

## Apple Case Study

### What were Apple's Competitive Advantages?

At the outset, Apple had many competitive advantages that allowed it to become a profitable business. Apple's PCs relied on proprietary designs that only Apple could produce. When Apple developed the Macintosh, it was very easy to use, had an industrial design, and technical elegance. People craved these qualities in a PC, but the Mac was very slow and there was very few compatible programs due to the proprietary design. To combat this, Apple was able to tap into the corporate sector, as the Mac became the best PC with respect to desktop publishing. It was also able to hold more than 50% of the education sector. In addition, Apple was able to control the Mac completely in both hardware and software. It was also able to develop its own peripherals that took advantage of a "plug and play" system<sup>1</sup>.

Many of Apple's current competitive advantages can be linked to its initial competitive advantages. Users in today's world still value the user experience just like when the Mac was initially introduced. Thus, the current incarnations of Macs offer attractive design, ease of use, good security, and bundled software that all contributes to an "Everything-ready" system that is very easy to use<sup>1</sup>. The "plug and play" system is still in use, though right now, the Mac has incorporated current standards such as USB ports. Thus, the current Mac is a PC that "offers a cutting-edge, tightly integrated user experience," meeting the needs of most of the market<sup>1</sup>. In addition, Apple has introduced Apple stores, which offers its own unique retail experience, as people looked forward to a good shopping experience when buying computers. There was also a significant iPod "halo effect" which attracted people to these Apple Stores. This synergy along with iTunes definitely helped to boost sales of traditional PC systems from Apple. It is also fashionable to have an Apple computer, as a recent Microsoft Ad proclaims that some people are just "not cool enough to be a Mac person<sup>2</sup>."

### Analyze the Dynamics of the PC Industry. Are these Dynamics Favorable or Problematic for Apple?

The PC market is extremely fast-changing, as it is currently penetrating into other aspects of peoples' lives, such as multimedia. Until 2000, there was a 15% annual increase in number of PCs. However, recently the market has slowed down, particularly the domestic market, as the annual growth rate is only 3%. This is in great contrast to the international PC market, as the annual PC growth rate has increased, with emerging markets such as Asia dominating. When Apple first started making PCs, the profit margins were extremely high. However, recently these profit margins have decreased dramatically, recently being less than 5% in 2007. Thus, this industry is highly competitive, containing other well known PC manufacturers such as Dell, Hewlett-Packard, Acer, and Lenovo. These manufacturers established Wintel as the industry standard<sup>1</sup>.

The majority of the buyers are home buyers and small/medium businesses; home buyers buy 42% of PCs globally, and small/medium businesses buy 32% of PCs globally. Other smaller buyers include large corporations, education, and government. In general, the business owners bought PCs based on service per price, while home buyers valued a cost-effective machine, though in recent years this has begun to shift as home buyers prefer products with mobility and wireless capabilities. Thus we see that most buyers are extremely price conscious, taking into account the cost of the PC that can accomplish all of their required tasks. Finally, Independent Software Vendors, or ISVs, control the PC market as well. The amount of software that a certain PC could run was directly related to how much people valued said PC. The quality of the software also contributed. Because these ISVs write the majority of PC applications, the value of the PC is directly dependent on its compatibility with these programs<sup>1</sup>.

We believe that all of these factors in the current dynamics of the industry may be problematic for Apple. There still are positive current developments, such as synergies with other multimedia such as the iPod, the ability to run Windows on Macs, as well as the slight current shift of the home buyers valuing style. However, the combination of a stagnant domestic PC market as well as an emerging global PC market will hurt Apple in the long run. By 2010, Forrester Research predicts that emerging markets will have bought 566 million new PCs, while mature markets such as the United States will have added only 150 million new PCs. This is because “Price will be the key driver,” as well as the PC market growth rate of 31% in these emerging markets compared to 3% in the US<sup>3</sup>. This factor alone hurts Apple because of its previous inability to tap into the global market.

### **Has Steve Jobs finally solved Apple’s long-standing problems with respect to the Macintosh business?**

When Steve Jobs retook the helm of Apple in 1997, Apple was facing a series of long-standing problems with its Mac business. Its PC market share had steadily been eroding and was under 3%. Despite over a decade of hard work, there seemed to be no way to reverse the trend. This problem was largely due to several flaws in the Macintosh business model. One issue was that Apple’s operating system was not at all compatible with most of the available software which was designed for Wintel machines. Apple didn’t actively encourage development by third party programmers and preferred to develop its own software in house from the onset. A significant example of this was that the Mac was not compatible with Microsoft Office which was used by the vast majority of the business world. By 1997, due to the erosion of its market share, many developers were finding that it was not worthwhile to port their programs to Mac OS because of the small size of the market. While the early Mac computers had some significant speed advantages over their competitors, by 1997 this advantage had all but disappeared. The use of chips by Motorola/IBM was a major bottleneck as they were significantly slower than comparable chips produced by Intel on the x86 architecture<sup>4</sup>. This meant that in most everyday usage scenarios, the premium priced Macs were

slower and less energy efficient than their cheaper Wintel equivalents. Macs were also plagued by a number of hardware incompatibilities due to the adoption of proprietary standards and formats. For instance, Macs used the firewire connection instead of the more common USB, which meant that Macs were incompatible with a wide variety of peripherals such as printers, scanners, cameras, etc.

Within several years into Steve Jobs's tenure, drastic changes were made to the Macintosh line to address these issues. Most drastic was the porting of the Mac OS to the Intel architecture and the switch from IBM PowerPC to Intel processors. This allowed the Mac to close the speed gap between itself and its Wintel competitors. It also removed the technological barrier that prevented Macs from running many of the newer, more resource intensive processes such as digital video editing. As seen in Figure 1, there are massive advantages from switching to Intel<sup>5</sup>.

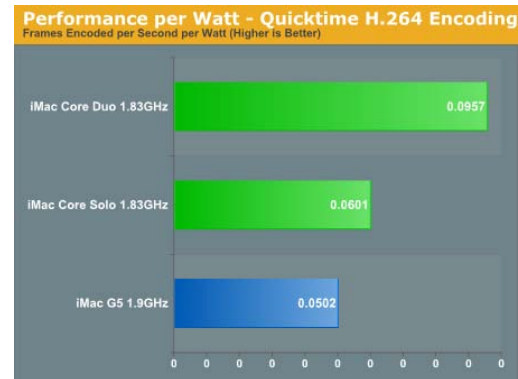


Figure 1 – Performance per watt of Mac using Intel chips (Green) versus IBM PowerPC chips (Blue)<sup>5</sup>.

The switch to the Intel architecture also meant that the Mac could now run Windows and most Windows programs, meaning there was now a solution to the compatibility problems of the past. Jobs also managed to secure a deal with Microsoft to develop a Mac version of the popular Microsoft Office software. To make up for a lack of third party software, Apple increased investment in its in house software development leading to successful software packages such as iLife<sup>6</sup>. After Mac switched to x86 architecture, it became much easier to port Windows software to Mac OSX, meaning more developers were now willing to invest the time and effort into rewriting their programs. Lastly, Apple increased its compatibility to peripherals by adopting the USB standard and basing its new OSX off of UNIX. These changes introduced by Jobs have made the Macintosh line competitive again in the PC market and fixed most of the long-standing problems with the Macintosh brand. As stated by Tim Bajarin, an analyst at the market research firm Creative Strategies, "This will make core Mac buyers happy, and it will attract new users who want to move toward having more of the features and functions of iLife and make it part of their digital lifestyle<sup>7</sup>." The success of Job's changes are reflected by some of the latest numbers which show that Apple's market share within the United States has risen dramatically from 3% to 8.5%<sup>1</sup>.

### **The iPod-iTunes business has been a spectacular success. Has Jobs found a new formula to create a sustainable competitive advantage for Apple?**

Jobs has indeed found a new formula for the success of Apple: the synergy between the iPod, iTunes, Macs, and the iPhone. The iPod has been dominating the personal music player market

since it first came out in November 2001. It is the first key product of Apple's production line and accounts for 70% or more of the U.S. market for portable music players<sup>8</sup>. It became a cool gadget to have for young people, and it is getting much more popular worldwide. The iPod has better hardware design and better functionality than most of its competitors, and it is being sold at a comparable price. However, the iPod alone is not enough to keep the competitive advantage. iTunes is the center link of Apple's synergy chain, as it is the only official software that can sync with the iPod. It also connects to the Apple store for iPods, and the application store for the iPhone or iTouch. iTunes also works on both Mac and PC, and it gives PC owners the opportunity to use iPods and to buy music or applications from Apple. Some said that Microsoft's Zune was comparable with iPod in terms of hardware, but it did not have a good music store to compete with iPod<sup>9</sup>. Since Apple already has a market size advantage, iPod users are unlikely to switch to other portable music players. As long as no one comes up with a product that can compete with iPod in both the hardware and the content store, Apple will keep its competitive advantage.

### **How would you assess Apple's initial strategy for the iPhone? Why did Apple change so quickly to a different strategy?**

Although Apple took complete control over the developing and marketing of the iPhone by giving AT&T the exclusivity period of five years in US markets, Apple's initial strategy for the iPhone was generally unsuccessful. Apple's decision to make the iPhone rely on a relatively slow Edge network (2G and 2.5G) instead of the 3G network had a negative effect on the iPhone's popularity. In addition, the iPhone was priced much too high to be competitive in the handset market because Apple didn't make AT&T subsidize the iPhone. Moreover, Apple's failure to expand the iPhone market to foreign countries fast enough by demanding a high share of service revenue resulted in many iPhones being sold in the worldwide "gray market" at a loss of service-share revenue of \$1 billion over a three-year period<sup>10</sup>.

Apple changed very quickly to different strategies because the iPhone simply wasn't selling as well as they had expected. First of all, Apple had to develop the iPhone to run on 3G networks, since iPhones were too slow compared to other 3G products. Next, Apple had to lower the price of the iPhone by subsidizing from AT&T and by giving up its share of iPhone subscription revenue because the handsets that cost more than \$300 accounted for only 5% of the market<sup>11</sup>. Apple also expanded the iPhone retail channel to include huge chains like Best Buy and Walmart to boost its sales. Apple then launched the iPhone 3G in the worldwide market by giving up the share of service revenue to avoid iPhone leakage into the gray market. Finally, Apple came up with a platform of third-party applications for the iPhone, finding a new source of revenue from the Application Store.

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