

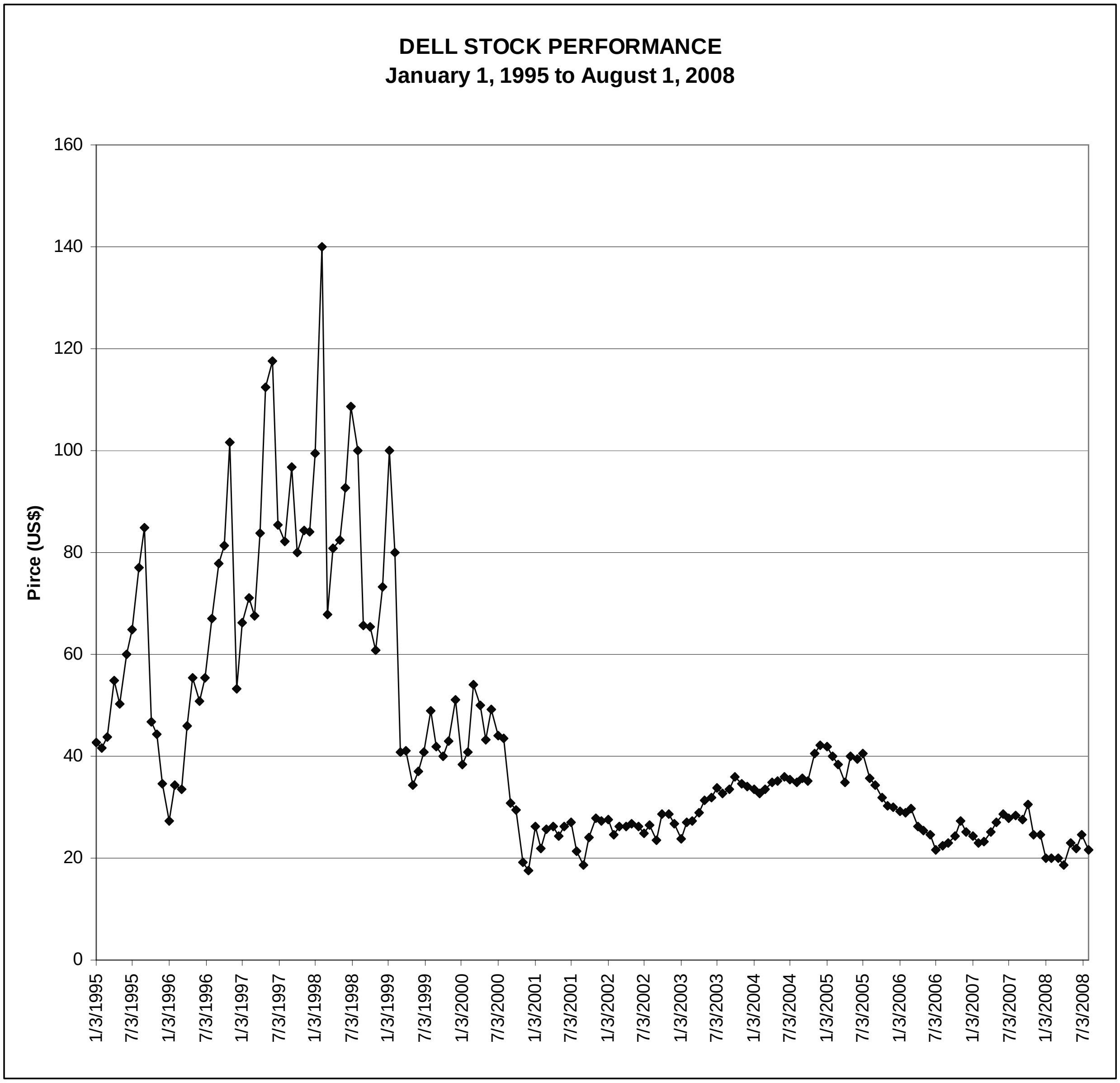
> Since our inception, Dell has the availability of technology for millions of businesses and enabled millions of people to get online for the first time. Now, more than ever, we are advancing this mission through new ways of listening to and reaching customers, and by expanding and customizing our product and service portfolios. Dell is evolving at one of the most exciting points in our industry's history. Our team has a clear focus on what we must do to increase our growth and competitiveness. We are committed to sustaining and building on the gains we made in fiscal 2008.[57]

To prepare for the investors' meeting, the senior executive started to assemble detailed speaking notes that described Dell's competitive advantage, the evolution of its business model and its prospects for the future.

[55] Leon Chik, "Lenovo Group," HSBC, September 13, 2006, p. 22.
[56] http://www.dell.com/content/topics/global.aspx/about_dell/investors/financials/index? c=us&l=en&s=corp, accessed October 10, 2008.
[57] "A Clear Focus and Inspiration," Fiscal 2008 in Review, http://www.dell.com/content/topics/global.aspx/about_dell/investors/financials/index?c=us&l=en&s=corp, accessed September 20, 2008.

Exhibit 1

DELL INC.'S HISTORICAL SHARE PRICES



Source: ca.finance.yahoo.com, accessed August 15, 2008.

Exhibit 2

ACQUISITIONS OF COMPLEMENTARY FIRMS

To expand its menu of services, Dell stepped up its acquisitions of complementary firms:

Date	**Company**	**Product or Service**
May 2006	Alienware	High-end computers targeted at the gaming market
November 2006	ACS	IT services provider focusing on Microsoft, VMware and RSA Security
June 2007	Silverback Technologies	Remote management services sold through resellers
August 2007	Zing	Wi-Fi music players
August 2007	ASAP	IT infrastructure management services
November 2007	Everdream	Remote management services sold through resellers
November 2007	EqualLogic	Storage area network management services
February 2008	MessageOne	Email continuity, compliance, archiving, and disaster recovery

Exhibit 3

DELL INC.'S MANUFACTURING, DISTRIBUTION AND DESIGN FACILITIES

Americas Properties		**Owned**	**Leased**
Description	**Principal Locations**	**(square feet)**	**(square feet)**
Headquarters	Round Rock, Texas	2.1 million	
Business Centers	• Canada – Edmonton and Ottawa • El Salvador – San Salvador • Oklahoma – Oklahoma City • Panama – Panama City • Tennessee – Nashville • Texas – Austin and Round Rock	1.1 million	1.9 million
Manufacturing and Distribution	Brazil – Hortolândia • Florida – Miami (Alienware) • North Carolina – Winston-Salem • Ohio – West Chester • Tennessee – Lebanon and Nashville • Texas – Austin	2.9 million	700,000
Design Centers	Texas – Austin and Round Rock	700,000	100,000

Europe, Middle East and Africa Properties		Owned	Leased
Description	Principal Locations	(square feet)	(square feet)
Headquarters	Bracknell, England	100,000	100,000
Business Centers	• Germany – Halle • France – Montpellier • Ireland – Dublin and Limerick • Morocco – Casablanca • Slovakia – Bratislava	400,000	1.5 million
Manufacturing and Distribution	• Limerick and Athlone (Alienware) • Poland – Lodz	1.0 million	

Asia Pacific and Japan Properties		Owned	Leased
Description	Principal Locations	(square feet)	(square feet)
Headquarters	Singapore		50,000
Business Centers	• China – Dalian and Xiamen • India – Bangalore, Gurgaon, Hyderabad, and Mohali • Japan – Kawasaki • Malaysia – Penang and Kuala Lumpur • Philippines – Metro Manila	300,000	3.2 million
Manufacturing and Distribution	• China – Xiamen • Malaysia – Penang • India – Chennai	1.1 million	150,000
Design Centers	• China – Shanghai • India – Bangalore • Singapore • Taiwan – Taipei		500,000

Source: Dell 2008 10-K filings.

Exhibit 4

COST SAVINGS FROM MANUFACTURING IN CHINA

	Typical Cost Structure for PC Manufacturers	Savings from Manufacturing in China	Total Cost Savings
Materials	75%	15%	11.3%
Labour (Direct/Indirect)	12%	75%	9.0%
Overhead/Equipment	7%	25%	1.8%
Other	6%	15%	0.9%
Total	**100%**		22.9%

Source: Deutsche Bank estimates and company reports

Exhibit 5

DELL INC,'S BALANCE SHEETS, 1996 TO 2008

	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996
ASSETS													
Total current assets	19,880,000	19,939,000	17,706,000	16,897,000	10,633,000	8,924,000	7,877,000	9,491,000	7,681,000	6,339,000	3,912,000	2,747,000	1,957,000
Total long-term assets	7,681,000	5,696,000	5,403,000	6,318,000	8,678,000	6,546,000	5,658,000	3,944,000	3,790,000	538,000	356,000	246,000	191,000
Total assets	27,561,000	25,635,000	23,109,000	23,215,000	19,311,000	15,470,000	13,535,000	13,435,000	11,471,000	6,877,000	4,268,000	2,993,000	2,148,000
LIABILITIES													
Total current liabilties	18,526,000	17,791,000	15,927,000	14,136,000	10,896,000	8,933,000	7,519,000	6,543,000	5,192,000	3,695,000	2,697,000	1,658,000	939,000
Total long-term liabilities	5,206,000	3,405,000	3,053,000	2,594,000	2,135,000	1,664,000	1,322,000	1,270,000	971,000	861,000	278,000	250,000	236,000
Total liabilities	23,732,000	21,196,000	18,980,000	16,730,000	13,031,000	10,597,000	8,841,000	7,813,000	6,163,000	4,556,000	2,975,000	1,908,000	1,175,000
SHAREHOLDERS' EQUITY													
Total equity	3,829,000	4,439,000	4,129,000	6,485,000	6,280,000	4,873,000	4,694,000	5,622,000	5,308,000	2,321,000	1,293,000	1,085,000	973,000
Total liabilities & equity	27,561,000	25,635,000	23,109,000	23,215,000	19,311,000	15,470,000	13,535,000	13,435,000	11,471,000	6,877,000	4,268,000	2,993,000	2,148,000

Source: Mergentonline, SEC filings.

Exhibit 6

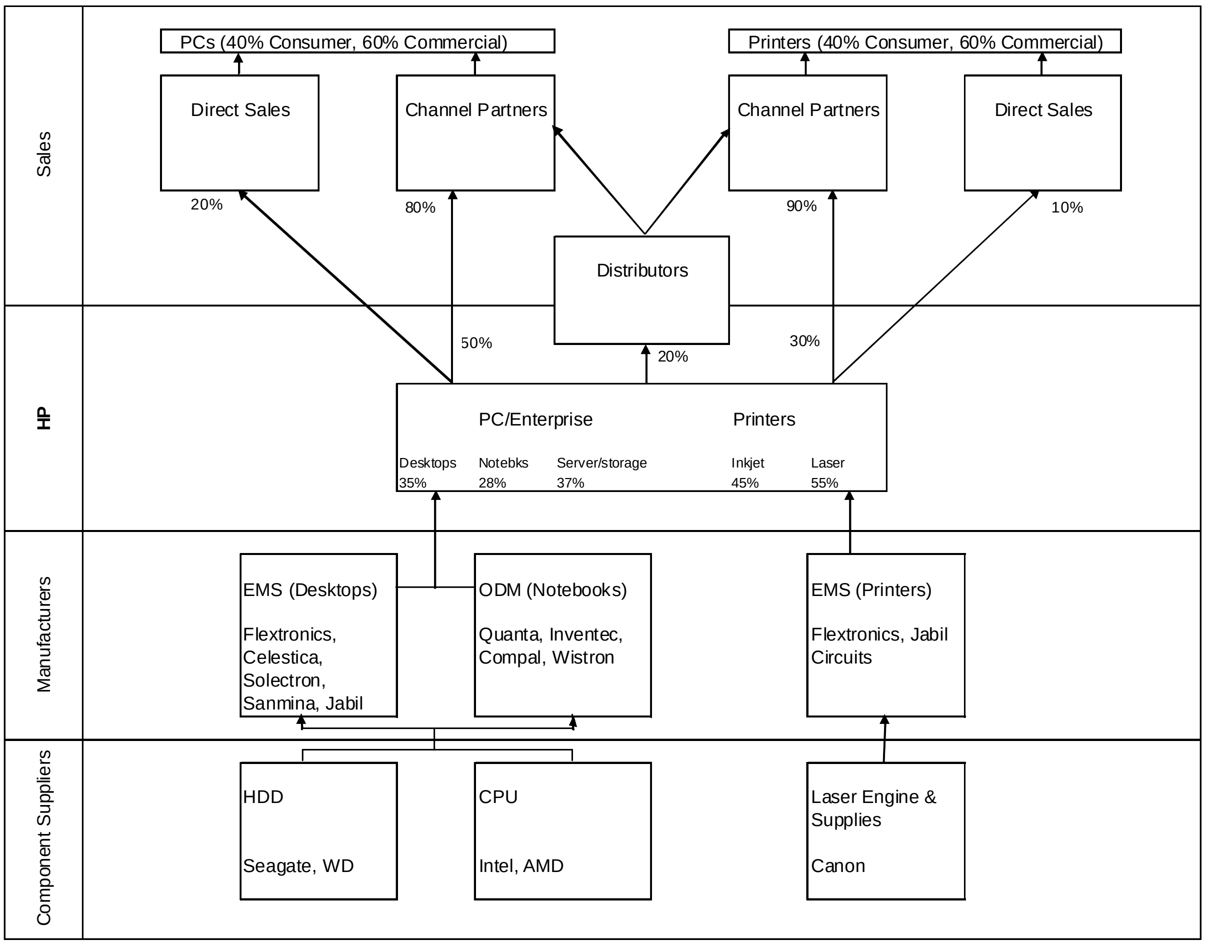
DELL INC.'S INCOME STATEMENTS, 1996 TO 2008

	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996
Revenue	61,133,000	57,420,000	55,908,000	49,205,000	41,444,000	35,404,000	31,168,000	31,888,000	25,265,000	18,243,000	12,327,000	7,759,000	5,296,000
Cost of goods sold	49,462,000	47,904,000	45,958,000	40,190,000	33,892,000	29,055,000	25,661,000	25,445,000	20,047,000	14,137,000	9,605,000	6,093,000	4,229,000
Gross profit	11,671,000	9,516,000	9,950,000	9,015,000	7,552,000	6,349,000	5,507,000	6,443,000	5,218,000	4,106,000	2,722,000	1,666,000	1,067,000
Selling, general & administrative	7,538,000	5,948,000	5,140,000	4,298,000	3,544,000	3,050,000	2,784,000	3,193,000	2,387,000	1,788,000	1,202,000	826,000	595,000
Other operating expenses	86,000	27,000	70,000	129,000	201,000	244,000	695,000	347,000	412,000	169,000	137,000	79,000	57,000
Depreciation & amortization	607,000	471,000	393,000	334,000	263,000	211,000	239,000	240,000	156,000	103,000	67,000	47,000	38,000
Operating income	3,440,000	3,070,000	4,347,000	4,254,000	3,544,000	2,844,000	1,789,000	2,663,000	2,263,000	2,046,000	1,316,000	714,000	377,000
Net income	2,947,000	2,583,000	3,572,000	3,043,000	2,645,000	2,122,000	1,246,000	2,177,000	1,666,000	1,460,000	944,000	518,000	272,000

Source: Mergentonline, SEC filings.

Exhibit 7

HEWLETT-PACKARD SUPPLY CHAIN OVERVIEW



Source: Jesse Tortora, "Hewlett-Packard Co.," Prudential Equity Group, LLC, October 19, 2006, page 25.