Apple Inc. in 2012: Can It Sustain Its Growth and Defend against New Competitive Threats?

CASE 14

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John E. Gamble
University of South Alabama

Lou Marino
The University of Alabama

Despite the loss of Steve Jobs as CEO in 2011 and sluggish economic conditions in the United States, Apple Inc. had been able to sustain its impressive growth into 2012. The company set record quarterly revenues and profits during its second quarter of 2012, which resulted in its stock price catapulting to a level that made it the world's most valuable company as measured by market capitalization. In fact, only Microsoft's market capitalization of $619 billion on December 30, 1999 was greater than Apple's $600 billion-plus market capitalization on April 10, 2012. The record growth in revenues and profits came primarily from volume increases in the sale of iPhones and iPads, which increased by 88 percent and 151 percent, respectively, from the same period in 2011. The sales of Mac computers increased by 7 percent from the second quarter of 2011 to reach 4 million units. The only sales disappointment for the company was a 15 percent year-over-year decline in iPod sales. The company sold 7.7 million iPods during the second quarter of 2012.

The company's record-setting performance was a relief to those who worried that the company would struggle after the illness-forced resignation of Steve Jobs in August 2011 and then his death on October 5, 2011. Steve Jobs had battled a variety of health issues including pancreatic cancer since 2004 and had taken medical leaves of absence from his CEO position in 2004, 2009, and earlier in 2011, but despite his absence, he had been able to provide inspiration for the company's hottest new products such as the iPhone, iPad, and iPod. During all three medical leaves, Apple's chief operating officer, Tim Cook, took the helm of the company. He oversaw the successful launch of the company's most successful new products while also revamping the company's supply chain and improving overall operating efficiency. Tim Cook's successful performance during Steve Jobs' absences led to his appointment as successor to Jobs as CEO of Apple Inc.

But many challenges faced the new CEO and his chief managers in 2012. The company had yet to reverse the general decline in iPod unit sales and Apple was facing a serious competitive threat in the smartphone market. Continuing growth in iPhone sales was critical to the company's financial performance, since iPhone sales accounted for $47.2 billion of the company's 2011 revenues of $108.1 billion. Apple's iPad tablet computers were the company's second-largest contributor to total revenues, with sales of more than $20.4 billion during 2011.

Samsung had surged to the top of the smartphone market in late 2011 by introducing the Galaxy and other models that utilized Google's Android operating system to match the key features of the iPhone. In 2012, Android was the most widely used operating system platform for smartphones in the United States with a 50.9 percent share of the market. Google's $12.5 billion of Motorola Mobility in 2012 provided it with the resources needed to expand beyond software and enter the market for smartphone handsets and tablet computers. Google introduced its first hardware product, the Nexus 7 tablet computer in June 2012. Dell, HP, and other computer manufacturers were also rolling out new tablet computers to compete against the iPad. With competitive rivalry heating up and technological change accelerating, Apple's new managers would be forced to work creatively and expeditiously to sustain the company's success achieved under Steve Jobs.

STEVE JOBS' STRATEGIC LEADERSHIP AT APPLE

Stephen Wozniak and Steve Jobs founded Apple Computer in 1976 when they began selling a crudely designed personal computer called the Apple I to Silicon Valley computer enthusiasts. Two years later, the partners introduced the first mass-produced personal computer (PC), the Apple II, which eventually sold more than 10,000 units. While the Apple II was relatively successful, the next revision of the product line, the Macintosh (Mac), would dramatically change personal computing through its user-friendly graphical user interface (GUI), which allowed users to interact with screen images rather than merely type text commands.

The Macintosh that was introduced in 1984 was hailed as a breakthrough in personal computing, but it did not have the speed, power, or software availability to compete with the PC that IBM had introduced in 1981. One of the reasons the Macintosh lacked the necessary software was that Apple put very strict restrictions on the Apple Certified Developer Program, which made it difficult for software developers to obtain Macs at a discount and receive informational materials about the operating system.

With the Mac faring poorly in the market, founder Steve Jobs became highly critical of the company's president and CEO, John Sculley, who had been hired by the board in 1983. Finally, in 1985, as Sculley was preparing to visit China, Jobs devised a boardroom coup to replace him. Sculley found out about the plan and canceled his trip. After Apple's board voted unanimously to keep Sculley in his position, Jobs, who was retained as chairman of the company but stripped of all decision-making authority, soon resigned. During the remainder of 1985, Apple continued to encounter problems and laid off one-fifth of its employees while posting its first-ever quarterly loss.

Despite these setbacks, Apple kept bringing innovative products to the market, while closely guarding the secrets behind its technology. In 1987, Apple released a revamped Macintosh computer that proved to be a favorite in K–12 schools and with graphic artists and other users needing excellent graphics capabilities. However, by 1990, PCs running Windows 3.0 and Word for Windows were preferred by businesses and consumers and held a commanding 97+ percent share of the market for personal computers.

In 1991, Apple released its first-generation notebook computer, the PowerBook and, in 1993, Apple's board of directors opted to remove Sculley from the position of CEO. The board chose to place the chief operating officer, Michael Spindler, in the vacated spot. Under Spindler, Apple released the PowerMac family of PCs in 1994, the first Macs to incorporate the PowerPC chip, a very fast processor co-developed with Motorola and IBM. Even though the PowerMac family received excellent reviews by technology analysts, Microsoft's Windows 95 matched many of the capabilities of the Mac OS and prevented the PowerMac from gaining significant market share. In January 1996, Apple asked Spindler to resign and chose Gil Amelio, former president of National Semiconductor, to take his place.

During his first 100 days in office, Amelio announced many sweeping changes for the company. He split Apple into seven distinct divisions, each responsible for its own profit or loss, and he tried to better inform the developers and consumers of Apple's products and projects. Amelio acquired NeXT, the company Steve Jobs had founded upon his resignation from Apple in 1985. Steve Jobs was rehired by Apple as part of the acquisition. In 1997, after recording additional quarterly losses, Apple's board terminated Amelio's employment with the company and named Steve Jobs interim CEO.

Under Jobs' leadership, Apple introduced the limited-feature iMac in 1998 and the company's iBook line of notebook computers in 1999. The company was profitable in every quarter during 1998 and 1999, and its share price reached an all-time high in the upper $70 range. Jobs was named permanent CEO of Apple in 2000, and in 2001 oversaw the release of the iPod. The iPod recorded modest sales until the 2003 launch of iTunes—the online retail store where consumers could legally purchase individual songs. By July 2004, 100 million songs had been sold and iTunes had a 70 percent market share among all legal online music download services. The tremendous success of the iPod helped transform Apple from a struggling computer company into a powerful consumer electronics company.

By 2005, consumers' satisfaction with the iPod had helped renew interest in Apple computers, with its market share in personal computers growing from a negligible share to 4 percent. The company also exploited consumer loyalty and satisfaction with the iPod to enter the market for smartphones with the 2007 launch of the iPhone. The brand loyalty

EXHIBIT 1 Summary of Apple Inc.'s Financial Performance, 2007–2011 ($ in millions, except share amounts)

	2011	2010	2009	2008	2007
Net sales	$108,249	$65,225	$42,905	$37,491	$24,006
Costs and expenses					
Cost of sales	64,431	39,541	25,683	24,294	15,852
Research and development	2,429	1,782	1,333	1,109	782
Selling, general, and administrative	7,599	5,517	4,149	3,761	2,963
Total operating expenses	10,028	7,299	5,482	4,870	3,745
Operating income	33,790	18,385	11,740	8,327	4,409
Other income and expenses	415	155	326	620	599
Income before provision for income taxes	34,205	18,540	12,066	8,947	5,008
Provision for income taxes	8,283	4,527	3,831	2,828	1,512
Net income	$ 25,922	$14,013	$ 8,235	$ 6,119	$ 3,496
Earnings per common share:					
Basic	$28.05	$15.41	$9.22	$6.94	$4.04
Diluted	$27.68	$15.15	$9.00	$6.78	$3.93
Cash dividends declared per common share	$0.00	$0.00	$0.00	$0.00	$0.00
Shares used in computing earnings per share:					
Basic	924,258	909,461	893,016	881,592	864,595
Diluted	936,645	924,712	907,005	902,139	889,292
Total cash, cash equivalents, and marketable securities	$ 81,570	$51,011	$33,992	$24,490	$15,386
Total assets	116,371	75,183	47,501	36,171	24,878
Total long-term obligations	10,100	5,531	3,502	1,745	687
Total liabilities	39,756	27,392	15,861	13,874	10,347
Total shareholders' equity	76,615	47,791	31,640	22,297	14,531

Sources: Apple Inc., 2008, 2010, and 2011 10-K reports.

developed through the first iPod, and then the iPhone, made the company's 2010 launch of the iPad a roaring success with 3.3 million units sold during its first three months on the market. Much of Apple's turnaround could be credited to Steve Jobs, who had idea after idea for how to improve the company and turn its performance around. He not only consistently pushed for innovative new ideas and products but also enforced several structural changes, including ridding the company of unprofitable segments and divisions.

The success of the turnaround could also be attributed to the efforts of Tim Cook, Apple's chief operating officer, who oversaw the company's operations at various times between 2004 and 2011. Tim Cook was first asked to act as the company's chief manager in 2004 when Steve Jobs was recovering from pancreatic cancer surgery, later in 2009 when Jobs took a six-month medical leave for a liver transplant, and again in early 2011 when Jobs left the company for another medical leave. Jobs' illness eventually forced his resignation shortly before his death on October 5, 2011. While Jobs had been the inspiration for the company's hottest new products such as the iPhone, iPad, and iPod, analysts and key Apple managers viewed Cook as an "operational genius." While COO and acting CEO, Tim Cook was responsible for overhauling Apple's supply chain system and transforming it into one of the lowest-cost electronics manufacturers.[1] Prior to coming to Apple in 1998, Tim Cook was a rising star among Compaq Computer's management team.

A summary of Apple's financial performance for fiscal years 2007 through 2010 is provided in Exhibit 1. The company's net sales by operating segment and product line and unit sales by product line for 2008 through 2010 are provided in Exhibit 2.

EXHIBIT 2 Apple, Inc.'s Net Sales by Operating Segment, Net Sales by Product, and Unit Sales by Product, 2009-2011 ($ in millions)

	2011	Change	2010	Change	2009
Net Sales by Operating Segment:					
Americas net sales	$ 38,315	56%	$24,498	29%	$18,981
Europe net sales	27,778	49%	18,692	58%	11,810
Japan net sales	5,437	37%	3,981	75%	2,279
Asia-Pacific net sales	22,592	174%	8,256	160%	3,179
Retail net sales	14,127	44%	9,798	47%	6,656
Total net sales	$108,249	66%	$65,225	52%	$42,905
Net Sales by Product:					
Desktops[a]	$ 6,439	4%	$ 6,201	43%	$ 4,324
Portables[b]	15,344	36%	11,278	18%	9,535
Total Mac net sales	$ 21,783	25%	$17,479	26%	$13,859
iPod	7,453	(10)%	8,274	2%	8,091
Other music-related products and services[c]	6,314	28%	4,948	23%	4,036
iPhone and related products and services[d]	47,057	87%	25,179	93%	13,033
iPad and related products and services[e]	20,358	311%	4,958	n.m.	0
Peripherals and other hardware[f]	2,330	28%	1,814	23%	1,475
Software, service, and other sales[g]	2,954	15%	2,573	7%	2,411
Total net sales	$108,249	66%	$65,225	52%	$42,905
Unit Sales by Product:					
Desktops[a]	4,669	1%	4,627	45%	3,182
Portables[b]	12,066	34%	9,035	25%	7,214
Total Mac unit sales	16,735	22%	13,662	31%	10,396
iPod unit sales	42,620	(15)%	50,312	−7%	54,132
iPhone units sold	72,293	81%	39,989	93%	20,731
iPad units sold	32,394	334%	7,458	n.m.	0

n.m.: Not meaningful
[a]Includes iMac, Mac mini, Mac Pro, and Xserve product lines.
[b]Includes MacBook, MacBook Pro, iBook, and PowerBook product lines.
[c]Consists of iTunes Store sales, iPod services, and Apple-branded and third-party iPod accessories.
[d]Includes revenue recognized from iPhone sales, carrier agreements, and Apple-branded and third-party iPhone accessories.
[e]Includes revenue recognized from iPad sales, services, and Apple-branded and third-party iPad accessories.
[f]Includes sales of displays, wireless connectivity and networking solutions, and other hardware accessories.
[g]Includes sales of Apple-branded operating system and application software, third-party software, and Mac and Internet services.
[h]Derived by dividing total product-related net sales by total product-related unit sales.
Source: Apple Inc., 2011 10-K report.

OVERVIEW OF THE PERSONAL COMPUTER INDUSTRY

The personal computer industry was relatively consolidated, with five sellers accounting for 76.3 percent of the U.S. shipments and 59.2 percent of worldwide shipments in 2011 (see Exhibit 3). Prior to the onset of the U.S. recession that began in 2008, the PC industry was expected to grow at a rate of 5–6 percent, to reach $354 billion by 2012. However, the effects of the recession caused a dramatic decline in revenues and unit shipments in the United States between 2007 and 2008. The PC market began to improve by 2009 as U.S. businesses replaced aging computers and demand in some

EXHIBIT 3 U.S. and Global Market Shares of Leading PC Vendors, 2000, 2007–2011

A. U.S. Market Shares of the Leading PC Vendors, 2000 and 2007–2011

		2011		2010		2009		2008		2007		2000	
2010 Rank	Vendor	Shipments (in 000s)	Market Share	Shipments (in 000s)	Market Share	Shipments (in 000s)	Market Share	Shipments (in 000s)	Market Share	Shipments (in 000s)	Market Share	Shipments (in 000s)	Market Share
1	Hewlett-Packard[1]	18,595	26.1%	19,488	25.9%	18,781	26.9%	16,218	24.7%	16,759	23.9%	5,630	11.5%
2	Dell	15,898	22.3	17,352	23.1	17,099	24.5	19,276	29.4	19,645	28.0	9,645	19.7
	Compaq[1]	—	—	—	—	—	—	—	—	—	—	7,761	15.9
3	Apple	7,649	10.7	6,586	8.8	5,579	8.0	5,158	7.9	4,081	5.8	n.a	n.a.
4	Toshiba	6,695	9.4	6,624	8.8	5,379	7.7	3,788	5.8	3,509	5.0	n.a	n.a.
5	Acer[2]	5,575	7.8	8,012	10.7	7,983	11.4	6,106	9.3	3,860	5.5	n.a.	n.a.
	Others	16,897	23.7	17,038	22.7	15,008	21.5	15,026	22.9	22,235	31.7	18,959	38.8
	All vendors	71,309	100.0%	75,101	100.0%	69,829	100.0%	65,571	100.0%	70,088	100.0%	48,900	100.0%

B. Worldwide Market Shares of the Leading PC Vendors, 2000 and 2007–2011

		2011		2010		2009		2008		2007		2000	
2010 Rank	Vendor	Shipments (in 000s)	Market Share	Shipments (in 000s)	Market Share	Shipments (in 000s)	Market Share	Shipments (in 000s)	Market Share	Shipments (in 000s)	Market Share	Shipments (in 000s)	Market Share
1	Hewlett-Packard[1]	62,334	17.7%	64,213	18.5%	59,942	20.3%	54,293	18.9%	50,526	18.8%	10,327	7.4%
2	Dell	44,282	12.6	43,403	12.5	38,416	13.1	42,388	14.7	39,993	14.9	14,801	10.6
	Compaq[1]	—		—	—	—	—	—	—	—	—	17,399	12.5
3	Lenovo/IBM[2]	44,007	12.5	34,182	9.9	24,887	8.5	21,870	7.6	20,224	7.5	9,308	6.7
4	Acer[3]	37,169	10.6	42,430	12.3	38,377	13.0	31,377	10.9	21,206	7.9	n.a.	n.a
5	ASUS	20,741	5.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a
	Others	143,862	40.7	142,874	41.3	132,586	45.1	137,638	47.9	137,011	50.9	87,222	62.8%
	All vendors	352,395	100.0%	346,198	100.0%	294,208	100.0%	287,566	100.0%	268,960	100.0%	139,057	100.0%

a. = not available; sales and market shares for these companies in the years where *n.a.* appears are included in the "Others" category because the company was not in the top five in shipments or market share.

ompaq was acquired by Hewlett-Packard in May 2002.

enovo, a Chinese computer company, completed the acquisition of IBM's PC business in 2005. The numbers for Lenovo/IBM for 2000 reflect sales of IBM-branded PCs only. In 2007, Lenovo branded all IBM PCs as Lenovo.

cer acquired Gateway in 2007 and Packard Bell in 2008. Data for Acer includes shipments for Gateway starting in Q4 2007 and shipments for Packard Bell starting in Q1 2008, and only Acer data for prior periods.

Source: International Data Corporation.

developing countries accelerated. However, worldwide PC shipments declined by 0.2 percent during the first quarter of 2012, with only Asia/Pacific (excluding Japan) maintaining healthy demand. The European debt crisis dampened demand slightly in the region, while demand in Japan and the United States fell more seriously. Demand for PCs in Japan had fallen by 7 percent during 2011, and the 5 percent decline in industry revenues in the U.S. during 2011 represented the second worst year in history for the U.S. PC industry. Modest single-digit growth in emerging markets allowed China to become the world's largest market for PCs during the second quarter of 2011. The United States remained the largest global market for PCs for the entire 2011 calendar year. While the poor growth in worldwide PC shipments was attributable to economic reasons, the rise in popularity of tablet computers had also affected PC sales. Tablet computers, such as the iPad, had yet to become widely adopted by businesses, but were commonly becoming replacements for laptops and PCs among consumers. The market for tablet computers increased from 17 million units in 2010 to 69 million units in 2011 to an estimated 106 million units in 2012.

APPLE'S COMPETITIVE POSITION IN THE PERSONAL COMPUTER INDUSTRY

Apple's proprietary operating system and strong graphics-handling capabilities differentiated Macs from PCs, but many consumers and business users who owned PCs were hesitant to purchase a Mac because of Apple's premium pricing and because of the learning curve involved with mastering its proprietary operating system. The company's market share in the United States had improved from 4.7 percent in 2006 to 8.8 percent in 2010 primarily because of the success of the iPod and iPhone. These products created a halo effect whereby some consumers (but not business users) switched to Apple computers after purchasing an iPod, iPhone, or iPad. The company hoped to benefit even more from this effect by designing the Mac OS X operating system to emulate the look and functionality of its iOS operating system used for its mobile devices.

Apple's computer product line consisted of several models in various configurations. Its desktop lines included the Mac Pro (aimed at professional and business users); the iMac (targeted toward consumer, educational, and business use); and Mac mini (made specifically for consumer use). Apple had two notebook product lines: MacBook Pro (for professional and advanced consumer users) and MacBook Air (designed for education users and consumers). All Apple computers were priced at a steep premium compared to PCs and laptops offered by Dell, HP, and other rivals. In July 2012, Mac Pro pricing started at $2,499, iMac and MacBook Pro pricing began at $1,199, the MacBook Air was offered from $999, and Mac mini pricing started at $599.

APPLE'S ENTRY INTO THE MARKET FOR TABLET COMPUTERS

Apple entered the market for tablet computers with its April 3, 2010, launch of the iPad. Tablet computers had been on the market since the late 1990s, but only Apple's version had gained any significant interest from consumers and business users. Previous-generation tablet computers required the use of a stylus to launch applications and enter information. Most users found the stylus interface to be an annoyance and preferred to use a smartphone or laptop when portability was required. Dell, Acer, Hewlett-Packard, and RIM had all raced to get touch-screen tablet computers to market but were unable to do so until very late 2010 and early 2011 because of the technological differences between tablet computers and PCs. Tablet computers were technologically similar to smartphones and shared almost no components with PCs. HP acquired Palm for $1.2 billion in May 2010 to accelerate its entry into tablet computers. However, most PC manufacturers chose to utilize smartphone microprocessors and Google's Android operating system in their tablet computer models. By mid-2012, Apple held a 68 percent share of the market for tablet computers.

Apple's iPad 2 that was launched in March 2011 contained a dual-core processor that was far more powerful than the first-generation iPad and most competing tablet computers. The third-generation iPad, launched in March 2012, utilized a quad core graphics chip, a 5 megapixel camera capable of capturing photos and 1080p HD video, and an ultra-high-resolution 9.7-inch display. The 3.1 million pixel display of the third-generation iPad had twice the number of pixels of the iPad 2 and one million more pixels than an HD TV. Apple's latest iPad retailed from $499 for the 16GB model to $829 for the 64GB model. With the launch of

EXHIBIT 4 Hewlett-Packard Personal Systems Group, Net Revenue, 2007–2011 ($ millions)

Product	2011	2010	2009	2008	2007
Notebooks	$21,824	$22,545	$20,210	$22,657	$17,650
Desktop PCs	15,370	15,478	12,864	16,626	15,889
Workstations	1,805	1,786	1,261	1,902	1,721
Other	575	932	970	1,110	1,149
Total	$39,574	$40,741	$35,305	$42,295	$36,409

Sources: Hewlett-Packard, 2007, 2010, and 2011 10-K reports.

the new iPad, pricing on the iPad 2 was reduced to as low as $399.

Basic e-readers such as Amazon's $79 Kindle were not considered direct competitors to the iPad since dedicated reading devices could not browse the Internet, view videos, play music, or perform other media tasks. Also, as of 2012, no Android-based tablet computer had proven to be a worthy rival to Apple's iPad. Some technology sector observers believed that Google's $199 Nexus 7 tablet computer might challenge the iPad, but would likely be a more direct rival of other Android-based tablets such as the $199 Kindle Fire.

APPLE'S RIVALS IN THE PERSONAL COMPUTER INDUSTRY

Hewlett-Packard

Hewlett-Packard (HP) was broadly diversified across segments of the computer industry with business divisions focused on information technology consulting services, large enterprise systems, software, personal computers, printers and other imaging devices, and financial services. The company's Personal Systems Group (PSG), which manufactured and marketed HP and Compaq desktop computers and portable computers, was its largest division, accounting for revenues of almost $40 billion in 2011. HP recorded total net revenues of $127 billion in 2011, with information technology services contributing $36 billion, imaging and printing devices contributing nearly $25.8 billion, and enterprise systems accounting for about $22.2 billion. The company's software business units accounted for sales of nearly $3.2 billion and its financial services unit contributed net revenue of about $3.6 billion in 2011.

PSG revenues declined by nearly 3 percent between 2010 and 2011, primarily because of soft demand and strong price competition in the market for desktop PCs and notebook computers. During 2011, the company's sales of desktop PCs and notebook computers to consumers declined by 15 percent, but improved overall by 2.3 percent because of increased demand for PCs, notebooks, and workstations by businesses. Even with the increased demand in the commercial segment, HP's average selling price declined by 5 percent between 2010 and 2011 because of strong price competition among PC sellers. There had been discussion within the company in 2011 that its Personal Systems Group should be divested because of its weak operating profit margins relative to its other business units. HP's shipments of PCs during the first quarter of 2012 declined by 16 percent compared to the same period in 2011. Exhibit 4 provides the revenue contribution by PSG product line for 2007 through 2011.

Dell Inc.

Dell Inc. was the world's second-largest seller of personal computers, with revenues of about $62.1 billion for the fiscal year ending January 2012. Exhibit 5 presents Dell's revenues by product category for fiscal 2009 through fiscal 2012. Tough economic conditions, declining demand for PCs by consumers, and growing price competition in the PC industry had significantly affected Dell's financial performance, with its revenues declining from $61.1 billion in fiscal 2008 to $52.9 billion in fiscal 2010. In addition, Dell's net earnings fell from $2.9 billion in fiscal 2008 to $2.5 billion in fiscal 2009 to $1.4 billion in fiscal 2010. In fiscal 2011, the company's revenues and net income had improved to $61.5 billion and $2.6 billion, respectively, as the technology sector of the economy

EXHIBIT 5 Dell's Revenues by Product Category, Fiscal 2009-Fiscal 2012 ($ millions)

Product Category	Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009
Servers and networking	$ 8,336	$ 7,609	$ 6,032	$ 6,512
Storage	1,943	2,295	2,192	2,667
Services	8,322	7,673	5,622	5,351
Software and peripherals	10,222	10,261	9,499	10,603
Mobility	19,104	18,971	16,610	18,604
Desktop PCs	14,144	14,685	12,947	17,364
Total net revenue	$62,071	$61,494	$52,904	$61,101

Source: Dell Inc., 2011 and 2012 10-K reports.

began to improve. The improvement strengthened further in fiscal 2012 with Dell's net income improving to nearly $3.5 billion. The company offered a wide range of desktop computers and portables, ranging from low-end, low-priced models to state-of-the-art, high-priced models. The company also offered servers; workstations; peripherals such as printers, monitors, and projectors; and Wi-Fi products. Dell also offered an Android-based Streak tablet computer line and a Windows Phone 7 smartphone in 2012. The company's shipments of PCs declined by 16 percent between the first quarter of 2011 and the first quarter of 2012 because of aggressive pricing by certain rivals. Lenovo's deep price discounts had yielded a 36 percent volume gain between the first quarter of 2012 and the first quarter of 2012.

APPLE'S COMPETITIVE POSITION IN THE PERSONAL MEDIA PLAYER INDUSTRY

Although Apple didn't introduce the first portable digital music player, the company held a 78 percent market share in digital music players in 2011, and the name iPod had become a generic term used to describe digital media players. When Apple launched its first iPod, many critics did not give the product much of a chance for success, given its fairly hefty price tag of $399. However, the iPod's sleek styling, ease of use, and eventual price decreases allowed it to develop such high levels of customer satisfaction and loyalty that rivals found it difficult to gain traction in the marketplace.

The most popular portable players in 2012 not only played music but also could be connected to Wi-Fi networks to play videos, access the Internet, view photos, or listen to FM high-definition radio. The iPod Touch was the best-selling media player in 2012 with more than 300 million units sold by year-end 2011. Even though many competing MP3 players compared favorably to Apple's iPod models, none of Apple's key rivals in the media player industry had been able to achieve a market share greater than 5 percent in 2012. Most consumers did not find many convincing reasons to consider any brand of media player other than Apple.

In 2012, Apple offered four basic styles in the iPod product line: the iPod shuffle, iPod nano, iPod Touch, and iPod classic. Apple also sold an Apple TV device that would allow users to play iPod content, including over 15,000 movies and more than 90,000 TV episodes purchased at iTunes on their televisions. The Apple TV device also allowed users to watch streaming movies and other content provided by Netflix, YouTube, Vimeo, or other Internet sources.

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Aside from the iPod's stylish design and ease of use, another factor that contributed to the popularity of the iPod was Apple's iPod/iTunes combination. In 2011, more than 50 million customers visited the iTunes Store to purchase and download music, videos, movies, and television shows that could be played on iPods, iPhones, or Apple TV devices. Also in 2011, Apple's iTunes Store recorded its 18 billionth download since its launch in 2003. Additionally, iTunes was the world's most popular online movie store, with customers purchasing and renting more than 50,000 movies each day.

The success of the iPod/iTunes combination gave iTunes a 65 percent share of the U.S. digital music market in 2011. Since downloads accounted for more than 50 percent of all music sales in the United States, iTunes' commanding share of the digital music sales also gave it a 23 percent share of total U.S. music sales. Amazon.com was the second-largest seller of digital music in the United States with 12 percent market share, while new entrant Google Play hoped to capture the majority of music sales to users of Android-based mobile phones.

APPLE'S COMPETITIVE POSITION IN THE MARKET FOR SMARTPHONES

The first version of the iPhone was released on June 29, 2007, and had a multitouch screen with a virtual keyboard, a camera, and a portable media player (equivalent to the iPod) in addition to text messaging and visual voice mail. It also offered Internet services including e-mail, web browsing (using access to Apple's Safari web browser), and local Wi-Fi connectivity. More than 270,000 first-generation iPhones were sold during the first 30 hours of the product's launch. The iPhone was named *Time* magazine's Invention of the Year in 2007.

The iPhone 3G was released in 70 countries on July 11, 2008, and was available in the United States exclusively through AT&T Mobility. The iPhone 3G combined the functionality of a wireless phone and an iPod, and allowed users to access the Internet wirelessly at twice the speed of the previous version of the iPhone. Apple's new phone also featured a built-in global positioning system (GPS) and, in an effort to increase adoption by corporate users, was compatible with Microsoft Exchange.

The iPhone 3GS was introduced on June 19, 2009, and included all of the features of the iPhone 3G but could also launch applications and render web pages twice as fast as the iPhone 3G. The iPhone 4 was launched on June 24, 2010 and included video-calling capabilities (only over a Wi-Fi network), a 5-megapixel camera including flash and zoom, 720p video recording, a longer-lasting battery, and a gyroscopic motion sensor to enable an improved gaming experience. The iPhone 4 sold more than 1.7 million units within three days of its launch. The iPhone 4S sold more than four million units within the first three days of its October 14, 2011, launch. The 4S utilized Apple's dual-core A5 microprocessor, 1080p HD video recording, and Siri, Apple's intelligent assistant that responded to voice requests. By 2011, Apple had expanded its carrier network beyond AT&T to include Verizon, Sprint, and C-Spire in the United States and a variety of carriers in Europe and Asia. Industry observers expected a late-2012 release date for the iPhone 5.

APP STORE

Like the iPod/iTunes combination, the 550,000 iPhone applications and 170,000 iPad applications available at Apple's App Store helped the company build strong competitive positions in the markets for smartphones and tablet computers. In 2012, more than 25 billion iPhone and iPad apps had been downloaded from the App Store. With more than 1 billion downloads per month and a 90 percent revenue share of the mobile software market, Apple had been able to pay more than \$3.4 billion to app developers. Users of Apple's iPods, iPhones, iPads, or Macs could also use the company's iMatch or iCloud services that integrated apps, iBooks, and iTunes purchased at the App Store to all devices owned by the individual. The iCloud service also allowed users to share calendars and contacts, wirelessly push photographs to all devices, and back up data from Apple devices.

DEMAND AND COMPETITION IN THE SMARTPHONE MARKET

Worldwide shipments of smartphones increased from 1.7 billion units in 2009 to 4.9 billion units in 2011. Although the worldwide market for mobile phones declined 1.5 percent between the first quarter of 2011 and the first quarter of 2012, the global market for smartphones experienced a year-over-year increase of 42.5 percent. Developing countries such as China offered the greatest growth opportunities but also presented challenges to smartphone producers. For example, there were 700 million mobile phone users in China, but popular-selling models were quickly counterfeited, it was difficult to develop keyboards that included the thousands of commonly used characters in the Chinese language, and most consumers preferred inexpensive feature phones over smartphones.

EXHIBIT 6 The Top Five Worldwide Smartphone Vendors, Their Shipment Volumes, and Market Shares, 2009 to First Quarter 2012

		Q1 2012		2011		2010		2009	
Q2 2011 Rank	Vendor	Shipments (in millions)	Market Share	Shipments (in millions)	Market Share	Shipments (in millions)	Market Share	Shipments (in millions)	Market Share
1	Samsung	42.2	29.1%	94.0	19.1%	22.9	7.5	5.5	3.2%
2	Apple	35.1	24.2	93.2	19.0	47.5	15.6%	25.1	14.5
3	Nokia	11.9	8.2	77.3	15.7	100.1	32.9	67.7	39.0
4	Research in Motion	9.7	6.7	51.1	10.4	48.8	16.0	34.5	19.9
5	HTC	6.9	4.8	43.5	8.9	21.7	7.1	8.1	4.7
	Others	39.1	27.0	132.3	26.9	63.7	20.3	32.6	18.8
	All vendors	144.9	100.0%	491.4	100.0%	304.7	100.0%	173.5	100.0%

Source: International Data Corporation.

Nevertheless, many analysts expected China to account for 10 percent of worldwide smartphone shipments within the near term. Apple began selling the iPhone 4 in China in 2010 through its partnership with China Telecom, the country's second-largest wireless provider and its network of 25 flagship stores located in the country's largest cities. The iPhone 4S became available in China in January 2012—making it available in 90 countries within three months of its initial launch.

With the market for smartphones growing rapidly and supporting high average selling prices, competition was becoming more heated. Google's entry into the market with its Android operating system had allowed vendors such as HTC, Motorola, and Samsung to offer models that matched many of the features of the iPhone—so much so, that in August 2012 a jury awarded Apple more than $1 billion in a copyright infringement case against Samsung. In fact, Android's strong capabilities had made it the number-one smartphone platform in the United States with a 50.9 percent market share in May 2012. Apple's iPhone platform accounted for a 31.9 percent share of smartphones in the United States in May 2012. Android-based Samsung smartphones were the best-selling brand of smartphones in 2011 and the first quarter of 2012. Android's quick rise to the top spot among smartphone platforms led to the August 2011 announcement by Google that the company would enter the handset segment of the smartphone industry and the tablet computer business through the $12.5 billion acquisition of Motorola Mobility. Google's $199 Nexus 7 tablet computer that was launched in June 2012 was its first new hardware product introduced after the Motorola Mobility acquisition. Exhibit 6 presents shipments and market shares for the leading smartphone producers between 2009 and the second quarter of 2012.

APPLE'S PERFORMANCE IN 2012

As of mid-2012, Apple's outstanding performance had not been impeded by the loss of Steve Jobs as CEO and the inspiration of its most important and innovative products. The company's quarterly revenue for the second quarter of 2012 of $39.2 billion was 59 percent higher than in the same period in 2011 and its quarterly profit of $11.6 billion represented a 94 percent year-over-year increase. The company's quarterly shipments of 4 million Macs was 7 percent greater than in the second quarter of 2011, its sales of 11.8 million iPads was a 151 percent improvement of the same period in 2011, and its iPhone sales of 35.1 million units was 88 percent more than were shipped during the second quarter of 2012. Unit sales for the iPod fell to 7.7 million, which was a 15 percent decline from the second quarter of 2011.

The biggest concerns for the company going into the third quarter of 2012 were how Google's entry into the market for smartphone handsets and tablet computers would impact the company's sales of iPhones and iPads. Clearly, iPad and iPhone sales were the largest contributors to the company's 2011 and early-2012 performance, and a steady stream of future innovative products would be necessary to support Apple's lofty stock price. Even though Tim Cook was successfully leading the company after the death of Steve Jobs, it was Jobs who had been widely recognized as the visionary force behind the development of the iPod, iPhone, and iPad. Cook had yet to preside over the development of such groundbreaking products that could give rise to new markets that would be dominated by Apple.

There was little doubt that Google intended to exploit its status as the number-one smartphone platform to end Apple's dominance over the markets for smartphones and tablet computers. While the Nexus 7 had done little to affect iPad sales since its June 2012 launch, Google's Android operating system had allowed Samsung to leapfrog over Apple to become the largest seller of smartphones in 2011 and early-2012. Most of Samsung's market share gains came at the expense of RIM, Nokia, and HTC, since Apple's share increased as well, but it seemed clear that Google and its Android partners seemed resolute in the strategic intent of attacking Apple in its key markets.

ENDNOTES

[1] Yukari Iwatani Kane and Nick Wingfield, "Apple's Deep Bench Faces Challenges," *The Wall Street Journal Online*, August 24, 2011.

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