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MKTG/236 IBS Center for Management Research Apple's App Store:

Strengthening the iPhone's Competitive Position This case was written by V.

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MKTG/236 Apple's App Store: Strengthening the iPhone's Competitive

Position “ With the amount of downloads they've had since the App Store

launched last July, it must be one of the fastest rising businesses since the

launch of the internet. "1 - David Rowan, Editor of the technology magazine,

Wired UK, in April 2009. “ Phone differentiation used to be about radios and

antennas and things like that. We think, going forward, the phone of the

future will be differentiated by software. "2 -Steve Jobs, CEO of Apple Inc., in

August 2008. INTRODUCTION In July 2009, a press release from Apple Inc.

(Apple) stated that about 1. 5 billion applications (apps) for the Apple iPhone

had been sold from its App Store, within a year of its launch. This was

considered quite an achievement considering the fact that Apple' s highly

popular â€—iTunes Music Store' had only managed to sell about 70 million

songs in its first year, and had reached sales of a billion only after three

years. The App Store, available in over 77 countries, offered 65, 000+ apps,

created by over 100, 000 developers (See Exhibit I for the growth in the availability of iPhone apps over time). Apple's CEO, Steve Jobs (Jobs) said, "The App Store is like nothing the industry has ever seen before in both scale and quality. With 1. 5 billion apps downloaded, it is going to be very hard for others to catch up."

Apple, established in the late 1970s, was known for manufacturing technologically superior computer products. In 2001, Apple introduced a digital music player called the iPod that transformed the music industry. The stupendous success enjoyed by the iPod not only provided Apple with a new source of revenue, but also enabled it to become a major player in the consumer electronics industry. In 2007, when Apple announced that it planned to introduce the iPhone, the product launch became one of the most anticipated in history. The iPhone was universally acknowledged to be a technically superior product that was not only a phone, a music player, and an internet browser, but also a computer. Within a few months of its launch, the iPhone became the third best-selling smartphone⁴ in the world.

1 2 3 4 Luke Bainbridge, "iPhone Apps Are Changing the World of Software and the Way We Work and Play," www.guardian.co.uk, April 12, 2009. Claudine Beaumont, "Apple's Jobs Confirms iPhone 'Kill Switch'," www.telegraph.co.uk, August 11, 2008. Christian Zibreg, "Another iPhone Record: 1. 5 Billion App Store Downloads in the First Full Year of Operation," www.geek.com, July 14, 2009. Although there is no industry standard definition, the term "smartphone" refers to mobile phones with several advanced capabilities, often with PC-like functionality.

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Competitive Position In the initial stages, Apple did not realize the potential of apps in growing the market for the iPhone. However, once unauthorized apps started to become popular, Apple decided to provide an iPhone Software Development Kit (SDK)⁵ and gave additional support to encourage developers to create apps. In addition, Apple took measures to make the iPhone appealing to the corporate sector as well. Within a couple of months, the App Store had become a huge success, with developers creating and offering thousands of apps and consumers enthusiastically downloading millions. The App Store also netted substantial profits for Apple and was expected to have sales of US\$ 800 million in 2009. Analysts provided several reasons for the success of the App Store, including the pricing of the apps, distribution through a popular online format, and the utility of the apps themselves. They also agreed that the number, variety, and attractiveness of the apps were also driving the demand for the iPhone. Between Q12008 and Q12009, the share of the iPhone in the global market for smartphones doubled to 10.8%. Moreover, the iPhone accounted for nearly a third of the handset industry's profits in the first half of 2009. Toni Sacconaghi (Sacconaghi), an analyst at the investment research firm Bernstein Research, said, "With the iPhone and its Apps Store, Apple has established a formidable smartphone ecosystem, which history suggests is very difficult to overcome. In fact, Apple has the potential to become a de-facto standard of sorts in the consumer smartphone market, much like it became in the portable media player market with iPods, due in large part to its first mover advantage and tight software and hardware integration."⁶ However, some of the developers of the apps had issues with Apple's app approval

process, and the returns from the sale of their apps, which were low due to the low prices at which they were sold. Some analysts also pointed out that Apple was struggling to manage the app approval process, which was putting a strain on its resources. Moreover, competition was also increasing, with other handset manufacturers, wireless carriers, and OS vendors entering the fray with similar stores. BACKGROUND NOTE Apple was incorporated as Apple Computer Inc. on January 3, 1977. The company was started by Steve Jobs, Steve Wozniak, and Ronald Wayne to sell the Apple I personal computer. In April 1977, the Apple II was launched, followed by the Apple III in May 1980. Over the years, Jobs played a crucial role in innovation at Apple and the company became a significant player in the corporate and business computing market with other companies like Microsoft Corp.

(Microsoft)⁷ and IBM⁸. In December 1980, Apple came out with an IPO at US\$ 22 a share. In 1983, Apple introduced an advanced personal computer called the Apple Lisa, which did poorly in the market mainly due its hefty price tag of US\$ 10, 000. In April 1983, Jobs felt that Apple was in need of marketing expertise and brought in John Sculley (Sculley), formerly a President at the soft drink giant, PepsiCo, as the new President of Apple. ^{5 6}

^{7 8} An SDK is a set of development tools and other technologies, like an application programming interface (API), debugging aids, sample code, technical notes, and other utilities which help in the creation of apps for a software package, software framework, hardware platform, OS, video game console, etc. John Paczkowski, “iPhone Claims 32 Percent of Handset Industry Operating Profits,” <http://digitaldaily.allthingsd.com>, August 4, 2009. Microsoft is the world’s largest software company based on software

sales revenues. It develops software, issues licenses, and offers and supports a wide variety of software products. International Business Machines Corporation (IBM), incorporated in 1911, sells computer hardware and software and provides infrastructure hosting and consulting services, in areas ranging from mainframe computers to nanotechnology. 2 Apple's App Store: Strengthening the iPhone's Competitive Position In 1984, the company launched the Macintosh (Mac), a lower priced computer, which initially sold well, but declined in popularity later. In the mid-1980s, Apple began to be plagued by several internal problems, including infighting between various business divisions and poor inventory tracking, leading to overproduction. In September 1985, after a showdown with Sculley, Jobs and a few other Apple executives left Apple to set up another computer company called NeXT Incorporated (NeXT). Later, after a reorganization of operations effected by Sculley, the fortunes of Apple changed for the better. Gradually, it became one of the biggest and fastest growing companies in the US. In 1987, Apple introduced the Mac II, which went on to become a successful product. Over the next few years, Apple came out with several computers like the Macintosh Portable, the PowerBook, etc. In March 1988, Apple brought suits against Microsoft and Hewlett-Packard Company⁹, charging them with copying visual aspects of the graphical user interface of the Apple Lisa. However, in 1992, Apple lost the case. The 1990s were marked by leadership changes and poor management decisions at Apple. During the early part of the decade, in a bid to enter the consumer electronics industry, Apple came out with a number of electronic products like digital cameras, portable CD audio players, speakers, video consoles, and TVs, none of which turned out

to be successful. In 1993, after a series of product flops and bad decisions that adversely affected Apple's market position, Apple's Board of Directors ousted Sculley and replaced him with Michael Spindler (Spindler). In 1994, Apple partnered with IBM and Motorola, Inc. (Motorola)¹⁰ to form the AIM alliance, which later introduced the Power Macintosh, the first of the many Apple computers to use IBM's PowerPC processor. By the mid-1990s, Microsoft had come out with the Windows 95 OS — an operating system for which many applications were soon available -- that could be run on cheap personal computers that were being introduced in the market. The personal computer software market came to be ruled by Microsoft. Though Apple's computers were technologically more advanced, they appealed only to a niche audience because of their high prices. Subsequently, Spindler's decision to license Apple technology to outside firms resulted in the appearance of Apple clones that made it more difficult for the company to grow or even maintain its market share. In 1995, an underestimation of the demand for the Power Macintosh resulted in Apple being unable to fulfill US\$ 1 billion worth of orders. This embarrassing episode cost Spindler his job and the reins of the company passed on to Gil Amelio (Amelio). In 1996, Apple purchased NeXT for US\$ 377 million and this paved the way for Jobs' return to Apple, as Special Advisor to Amelio. Amelio reorganized the operations at Apple. However, this failed to arrest the company's decline. In July 1997, the Board of Directors ousted Amelio and named Jobs as the interim CEO of Apple. Jobs' return to Apple heralded a new era for the company. Jobs immediately discontinued the licensing agreements that had spawned the Apple clones, stopped production of several peripherals, and focused on

producing desktop and portable Macs targeted at the business and consumer segments. He also shut down some plants, laid off workers, and even sold some Apple stock to Microsoft for a US\$ 150 million cash infusion. 9 10

Hewlett-Packard Company, founded in 1939, is the largest technology company in the world. It manufactures personal computing devices, enterprise servers, related storage devices, peripherals, networking hardware, software and services. Motorola, established in 1928, is an American telecommunications company that manufactures wireless telephone handsets, and also designs and sells wireless network infrastructure equipment such as cellular transmission base stations and signal amplifiers. 3

Apple's App Store: Strengthening the iPhone's Competitive Position In addition, Jobs stated that Microsoft and Apple would together release a version of Microsoft Office for the Macintosh. In 1997, Apple introduced the online Apple Store that was linked to its build-to-order manufacturing strategy. In August 1998, Apple introduced a new computer called the iMac designed by a team led by Jonathan Ive (Ive). Over the next few years, Apple purchased a number of companies to acquire a collection of professional and consumer-oriented digital production software like video editing and image compositing tools. By the early 2000s, Apple had turned profitable and its share price was on the rise. In March 2001, it introduced the Mac OS X computer operating system, targeted both at the personal and business markets. In May 2001, Apple opened the first of its retail stores called the 'Apple Retail Store', in Virginia. In October 2001, Apple introduced its digital audio player, the iPod that went on to become the best selling digital audio player in history and was widely credited with changing

the way people listened to music. In 2003, Apple launched the online ‘iTunes Music Store’ that was integrated with the iPod and offered music downloads starting at US\$ 0.99/song. In September 2005, Apple along with Motorola released a mobile phone called ROKR E1 that used iTunes. However, the phone was discontinued after a year, as Jobs felt that designing the phone with Motorola had caused Apple to make some design compromises. In 2006, Apple introduced a series of successful computers like the Mac Pro, the MacBook, and the MacBook Pro. During the 2000s, the success of Apple’s products meant that the share price of Apple registered a dramatic increase, going from US\$ 6/share in 2003 to reach US\$ 80/share in 2006.

THE LAUNCH OF THE iPhone In January 2007, at the annual Macworld Conference & Expo¹¹, Jobs announced that the company would be renamed Apple Inc. He also stated that Apple would soon be launching a new smartphone called the Apple iPhone. After the expo, it came to light that for over 30 months, Apple had been secretly working with AT&T Mobility (AT&T)¹² on a project to develop the iPhone at an estimated cost of US\$ 150 million. The iPhone, which was developed by a team of about 200 engineers, was designed by Ive. Apple was required to file for operating permits with the Federal Communications Commission (FCC)¹³ in order to get the approval for the iPhone. The FCC generally made the filings public; therefore Apple decided to drop the secrecy around the iPhone and disclosed the details at the expo. Unlike its earlier collaboration with Motorola, this time Apple was given total freedom in designing the phone and developing its hardware and software. Analysts observed that this was extremely unusual, as wireless carriers like AT&T and others generally dictated terms to handset

manufacturers on aspects like design, features, interface, and price, using their networks as leverage. Many analysts commented that Jobs had managed to work out a favorable deal for Apple with AT&T, which was to be the wireless carrier for the phone. Apple entered into an agreement with AT&T to offer the iPhone for five years exclusively on its network. AT&T would get 10% of the 11 12 13 Macworld Conference & Expo is a tradeshow started in 1985 that is generally held in the second week of January in the US. AT&T is a wholly owned subsidiary of AT&T Inc. and is the second-largest mobile phone company in the US, in terms of number of subscribers. Earlier called Cingular, it was rebranded under the AT&T name in January 2007. The FCC is an independent agency charged with regulating all non-federal government use of the radio spectrum, interstate telecommunications, and international communications in the US. 4 Apple's App Store: Strengthening the iPhone's Competitive Position revenue from iPhone sales at AT&T stores, as well as a small part of the revenue from iTunes made available on the iPhone. Apple took over the handset activation process, and would receive about US\$ 10 a month from every iPhone customer's AT&T bill. 14 The launch of the iPhone was preceded by unprecedented media coverage, in spite of the fact that there were several smartphones already available in the US, with the market being dominated by Research in Motion Ltd. (RIM)15's BlackBerry devices and Palm, Inc.(Palm)16's Treo line of phones. These smartphones could perform a variety of functions like wireless web browsing, e mailing, etc. They also had some apps that could be synchronized with PCs. It was announced that the iPhone would be available on June 29, 2007, and people queued up for days outside Apple Retail Stores to buy it. Two

versions of the iPhone were offered initially – a 4GB model for US\$ 499 and an 8GB model for US\$ 599. The phone featured a 3.5-inch (89 mm) touch screen display that provided a virtual keyboard, motion sensors, Bluetooth, and Wi-Fi. It also functioned as a camera phone and a portable media player, comparable to a video iPod. It ran on a scaled down version of the Mac OS X operating system called the iPhone OS X (See Exhibit II for more about the features of the three generations of iPhones). Apart from Mac OS X apps like Safari (web browser) and Mail, the iPhone also included webbased apps like Google Maps, Stocks, YouTube, and Weather. One unique feature of the iPhone was its visual voice mail system, which let users select and listen to messages in the order of their choice -- just like email. Most analysts felt that Apple had redefined the smartphone market with the iPhone, as the variety of apps on the iPhone made it more of a powerful computer than a phone. In Q4 2007, 300 million cell phones were sold worldwide out of which 35 million units were smartphones. Even though the smartphone market itself was a relatively small component of the overall global cell phone market, it was growing quite rapidly. By February 2008, the iPhone had become the third-best selling smartphone in the world, with a 6.5% market share. At that time, Nokia Corp. (Nokia)¹⁷ was the global market leader with a 53% market share, followed by RIM at 11.4%. In the US, Apple was in the second position in the smartphone market with a market share of 28%, behind RIM (41%), and ahead of Palm (9%).

18 THE CASE FOR IPHONE APPS Initially, Apple did not release the code of the iPhone OS to third-party developers. However, many developers found ways to use ‘jailbreaking’¹⁹ to create unofficial apps for the iPhone.

14 15 16 17 18 19 Fred Vogelstein, ‘The Untold Story:

How the iPhone Blew Up the Wireless Industry, â€– www. wired. com, January 9, 2008. RIM is a Canada-based wireless device company founded in 1984 that is mostly known for being the manufacturer of the BlackBerry smartphone. It develops its own software for its devices, in addition to other wireless data components. Palm, founded in 1982 in the US, is a personal digital assistant and smartphone manufacturer that had successfully launched devices like Zire and Tungsten PDAs, and Centro and Pre smartphones. Nokia, incorporated in 1871, is a Finnish multinational communications corporation engaged in the manufacture of mobile devices and development of other telecommunication equipment. â€•Smart mobile device shipments hit 118 million in 2007, up 53% on 2006, â€– www. canalsys. com, February 5, 2008. â€–Jailbreaking’ involves the removal of the software lock which Apple had in each iPhone to prevent the users of iPhone from running unofficial code on their devices. The process helped users download and install apps on the iPhone. 5 Apple’s App Store: Strengthening the iPhone’s Competitive Position In March 2008, after Apple recognized the popularity of the unauthorized iPhone apps, it released the iPhone OS code to developers to prevent jailbreaking from becoming the norm. Apple made available an SDK, which contained tools and technologies pertaining to the iPhone OS and could be downloaded by anyone. Moreover, Apple invited developers interested in creating apps for the iPhone to join the â€–iPhone Developer Program’, paying US\$ 99/annum. The program was designed to help developers test their code, get tech support, and have a platform to distribute the apps that they developed. The SDK quickened the process of app development, and allowed developers to create apps in weeks rather

than months. The similarity between iPhone's OS and the Mac OS made the app development process easier, even though there were certain constraints in developing apps for a mobile platform. Craig Hockenberry, Principal/Software Engineer at Iconfactory, a developer of popular iPhone apps, said, "From day 1, I was very impressed with the whole set of tools, and how easy it was to transfer from doing Mac software development to doing iPhone software development." According to Apple, one of the reasons why it released the SDK was that, by itself, it could not possibly anticipate or create all the apps that people might want to have on the iPhone. Moreover, with more apps available, more people would be encouraged to buy the iPhone. All apps had to be electronically signed by the developers and submitted for approval and certification by Apple, which ensured their security and reliability and protected the user experience. Developers were free to set their own prices, subject to a minimum price of US\$ 0.99. The revenue sharing agreement was that the developers would get 70% of the revenue from sales, while Apple would get 30%. If an app was free, the developer did not have to pay Apple anything. The apps were distributed through the "App Store", which was launched on July 11, 2008, and was integrated with the iPhone and was also accessible through iTunes. The apps could be downloaded by users onto their iPhones through Wi-Fi or EDGE²¹. The App Store was a departure from the normal mobile industry practice where apps were released by the wireless carriers and not the handset manufacturers. In July 2008, Apple released a new version of the iPhone called the iPhone 3G, with assisted GPS and other 3G²² features like concurrent use of speech and data services, a higher data transfer rate, etc.

Apple initially marketed the iPhone as a phone, which allowed customers to listen to music, update their status on FaceBook, etc. However, realizing that most smartphones were purchased for business use, Apple soon decided to add features that would appeal to corporate users. Apple provided technologies that helped the IT departments of companies to better integrate their employees' iPhones with the corporate servers, while at the same time maintaining security and reliability. Apple licensed Microsoft's ActiveSync protocol that allowed a secure, wireless syncing of e-mail, calendars, and contacts data with PCs. In addition, Apple also licensed Cisco System's IPsec VPN for use in the iPhone, provided "remote wipe" technology which erased sensitive data. Tom Krazit, "Apple Developers Mark a Year Of iPhone Apps," <http://news.cnet.com>, March 5, 2009. Enhanced Data rates for GSM Evolution (EDGE) is an upgraded mobile technology that provides a more than three-fold increase in both the capacity and performance of GSM/GPRS networks. 3G is a family of standards for mobile telecommunications that enables services like video calls and easy transfer of wireless data. 3G networks help network operators to provide users with a variety of advanced services, while at the same time gaining greater network capacity, through higher spectral efficiency. Cisco is a multinational corporation founded in 1984, which designs and sells networking and communications technology and services like storage networking, security & VPN products, etc. IPsec VPN is a widely deployed network security technology that provides high levels of security through encryption and authentication and protecting data from unauthorized access.

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data if an iPhone was stolen or lost, and adopted the 802. 1x standard for Wi-Fi security. Moreover, to encourage companies to create a variety of in-house corporate apps, Apple offered the ‘Enterprise Developer Program’ with an annual membership fee of US\$ 299.

THE SUCCESS OF iPHONE APPS

The App Store was a resounding success. Within a month of its opening, customers had downloaded about 60 million apps ranging from games to news and entertainment features. In August 2008, Jobs revealed that Apple was making US\$ 1 million a day in sales from the App Store. He said, ‘Who knows, maybe it will be a \$1 billion marketplace at some point in time. I’ve never seen anything like this in my career for software.’

By January 2009, about 10, 000 apps were available at the App Store and 500 million apps had been downloaded by the customers. Within the same period, an average iPhone owner was estimated to have downloaded about 15 apps. Talking about the large volume of downloads, Nic Covey, a Nielsen Mobile analyst, said, ‘It’s remarkable what Apple has accomplished in so short a time.’

According to information released by comScore Inc., a marketing research company, in early 2009, the most popular app was ‘Tap Tap Revenge’ — an app which allowed the user to tap colored balls on the screen in tune with a song. This app was downloaded by almost one-third of the people using the App Store. The survey also revealed that the best and usually the most successful apps utilized the iPhone’s hardware features like the motion sensor or the GPS. Social networking apps were also found to be very popular. It was also revealed that 12 of the top 25 apps were games, most of which were mobile versions of popular online games. Enterprise apps were also found to be highly successful, with several well

known companies having created useful iPhone enterprise apps like Oracle Business Indicators app, Salesforce. com' s Salesforce Mobile, Cisco' s WebEx, Jaadu VNC, etc. Analysts felt that the success of the iPhone apps was due to a combination of factors, like a complete device, a mature software platform, and a distribution system through the largest online store. Travis Boatman, Vice President of worldwide studios for EA Mobile, creator of iPhone games, said, "They had all three sitting there, and that' s very difficult to create in this industry."–27 Many analysts felt that by using the framework of its hugely popular iTunes Store, Apple had made it easy for customers to access and download the apps using an interface with which they were familiar. This familiarity also increased customer confidence in the buying process. The App Store also simplified the process of monetizing apps for developers. Michael Gartenberg, an analyst at technology and market research company Forrester Research, said, "The problem is that the other platforms lack a central store that people can easily go to that they' ve already done business with and make purchases quickly from the store to the device."–28 Some analysts observed that users had long been frustrated with the wireless carriers' control over the kind of apps they could download. They felt that the App Store gave users the freedom to download whatever apps they wanted. Some analysts also felt that the pricing strategy adopted by Apple in the App Store, similar to the one that was followed in the iTunes Store, where songs were sold cheaply but in high volumes, was another reason for the large number of downloads. With prices as low as US\$ 0. 99 or 49p (in the UK) for some apps, customers did not take much time in making the purchase decision. A 24 25 26 27 28 Jacqui Cheng, "Jobs: App

Store Could Become a Billion Dollar Marketplace, â€– <http://arstechnica.com>, August 11, 2008. Nielsen Mobile is the mobile measurement business of Nielsen Company, a prominent global information and media company. It provides syndicated consumer research to the telecom and mobile media markets. Peter Burrows, â€•The Apple App Monster, â€– www.businessweek.com, January 15, 2009. Tom Krazit, â€•Apple Developers Mark a Year Of iPhone Apps, â€– <http://news.cnet.com>, March 5, 2009. Jennifer LeClaire, â€•Apple's App Store Sells \$30 Million in 30 Days, â€– www.newsfactor.com, August 11, 2008. 7 Apple's App Store: Strengthening the iPhone's Competitive Position developer said, â€•If an app only cost 49p, people don't mind if they only use it once or twice, and it's not even the end of the world if it actually turns out to be a bit crap. â€–29 Analysts also pointed out that the apps had the capacity to transform an iPhone into a variety of completely different devices — for example, a gaming console or even a medical diagnostic tool. They observed that by increasing the utility of the iPhones, the apps had made the mobile phone industry more like the PC industry, where third-party apps increased the utility of the PCs. The success of the iPhone apps caused Apple to make them the centerpiece of its marketing campaign for the iPhone. Apple began using the App Store to drive the sales of the iPhone, in addition to treating it as a new source of revenue. Some observers believed that customer loyalty toward a handset manufacturer or a wireless carrier would increase as the number of available apps increased. Steve Glagow, Vice President of Orange Partner, a European wireless carrier, said, â€•The more the merrier because it increases demand. It also builds an affinity to the handset so they keep them for a longer period

of time. â€- 30 Andrew Fisher, CEO of music-software maker Shazam, felt that more and more companies would move toward developing apps for the iPhone. He compared Apple to Microsoft, whose Windows OS came to dominate the PC market partly because of the many apps that were developed to run on Windows. He said, â€•That' s the position Apple has established (in the smartphone market). [The more software they offer], the more justifications there are for people to buy iPhones. â€-31 It was also observed that several companies from a number of different industries were building and offering apps to promote their businesses. For example, J&J Vision Care, Inc. (J&J)³² offered the Acuvue eyeSuite app, which in addition to a number of amusing diversions, enabled users to find the nearest optometrist, and also register for a free trial of contact lenses. Mandeep Grover, Marketing Manager, J&J, said, â€•TV advertising is not viable for us so having a medium like the iPhone means we can have a very targeted conversation with consumers. â€-33

THE DEVELOPERS' VIEWPOINT Most analysts believed that Apple had created something which its rivals would find difficult to match -- a dedicated community of developers, working to develop successful apps for the iPhone. Over a period of time, large game development companies, independent consultants, and even ordinary tech-savvy people, competed to build apps that were user-friendly, original, fun, and useful, and had the capacity to attract the iPhone user. This growth in the iPhone developer community took place in spite of the high development cost involved in creating an app, which ranged from US\$ 5, 000-50, 000. Analysts pointed out that most of the apps were being created by small developers, much like in the early days of the internet and computing when

small developer-entrepreneurs created products or services, while working from home or in small start-ups. David Rowan (Rowan), Editor of the technology magazine, Wired UK, said, “What’s good about the App Store is that there’s quite a low barrier to entry, so many of these programmers actually have day jobs and are just working on these apps in their spare time.”³⁴ 29 Luke Bainbridge, “iPhone Apps Are Changing the World of Software and the Way We Work and Play,” [www. guardian. co. uk](http://www.guardian.co.uk), April 12, 2009. 30 Amy Tierney, “iPhone -Phone Apps Fuel Growing Market amid Recession,” [http://iPhone. tmcnet. com](http://iPhone.tmcnet.com), June 09, 2009. 31 Peter Burrows, “The Apple App Monster,” [www. businessweek. com](http://www.businessweek.com), January 15, 2009. 32 J&J Vision Care, Inc. is the market leader in vision correction industry. In 1988, it introduced the world’s first soft disposable contact lens called the ACUVUE Contact Lens. 33 Louisa Hearn, “Business Goes for iPhone Apps,” [www. theage. com. au](http://www.theage.com.au), July 8, 2009. 34 Luke Bainbridge, “iPhone Apps Are Changing the World of Software and the Way We Work and Play,” [www. guardian. co. uk](http://www.guardian.co.uk), April 12, 2009. 8 Apple’s App Store: Strengthening the iPhone’s Competitive Position There were quite a few instances of apps created by small developers going on to become huge successes, earning their creators millions of dollars in the process. However, most developers struggled to earn good returns from their apps. Roger McNamee, a financier with private equity firm, Elevation Partners, said, “On average, the App Store model is not working out for developers.”³⁵ They pointed out that most developers followed the herd in pricing, and priced their apps at around US\$ 0. 99 to gain acceptance and market share. As the apps were priced very low, the only means to earn adequate returns was by gaining volumes,

which most developers failed to achieve. Apart from this, the developers had no proper way to ensure that their apps were noticed, amidst the glut of apps at the App Store. Moreover, in the early days, some of Apple's policies added to the developers' problems. Apple compelled developers to adhere to a Non-Disclosure Agreement (NDA) which prohibited them from discussing tips and tricks useful for developing apps with other app developers.

Analysts felt that Apple imposed the NDA in the belief that it would prevent competitors from obtaining certain sensitive information about the iPhone. However, the NDA was an irritant to the developers, who were often forced to reinvent the wheel. In October 2008, Apple dropped the NDA. Later it even hosted talks by evangelists, and created forums that allowed developers to interact with each other and exchange ideas for improving apps. The process followed by Apple to approve apps also created problems for the developers, many of whom felt it was ambiguous and arbitrary and exposed them to financial risk. According to Apple, it reviewed each submitted app and rejected those that had porn or other offensive content, or which required a large amount of bandwidth³⁶. However, the company did not provide specific guidelines to be adhered to in app development and never clearly explained to developers why certain apps were being rejected. Apple's app approval process was also criticized as being inconsistent. For instance, the app from the creators of TV program South Park was rejected because of '—potentially offensive' content, but the episodes of the show were available for download in the iTunes Store. Apple was also accused of disapproving apps that appeared to compete with its business interests. For example, it rejected a podcaster app for duplicating the '—the functionality of the

Podcast section of iTunes' as it allowed people to download podcasts directly to their devices, without going through iTunes. Many developers were quite vocal in their criticism of the app approval process and stated that after putting in months of effort and spending thousands of dollars, they had no definite way of knowing whether their apps would be accepted or not. They added that their risk was heightened by the fact that they could not sell their apps anywhere else, as the App Store was the only way to distribute the apps. Fraser Spiers, a developer, said, "Apple's current practice of rejecting certain applications at the final hurdle – submission to the App Store – is disastrous for investor confidence. Developers are investing time and resources in the App Store marketplace and, if developers aren't confident, they won't invest in it. If developers – and serious developers at that — don't invest, what's the point?"³⁵ Analysts felt that the lack of clarity in the app approval process could result in disgruntled developers finding other means to sell their apps, and a return to "jailbreaking". On the other hand, despite the stringent app approval process, some apps that were approved by Apple turned out to be controversial later. In April 2009, Apple apologized and then removed the Baby Shaker, an app where the user could shake an iPhone till a cartoon baby on the phone's screen died. The app was severely criticized by parents and child protection groups. The Sarah³⁶ 36 37 Peter Burrows, "The Apple App Monster," www.businessweek.com, January 15, 2009. Generally, cellular service providers like AT&T claimed that smartphone owners used the internet extensively, downloading a large amount of data mainly using apps. They said that about 5% of the users took up to 90% of the 3G bandwidth, thereby clogging the

network and slowing down the service. Simon Augton, “Apple Rejects iPhone Gmail App,” [www. macuser. co. uk](http://www.macuser.co.uk), September 22, 2008. 9 Apple’s App Store: Strengthening the iPhone’s Competitive Position Jane Brain Foundation that conducts research on the Shaken Baby Syndrome stated, “Apple, which notoriously and routinely rejects new apps from developers with a ‘rigorous’ vetting process, nonetheless apparently allowed this horrible application to be sold through its store. Not only are they making fun of Shaken Baby Syndrome but they are actually encouraging it. This is absolutely terrible.”³⁸ Over a period of time, Apple also found it difficult to manage the app approval process due to the large number of apps being submitted. Analysts felt that Apple had not expected the App Store to be so successful and thus had underestimated the resources needed to run the process. It was observed that developers were experiencing significant delays in getting approvals for their apps and in receiving their share of revenue from sales. However, in spite of the uncertain returns and the difficult approval process, the number of developers trying to develop apps for the iPhone continued to increase. As of March 2009, according to research firm Evans Data, almost 20% of wireless developers were developing iPhone apps, up from 8% about six months earlier. In addition, there were some developers who were developing apps exclusively for the App Store, without adapting them for any other OS. Jeff Holden, CEO of Pelago Inc., the makers of a popular iPhone app, estimated that as of early 2009, 13 million iPhone users had downloaded as much software as 1.1 billion other cell phone users. He said, “Why would I ever build for anything but the iPhone. To a developer, what this means is that if he

launches an app for non-iPhones (assuming he has deals with all carriers and has ported to every handset in distribution on which people can download apps), he needs to have a reach 94 times as large as the reach he needs in the iPhone community (which does not require any carrier deals and is via single platform, so no porting) to achieve the same number of downloads.

â€–39 Moreover, it was observed that Apple was working to make the development process easier with each upgraded version of the iPhone OS. Also, while the wireless carriers kept 50% of the revenue earned through app sales, Apple took only 30%. Apple also allowed developers to earn additional revenues by allowing in-app advertising. Natalie Kerris, an Apple spokeswoman, said, â€•Apple has supported App Store developers creating apps to promote their brand as well as utilizing in -app advertising. We' re thrilled with how well this has worked out for both iPhone developers and customers. â€–40 Furthermore, all apps were not sold at a low price. Some apps for photo editing, project management, and exercise routines were priced high, but were still downloaded in large numbers. THE COMPETITION

The success of the iPhone apps in increasing the demand for the iPhone prompted others like wireless carriers, handset manufacturers, and other mobile OS vendors to devise their own App Store-like offerings. There were also several alternative online stores which offered unauthorized apps for jailbroken devices. Rowan said, â€•Nothing keeps still for very long in this field and when you have a booming market dominated by one company, other people are going to look at it. â€–41 To sell apps, wireless carriers like Verizon had the â€–Verizon App Store' and T-Mobile had the â€–Web2go App Store', Sprint encouraged developers to create apps for its network by

providing them with several incentives. In addition, handset manufacturers like Nokia had an app store called the ‘Ovi Store’, RIM had the ‘BlackBerry App World’, LG had the ‘LG App Store’, Samsung had the ‘Samsung Applications Store’, and Palm had the ‘App Catalog’. Nokia was even helping developers get their apps pre-installed on devices, so that customers did not have to download

38 39 40 41 Suzanne Choney, ‘Baby Shaker’ App Pulled From iPhone Store, www.msnbc.msn.com, April 22, 2009. Peter Burrows, ‘App Store Hits 500 Million Downloads’, www.businessweek.com, January 16, 2009. Frank Reed, ‘Have App Will Market with iPhone’, www.marketingpilgrim.com, May 12, 2009. Luke Bainbridge, ‘iPhone Apps Are Changing the World of Software and the Way We Work and Play’, www.guardian.co.uk, April 12, 2009. 10

Apple’s App Store: Strengthening the iPhone’s Competitive Position them. Analysts were of the opinion that this initiative on the part of Nokia would be more profitable for the developers. The mobile OS vendors also had their own app stores. Apps for the Google Android OS were available at the ‘Google Android Market’. Similarly, apps for the Windows Mobile OS were offered at the ‘Windows Marketplace’. The Symbian Foundation that managed the Symbian OS, the world’s most widely used smartphone OS, had plans to build an app mall, rather than an app store. Symbian offered to do the task of processing, certifying, and hosting the apps and promised to give its various partners like handset manufacturers, wireless carriers, etc., their own storefronts within the mall to sell Symbian-certified apps. However, none of Apple’s competitors had the capacity to compete with it on all the three important aspects – superior hardware, a mature software platform,

and a successful store. Analysts pointed out that even though Nokia was the global market leader in the smartphone market, its software was not up to the mark and it lacked a strong distribution channel for its apps. Similarly, Microsoft had the software expertise and a strong online distribution system through its Xbox Live Service (distributing games and other content), but lacked its own device. In addition, although Microsoft had licensed its mobile software to a number of hardware makers, none of them had been able to come up with a device that could challenge the iPhone. Moreover, none of the competitors could match the number and variety of apps available at Apple's App Store. As of mid-2009, the Google Android Market offered 5,000 apps, while the RIM and Nokia app stores offered about 1,000 apps each.

42 OUTLOOK As of mid-2009, the iPhone was very popular and continued to gain market share in the smartphone market. It was in the third position globally, with a market share of 10.8% in worldwide smartphone sales in the first quarter of 2009, which was double its market share of 5.3% in the first quarter of 2008. Nokia remained the global market leader with a 41.2% share, followed by RIM with a market share of 19.9% (See Exhibit III for more on global smartphone sales and market shares). According to Apple, till the end of Q2 2009, about 21.17 million iPhones had been sold worldwide. In Q1 2009, about 3.9 million iPhones were sold, which was more than double the number sold in Q1 2008 (1.7 million units) (See Exhibit IV for quarterly iPhone sales). As of mid-2009, even as cell phone sales were declining globally, the sales of smartphones continued to rise. Apple was likely to be one of the major beneficiaries of this trend. Apple continued to release new updates of its iPhone OS, releasing version 3.0 in June 2009. In

the same month, it released a new model of the iPhone called the iPhone 3GS that had several novel features including a digital compass. According to Apple, it was struggling to meet the high demand for the new iPhone. Peter Oppenheimer, Apple's CFO, said, "We are currently unable to make enough iPhone 3GSs to meet the robust demand, but are working to address this." 43 Analysts felt that Apple's practice of cutting the price of existing models of the iPhone every time a new model was introduced, and its decision to price its latest model at US\$ 199 for the 16GB version and US\$ 299 for the 32GB would further increase the demand for the iPhone. Although Apple did not release any numbers on App Store sales, Piper Jaffray, a brokerage firm, estimated that the App Store had sales of about US\$ 150 million in 2008. This was expected to grow to US\$ 800 million in 2009. Analysts expected the iPhone and the App Store to be Apple's 42 43 Farhad Manjoo, "You Can Live without Apple's new iPhone. But its Getting Harder to live without the App Store." www. slate. com, June 8, 2009. Christopher Nickson, "Apple Admits It Can't Produce Enough Of The iPhone 3GS," http://news. digitaltrends. com, July 23, 2009. 11 Apple's App Store: Strengthening the iPhone's Competitive Position profit engine for several years to come. Sacconaghi estimated that though Apple was only the fifthlargest handset vendor in the world, in the first half of 2009, it accounted for nearly a third of handset industry profits. He said, "Our analysis indicates that Apple's iPhone accounted for only 8% of handset industry revenues but 32% of industry operating profits in 1H09. iPhone's success is akin to Apple's position in the PC industry—where the company enjoys an estimated 25% of industry profits, despite capturing only 6% of industry

revenues. â€-44 Analysts also expected Apple to win about 40% of the smartphone market and 20% of the cell phone market within a few years. Ken Dulaney of information technology research and advisory firm Gartner Group (IT) said, â€•Apple could be at 20% in five years. Every developer I talk to wants to work with them. â€-45 On the other hand, there were others who believed that the battle for supremacy in the smartphone market was far from over, and more changes could be expected in the market. Stuart Carlaw, Vice President and Research Director, market intelligence company, ABI Research, said, â€•Three or four years from now, no mobile device vendor — no matter what their market position today — will be in a â€— comfort zone’. The advent of wider mobile broadband access, the drive to maximize data revenue, the desire to push smartphone operating systems down into mid -tier handsets, and rapid innovations in user interfaces will all make the mobile devices of 2010 radically unlike those of today. â€-46 According to analysts, one of the major challenges for Apple was to ensure that the developers made a healthy profit on the sale of apps, so that they continued to develop apps for the iPhone. Moreover, as of mid-2009, there were 35, 000 applications for approval pending at the App Store, creating a huge problem for Apple, and it needed to find a way to speed up the process. Analysts also felt that some improvements needed to be made in the App Store, like including demos of apps, providing better promotional opportunities for developers, and putting in place a proper app review system. There were also some analysts who were skeptical about whether iPhone apps would be useful in marketing. PJ Fulcher-Meredith, a Communication Director at branding agency ABT, said, â€•I have ditched

more apps than I have got on my phone at the moment. They are very fleeting, so you really have to consider whether it is the best medium to communicate your message. We all know these things can be faddish. The iPhone will still be around in a year's time, but what will the articulation of iPhone apps be like? –47 Additionally, the availability of a large number of apps prompted some analysts to question whether the market for iPhone apps had become saturated. However, others believed that there was still a lot of scope for growth in the apps market. Jeet Kaul, Senior Vice President of Java engineering at Technology Company, Sun Microsystems said, –•We don't know what kinds of apps people will want because demand keeps changing. We're not at that [saturation] point yet. –48 According to analysts, the first era in the mobile industry was all about hardware, but the second era would be about software and the apps, and in this aspect, Apple was the market leader. A former telecom industry CEO said, –•The one with the most apps wins. The most important thing with Apple isn't the iPhone. It's the App Store. –49 44 45 46 47 48 49 John Paczkowski, –•iPhone Claims 32 Percent of Handset Industry Operating Profits, – http://digitaldaily.allthingsd.com, August 4, 2009. Peter Burrows, –•The Apple App Monster, – www.businessweek.com, January 15, 2009. Susan J. Campbell, –•Gadgets -ABI Research: Mobile Devices Biggest Selling Consumer Electronics Products, – http://gadgets.tmcnet.com, August 13, 2008. Louisa Hearn, –•iPhone apps get down to business, – www.smh.com.au, July 8, 2009. Amy Tierney, –•iPhone -Phone Apps Fuel Growing Market amid Recession, – http://iPhone.tmcnet.com, June 09, 2009. Peter Burrows, –•App Store Hits 500 Million Downloads, –•www.businessweek.

com, January 16, 2009. 12 Apple's App Store: Strengthening the iPhone's Competitive Position Exhibit I Growth of iPhone Apps over Time Source: <http://en.wikipedia.org>. Exhibit II Features of the Three Generations of the iPhone

PARTICULARS	ORIGINAL 3G	3GS	RELEASE DATE
	June 29, 2007	July 11, 2008	June 19, 2009
POWER	Samsung 32-bit RISC ARM 1176JZ(F)-S ARM Cortex-A8 v1.0	833 MHz underclocked	620 MHz underclocked to 412 MHz
GPU	PowerVR MBX Lite 3D GPU	PowerVR SGX GPU	
STORAGE CAPACITY (FLASH MEMORY)	4, 8, & 16 GB	8 & 16 GB	16 & 32 GB
MEMORY	128 MB		
DRAM	128 MB	256 MB	
DISPLAY	320 × 480 px, 3.5 in (89 mm), 2:3 aspect ratio, 262,144-color LCD		
SOUND	Two speakers, TRRS headphone jack, 20 Hz to 20 kHz frequency response (internal, headset), microphone		
INPUT	Multi-touch display, headset controls, It also includes: proximity and ambient light sensors, 3-axis digital compass accelerometer.		

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PARTICULARS	ORIGINAL 3G	3GS	CAMERA	2.0 megapixels with geotagging	CONNECTIVITY
Wi-Fi	(802.11b/g), A-GPS; Tri band	7.2 Mbps HSDPA. Bluetooth 2.0+EDR			
UMTS/HSDPA	850, (3GS: 2.1), USB 1900, 2100. 2.0/Dock connector	3.0 megapixels with video (VGA at 30 fps), geotagging, and automatic focus, white balance, & exposure. Quad band GSM 850 900 1800 1900 GPRS/EDGE.			
WEIGHT	4.5 in (115.5 mm) (h) 2.4 in (62.1 mm) (w) 0.46 in (11.6 mm) (d)				
DIMENSIONS	133 g (4.7 oz) 135 g (4.8 oz)				
PRICE AT THE TIME OF LAUNCH	499 and an 8GB model for US\$ 199 and 16GB model for US\$ 299.				

version for US\$ 299. Source: <http://en.wikipedia.org>. Exhibit III Worldwide

Smartphone Sales to End Users - Q1 2008 and Q1 2009 Company 1Q-09 1Q-08 1Q-08 Sales (thousands of units) Market Share (%) Sales

(thousands of units) Market Share (%) Nokia 14, 991. 2 41. 2 14, 588. 6 45. 1
Research in Motion 7, 233. 6 19. 9 4, 311. 8 13. 3 Apple 3, 938. 8 10. 8 1,
725. 3 5. 3 HTC 1, 957. 3 5. 4 1, 276. 9 4. 0 Fujitsu 1, 387. 0 3. 8 1, 317. 5 4.
1 Others 6, 896. 4 18. 8 9, 094. 8 28. 1 TOTAL 36, 404. 4 100. 0 32, 314. 9
100. 0 Source: www. gartner. com. 14 Apple's App Store: Strengthening the

iPhone's Competitive Position Exhibit IV iPhone Sales per Quarter *iPhone
original was discontinued in June 2008. All iPhone 3G sales were reported in
Q4 2008, " Apple Reports Fourth Quarter Results", www. apple. com. Source:

[http://en. wikipedia. org](http://en.wikipedia.org), 15 Apple's App Store: Strengthening the iPhone's

Competitive Position References & Suggested Readings 1. Peter H. Lewis,

•How Apple kept its iPhone Secrets, • [http://money. cnn. com](http://money.cnn.com), January
12, 2007. 2. •iPhone Premieres This Friday Night at Apple Retail Stores,

• [www. apple. com](http://www.apple.com), June 28, 2007. 3. Rich Karpinski, •Apple Comes Full
[http://telephonyonline. com](http://telephonyonline.com), November 5, 2007. Circle on 4. Haroon Malik,

•iPhone Greedily Eats [http://gizmodo. com](http://gizmodo.com), December 16, 2007. North

American 5. Fred Vogelstein, •The Untold Story: How the iPhone Blew Up
the Wireless Industry, • [www. wired. com](http://www.wired.com), January 9, 2008. 6. Tom Krazit,

•The iPhone SDK: The Day After, • [http://news. cnet. com](http://news.cnet.com), March 7,

2008. 7. Olga Kharif, •Aping the iPhone App Store, • [www. businessweek. com](http://www.businessweek.com), July 11, 2008. 8. Matthew Schulz, •Top 5 Enterprise

iPhone Apps, • [www. techcrunchit. com](http://www.techcrunchit.com), July 17, 2008. 9. Ed Felten,

•iPhone Apps Show Industry the Benefits of Openness, • [www. freedom-
totinker. com](http://www.freedom-totinker.com), August 4, 2008. 10. Egan Orion, •Apple Stifling iPhone Apps

Developers, â€– www. theinquirer. net, August 26, 2008. 11. Aidan Malley, â€– iPhone App Sales Growing At Twice The Rate Of iTunes Music, â€– www. appleinsider. com, September 12, 2008 12. Yukari Iwatani Kane, â€– Breaking Apple’s Grip on the iPhone, â€– http://online. wsj. com, March 6, 2009. 13. Andrew Nusca, â€– Top 10 Lessons for iPhone Adoption in the Enterprise, â€– http://blogs. zdnet. com, April 14, 2009. 14. Stan Schroeder, â€– How Much Money Does a Billion iPhone Apps Get you? Not That Much, â€– http://mashable. com, May 14, 2009. 15. Jason Kincaid, â€– The App Store Hype Gets a Dose of Reality, â€– www. techcrunch. com, May 25, 2009. 16. Will Park, â€– Not Surprising: iPhone Doubles Global Smartphone Market Share! â€– www. intomobile. com, May 21, 2009. 17. Jenna Wortham, â€– Apps Are Booming as Companies Seek a Place on Your Phone, â€– www. nytimes. com, June 7, 2009. 18. Farhad Manjoo, â€– You Can Live without Apple’s new iPhone. But its Getting Harder to live without the App Store. â€– www. slate. com, June 8, 2009. 19. Dan Frommer, â€– 4 Reasons Why the iPhone App Store Is Bad News for Google, â€– www. businessinsider. com, June 11, 2009. 20. Emily J. Cappiello, â€– iPhone Apps Need nurturing, â€– www. digitalmediabuzz. com, June 12, 2009. 21. Nathan Eddy, â€– iPhone App Store Puts Apple in Sticky Situation, â€– www. eweek. com, June 27, 2009. 16 iPhone Applications, â€– Market Share, â€– Apple’s App Store: Strengthening the iPhone’s Competitive Position 22. Tricia Duryee, â€– Could iPhone Surpass Nokia as the Smartphone Leader By 2013? â€– http://moconews. net, July 9, 2009. 23. â€– Improving the iPhone App Store, â€– www. iPhoneworld. ca, July 23, 2009. 24. Frederic Lardinois, â€– How did it get so popular? Apple’s App Store Hits 1. 5 Billion Downloads and 65, 000

Apps, â€– www. readwriteweb. com, July 14, 2009. 25. www. apple. com. 26.
www. apple. com/iPhone/ 27. http://developer. apple. com/iPhone/ 28.
http://news. cnet. com. 17