EMTM: Strategic Management of Innovation
Spring 2000

Industry Analysis - Wireless Internet Access
&
Company Analysis - Nextel Communications, Inc.

May 7, 2000

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Part I - Wireless Internet Access Industry

Background and History

After World War II, the need for better 2-way wireless communications on the battlefield funded the development of high quality Frequency Modulated (FM) technology. In the 1970's, when Illinois Bell tested the first cellular system; AT&T was credited with developing the first cellular technology. [1] The cellular system used hand-off technology that enabled the use of multiple low-powered transmitters to better utilize the frequency band. By the mid-1980's cellular telephones became commercially available and were more affordable than previous wireless telephone systems. In the late 1980's, the bigger players like AT&T dominated the market, but some upstarts found opportunities to enter the market. Sprint, MCI Worldcom, GTE, Nextel, CellularOne, plus the Baby Bells like US West and BellAtlantic all offered cellular service.

In parallel with the growth in demand for wireless telecommunications, the demand for Internet access also grew dramatically in the late 1980's throughout the 1990's. In the last few years these two technologies have begun to converge as the demand for high speed Internet access has migrated to an environment where consumers want access anywhere and anytime. As the convergence of wireless and Internet technologies evolves, the devices that link the two will become multipurpose (e.g., wireless telepony, personal digital assistant, web browser, MP3 audio player/recorder, eBooks, etc.). Wireless Internet will fundamentally change the way consumers connect their portable device to the Internet. The capabilities currently built into the wireless and Internet infrastructures will provide a clear advantage to those companies already established in the business. Players like IBM, AOL and other traditional ISP's will partner to deliver a range of solutions.

Technical Overview

The change in regulations and the availability of additional frequencies within the radio spectrum enabled new players with new products to enter the wireless market. Originally, wireless cellular was an analog service (Generation 1). During the 1990's digital services were implemented that greatly enhanced the quality and flexibility of the cellular service (Generation 2). Compared to the first generation analog phones, the second generation digital phones improved reception and provided a wide range of increasingly complex services including voice-mail and call waiting. The third generation wireless phones on the market provide increased data rates that support Internet access.

One of the key issues in the global wireless market is the adoption of uniform standards that will enable a consumer Internet access anywhere on the globe at anytime. Currently, Europe uses a standard known as the Global System for Mobile

Communications (GSM), while Japan established the Personal Digital Cellular, or PDC, standard. However, the United States has not adopted any standard, allowing the market to determine the prevailing technology. This free-market approach has resulted in four separate technologies in the U.S. alone: GSM, TDMA (Time Division Multiple Access), CDMA (Code Division Multiple Access), and iDen. If the vision of global roaming and ubiquitous global wireless Internet access is ever going to be achieved, an international standard must be uniformly adopted. While each standard has its strengths and weaknesses, few companies could afford to rebuild their established infrastructure to accommodate a new standard. Therefore, the companies who will succeed in the future wireless Internet access market will be those who have made investments in the technologies that will survive as a part of the international wireless standard. Unfortunately, since the U.S. government does not regulate wireless technology standards, any attempt to establish a national standard or adopt an international standard will be more difficult in the U.S. than in other nations (e.g., in Europe and Japan, government agencies distribute bandwidth and determine the standards for its transmissions).

Competing Technologies & Industries

Between 1999 and 2003 the number of households with Internet access will grow almost 50%, from 51 million to 68 million. This group will account for 63% of total households in the United States. Similarly, the number of individual users will grow 57%, from 100 million users to 157 million users. This represents an increase from 37% to 56% of the population. The number of households that are wired with traditional access via a phone connection, as well as broadband and DSL access continues to grow. It is estimated that by 2003, 23% (versus the 5% of today) of homes with an Internet connection will utilize a broadband connection. In order to overcome the concern with speed and download capability, ,most broadband users are accessing the internet from work. This has led to a number of new business and traditional service providers researching T1, DSL and Broadband solutions.

Users would rather access the Internet via wired phone lines because it is easier to surf the web using the traditional PC than surf the web using a low bandwidth wireless phone. Although wireless access for road warriors and remote sites continues to grow, they still comprise a limited percentage of the total population accessing the Internet.

The ever-increasing use of hand held devices that also can use wireless technology to access the Internet are an integral part of a user's personal organizational management system. Rather than use their wireless phone, users often would download email and access the Internet via their handheld devices. The birth of a Smart Phone with micro-browsers is the key to answering users needs to access the Internet via their wireless phones.

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[1] "Cellular Radio Telephone," Microsoft® Encarta® Online Encyclopedia 2000

Picture of the Wireless Market

As the wireless web continues to mature, opportunities for growth are illustrated by notable levels of interest in wireless data services among key consumer segments. Groups expressing the greatest desire for new features and services are heavy users, business users, members of upper-income households, and professionals and managers. New users are slightly more likely than are longtime users to want more services. The groups expressing interest in wireless Internet phones are 18 to 34 year-olds, heavy wireless phone users and those likely to upgrade their existing wireless plan.

Forecast & Trends

In 1999 there were approximately 200 million wireless connections and 200 million Internet users. By 2009, industry forecasts project there will be 1 billion wireless connections and 1 billion internet users[2]. The convergence of these two markets/technologies is expected to result in approximately 39.6 million wireless Internet access users[3]. One of the factors driving the technological revolution in wireless communications and Internet access is the unbridled global demand for voice, video, and data services. As wireless companies make more advanced services available to subscribers, the affordability and versatility of a wireless "phones" will undoubtedly create a great opportunity for wireless carriers, equipment manufacturers, and consumers. The expectation is that the global demand for wireless communication and Internet access will give birth to a smart-phone that provides a consumer with all the necessary voice, video, and data communications services anywhere in the world. This technological and consumer market revolution is expected to continue for at least the next 10 years[4].

As companies look to survive in the global market, mergers and alliances have become and will continue to be business as usual. In addition to the merger activity, wireless carriers have recently opened new distribution channels by making their products and services available in more traditional retail outlets; general retail locations, resellers, agents, franchising, and telemarketing. This provides consumers with greater exposure to the product while minimizing the carriers overhead costs; resulting in stimulated growth in demand for wireless services. Through one-rate plans, wireless services have also become more affordable. Consumer affordability boosts penetration and stimulates use by existing customers. With higher wireless penetration in the U.S. (currently at 26% versus 37% in Japan and 50% in Scandinavian countries)[5], carriers will be pressured to adopt the "Calling Party Pays" system, thus eliminating the current need for U.S. wireless customer to pay for both outgoing and incoming calls. Similarly, prepaid services are expected to take off as they have in other countries with

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[2] Source: tele.com, December 13, 1999
[3] Wireless Week , "Into the Internet", 10A+, October 27,1997.

[4] Source: Standard & Poor's Industry Survey – Telecommunications: Wireless (December 1999)
[5] The Economist (October 9, 1999)

relatively high wireless penetration rates. Both of these new trends will have a positive impact on the growth wireless Internet access services by providing more cost effective and flexible billing options.

Opportunities & Threats

As with many technology-based industries, there are current and future opportunities and threats that need to be either leveraged or suppressed to ensure continued success. Below is a list of some opportunities and threats to the wireless Internet access industry that must be monitored on a continuous basis:

Opportunities

- Booming global economy that has led to high growth markets in Asia, Latin America, Western Europe, and China
- Change from an industrial to an informational based society and the associated demand for enhanced communications services
- Wireless is the technology of choice for providing telecommunications services in under-developed countries, impoverished cities, and remote rural villages.
- Growth and application of the Internet will provide the opportunity to develop wireless broadband data services
- Arrival of the third generation (3G) wireless technology within the next 5 years will fuel broadband wireless data services
- Evolution and consolidation of industry standards (e.g., CDMA, GSM, and TDMA) will facilitate global roaming.
- Consumer need for information from one-device, will combine a voice telephone with a computer processor utilizing the functions of wireless communications and the Internet.
- The deregulation and privatization of telecommunications industries across the world ($600 billion annual global revenue) opens up new opportunities for competition.
- The need for field service, sales, dispatch and other mobile workers have a critical need to access product, pricing, and customer information located on corporate intranets.
- Smart phones are predicted to free users from lugging laptops and encourage them to carry the phone as the primary tool of communication.
- Advances in complimentary technologies/industries such as microelectronics, microprocessing, display technologies, and operating systems.

Threats

- Advances in biotechnology and the convergence with communications could displace the need for wireless Internet access services and devices
- Advances in non-phone based Internet access devices (e.g., MP3 audio players, eBooks, and PDAs) could introduce new competition and standards for wireless Internet access and displace current phone providers.
- Competing industries (e.g. wireline telephone and cable companies) will deliver broadband access for data, video, voice, audio, and multimedia applications and suppress the demand for wireless Internet access.

- Coverage/footprint and available bandwidth drive wireless growth. Currently, wireless networks do not have enough infrastructure to handle current demand. As this imbalance continues, bandwidth will become one of the most important ingredients in the delivery mix.
- Regulatory requirements will impact the profitability of the industry.
- Future governmental auctions of the limited radio spectrum could leave some carriers with limited opportunities to be a part of the global market.

Part II - Nextel Communications, Inc.

Introduction

Company Description

Nextel provides a wide array of digital and analog wireless communications services throughout the United States. The company offers a package of digital wireless communication services primarily to business users. Nextel's digital mobile network constitutes one of the largest integrated wireless communications systems utilizing a single transmission technology in the United States. Customers using Nextel's digital mobile network are able to access:

- Digital mobile telephone service
- Digital two-way radio dispatch
- Paging
- Short-messaging service
- The company has also announced plans to offer customers access to digital two-way mobile data and Internet connectivity services.

Nextel has an international piece known as Nextel International Inc., which owns, operates or has interests in wireless communications systems around major metropolitan areas in Asia, Latin America and Canada. The company is headquartered in Reston, Virginia and currently has over 15,000 employees organized in silos by function (Sales, Corporate, R&D, etc.). Communication between the silos occurs primarily through phone and email.

Idea Champions

One of the key individuals involved in the management and direction setting of Nextel is Craig O. McCaw. Craig McCaw and the McCaw family have invested over $965 million and own over 20% of common equity interest in the company. Mr. McCaw has over 20 year experience in the wireless communications business and currently serves as a member of the board of directors. He is also Chairman of the operations committee of the board of directors, which is responsible for key business strategies for the company.

Tim Donahue who was formally the President and COO of the Nextel was recently promoted to President and CEO. Mr. Donahue was also identified as one of the key senior managers who provides direction, vision, and recognizes areas of potential growth for the company. During an interview, one employee indicated that Mr. Donahue has good rapport with staff and will visit them personally by flying out and visiting the different Nextel locations.

Most of Nextel's senior management committee have backgrounds in either the telecommunications industry or have held senior financial management positions in other companies (e.g. Treasurer of Sotheby's Holding Inc., Managing Director of Finance for Dominion Bank). This powerful combination of skill sets including some individuals with marketing

backgrounds (e.g. Barry West, the current Chief Technology Officer was the Director of Marketing at Cellnet, a division of British Telecom) positions Nextel to adapt to the challenges of the wireless communications industry.

Idea Generation and Incentives

There are both formal and informal means of generating ideas or suggestions within the company. The typical suggestion box can be found but more interestingly the company maintains an Intranet web site for employees to submit ideas. These ideas are reviewed daily by Corporate Human Resources and are acted upon on occasion. Three Nextel employees were interviewed and asked about their attitude towards idea sharing within the company and overall satisfaction with employment. All three described Nextel as "Free Spirited", or having a "Healthy environment" in which to work. When further questioned they indicated that employees were free to express ideas and make suggestions to improve both the work environment and the operations of the firm. The interviewees pointed out that high performers were typically rewarded with promotion and salary increase and indicated that performance rather than tenure was the major determinant in succeeding within the company. Other forms of incentives that exist are:

- Attendance Awards
- Service Excellence Awards – awarded quarterly to a top performer group of employees for excellence in sales
- Extreme Awards – for non-sales staff. These awards were typically trips or getaways for the employee and spouse.
- Other awards at the manager's discretion – gift certificate, vacation day, etc.

Competition

Competition at a Glance

The primary wireless industry competitors are broadband personal communications services (PCS) providers and cellular wireless companies, both of which operate networks based on a system of geographic cells. Other players include enhanced specialized mobile radio (ESMR) operators, which concentrate their signals on dispatch channels. As of mid-1999, cellular operators represented more than 90% of the industry's $37 billion in wireless revenues, with PCS and ESMR accounting for the remainder.

Based on 1998 wireless revenues, the largest three domestic operators were AT&T Wireless ($5.4 billion), AirTouch Communications Inc. ($3.9 billion), and Bell Atlantic Corp. ($3.7 billion). In terms of the population of the U.S. markets (or U.S. POPs) that a firm is licensed to serve, the leading wireless companies as of mid-1999 were AT&T Wireless Services Inc. (314.6 million POPs), Sprint PCS Group (234.0 million), and Nextel (165.3 million).

Business Strategies

The key strategy within the industry seems to be bigger is better. Similar to other segments of the telecommunications industry, the players in the wireless community are pursuing mergers, acquisitions, and strategic partnerships to strengthen their competitive advantage in the national and global marketplace. The ultimate goal of this type of competitive strategy is to obtain a national footprint, uniform nationwide calling plans, single brand, bundling of services, and common technology. Some key examples in the industry are Verizon Wireless (Bell Atlantic, Vodafone AirTouch Plc, GTE, & PrimeCo PCS), SBC/Bell South, WorldCom (MCI WorldCom & Sprint), and VoiceStream (VoiceStream Wirless, Omnipoint Corporation, and Aerial Communications, Inc.). Furthermore, several wireless ventures are issuing initial public offerings (IPOs) to generate the capital necessary to expand their services nationally and globally (e.g., AT&T Wireless and Verizon).

Nextel's Market Attractiveness

The market for the wireless devices and services can be broken up into three distinct segments; longtime users (60%), personal safety/light users (25%), and business/heavy users (13%). Industry studies have shown that the most important factors driving the purchase of wireless devices and services in these segments are value, price, and features respectively (Figure 9). The demand for wireless data services is concentrated in the business/heavy user market segment (Figure 10). To satisfy this customer demand, many of the major competitors in the wireless industry, including Nextel, are rolling out wireless Internet access services. These services target those mobile customers who want or need to send and receive e-mail, update their schedule, track their stock portfolio, confirm their flight, check the latest news, weather and sports, and even access their customer database-all on their phone's display screen-with no other connections. Typically, these Internet access services are provided for an additional $10 per month plus airtime and can be accessed via a special wireless phone, laptop computer, Palm Organizers, and Windows CE devices. Aside from the typical consumer, these services also target business customers with a need for financial transaction processing, public safety, alarms and telemetry, as well as field service and dispatch. Carriers currently offering this type of wireless Internet access service include but are not limited to Nextel Communications, Verizon Wireless, Sprint PCS, and VoiceStream Wireless.

As demand increases, Nextel must ensure that it can distinguish itself with superior service and performance. As applications and devices are developed, more and more capacity will be demanded of the Nextel network. It is predicted that online services will continue to grow, spreading into the wireless world. Computers, banking, shopping, video-conferencing are all future services that could potentially flow across Nextel's network. Nextel must keep ahead of the demand curve and not allow the performance of their service to diminish.

Nextel's Competitive Advantage

Nextel's strongest competitive advantage is its technology. Their fully integrated, all-digital nationwide wireless network serves 96 of the top 100 markets in the United States (350 cities). Their network and underlying technology enables Nextel to offer all-in-one business solution that combines digital cellular, voice mail, text/numeric paging capabilities, and Internet access.

Nextel has differentiated itself from the competition through their investment in a patented/proprietary technology that is used to provide a digital two-way radio feature (SMR) that allows subscribers customers to instantly contact one or many co-workers at the touch of a button; Direct Connect® & Nextel Business Networks®. These services, which started out as a blue-collar communications offering that allowed access to the public telephone network, targets small and large businesses (e.g., plumbers, swimming pool service firms, delivery companies). While the Direct Connect service allows subscribers to communicate with employees of the same firm, Nextel Business Networks extends the service across numerous firms in a community of interest (e.g., construction, agriculture, boating, real estate). Nextel has found that the Direct Connect and Business Networks subscribers tend to stick around and not jump to other services at the slightest technical flicker. This makes for low churn and keeps Nextel's cost per potential subscriber at $28, less than half the comparable figure for the cellular industry.

Another competitive advantage that Nextel possesses is their ability to lead the industry in offering innovative services to their subscribers. For example, Nextel was one of the first in the industry to offer one-second rounding after the first minute and no roaming charges. Another example is the Nextel Worldwide (SM) Service that was recently launched allowing subscribers to roam between the United States, Europe, and a number of countries using a single phone. More importantly, Nextel was "first to market" with their introduction of a wireless Internet access service (Nextel Online) in April 2000. Microsoft's MSN is co-branding with the company to provide this service, while Nextel is using a strategy of third party vendors to develop a host of Internet applications for the mobile phones. This allows Nextel to offer many additional services without moving resources away from their core business.

Strategic Planning

Unfortunately, the bigger Nextel gets, the greater the threat from even bigger competitors, such as AT&T and Sprint PCS. These rivals are beginning to woo the business customers that Nextel has won over with features such as "direct connect," which allows mobile employees to communicate easily with their colleagues. Nextel needs capital to maintain and expand their competitive advantages. In 1999 Nextel was negotiating deals with both MCIWorldCom and Microsoft Corp. to

acquire some investment capital. While the MCIWorldCom deal did not complete, Microsoft agreed to invest $600 million in Nextel to help it expand its digital network and offer a full range of Internet services by the end of 1999.[6]

One of the factors that will drive wireless Internet access demand will be the availability software and devices to run the next generation wireless devices. Lack of professional programmers to deliver applications and a lack of standards to allow interoperability between networks and devices could potentially reduce the demand for services like Nextel's Direct Connect. Since Nextel is dependent on the growth of the devices and applications that utilize its network, Nextel must support innovation in the developer community as well as the standards bodies to ensure devices and applications will run on the Nextel network. As more applications and devices become available and compatible with Nextel's network, the demand for Nextel's services will increase. Therefore, Nextel should attempt to influence the pipeline of wireless communication software and equipment development by entering into strategic alliances/partnerships and joint marketing arrangements with software and device manufacturers. Nextel should also consider working with Internet providers like AOL, Yahoo, E*Trade, Ebay and other E-Commerce companies that address the needs of the wireless Internet community, making those services available to Nextel's customers.

Nextel's successes can, in part, be attributed to their strategic alliance/partnership with Motorola Corp. This alliance provided Nextel with the proprietary Motorola integrated Digital Enhanced Network (iDEN) technology that supports many of Nextel's most popular services; the popular two-way radio dispatch, Internet access, and Worldwide Service. While Motorola owns approximately 20% of Nextel's outstanding shares and has participated in formal agreements since 1993, any disagreements between the two could have serious impacts on Nextel's success. In order to mitigate against potential single source problems, Nextel has recently made attempts to get licensing agreements between Motorola and a Korean based manufacturer. This is a prudent move, and should further strengthen Nextel's strategic position.

The evolution of standards for the mobile phone industry in the United States could be a concern for Nextel. However, there doesn't seem to be a serious threat of government intervention, and a sudden convergence of standards within the industry seems equally unlikely. The market appears to be moving more toward compatible technologies in the U.S. as opposed to one single standard. Motorola's i2000 phone is a good example, and Nextel should expect similar products by its competitors to follow shortly.

With the strength of Nextel's network and services compounded by the forecasted demand for their services, many financial analysts predicting as much as a 52% gain in Nextel's share price in 2000. As such, Nextel is in a position to either stand alone in increasing good health or be someone's very desirable merger partner.

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[6] *Sarah Schafer* **, Nextel Hears Its Calling: The Internet,** Washington Post, June 11, 1999; Page E01

APPENDIX

Part I – Wireless Internet Access Industry Analysis

Figure 1. Wireless Industry Forecast Figures

The telecommunications industry is currently experiencing a trend toward consolidation as companies realize they must compete in multiple sectors of the market in order to survive. The table below lists some recent mergers that illustrate the trend.[7]

TOP TELEPHONE MERGERS

(As of February 2000)

COMPANIES	AMOUNT (BIL. $)
Vodafone, Mannesmann (pending)	183.1
MCI WorldCom, Sprint (pending)	110.1
SBC, Ameritech	109.1
Bell Atlantic, GTE (pending)	98.2
Vodaphone, Airtouch	66.0
AT&T, MediaOne (pending)	58.0
WorldCom, MCI	51.0

Source: Company reports.

Figure 2. Wireless Industry Forecast Figures

WIRELESS INDUSTRY FORECAST

(Cellular and PCS)

	1992	1993	1994	1995	1996	1997	1998	F1999	F2000
*Market penetration (%)	4.3	6.2	9.2	12.9	16.6	20.0	25.0	30.0	35.0
Subscribers (in thousands)	11,033	16,009	24,134	33,786	44,043	55,312	69,200	86,500	108,125
Annual growth rate in subscriber base	46.0	45.1	50.8	40.0	30.4	25.6	25.0	25.0	25.0
Average monthly revenues per subscriber	68.68	61.48	56.21	51.00	47.70	42.78	39.43	37.00	35.00
Industry revenues (mil.$)	7,823	10,892	14,230	19,072	23,635	27,486	33,133	39,800	47,975
Annual growth in revenues	37.0	39.2	30.6	34.0	23.9	16.3	20.5	20.0	20.0

*Calculated by S&P based on Census Bureau data. F-Forecasts by S&R PCS-Personal communications services.
Source: Cellular Telecommunications Industry Association.

[7] Wohl, Philip D., Standard & Poors, *Telecommunications: Wireline*, March 30, 2000

Figure 3. Wireless Industry Growth

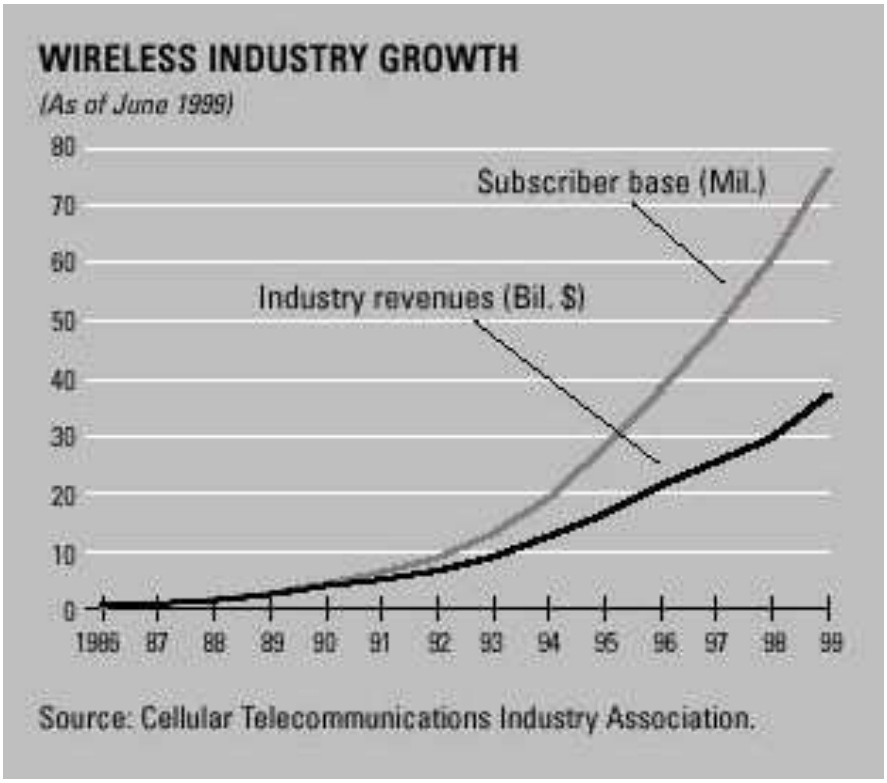


Figure 4. U.S. Wireless Subscribers

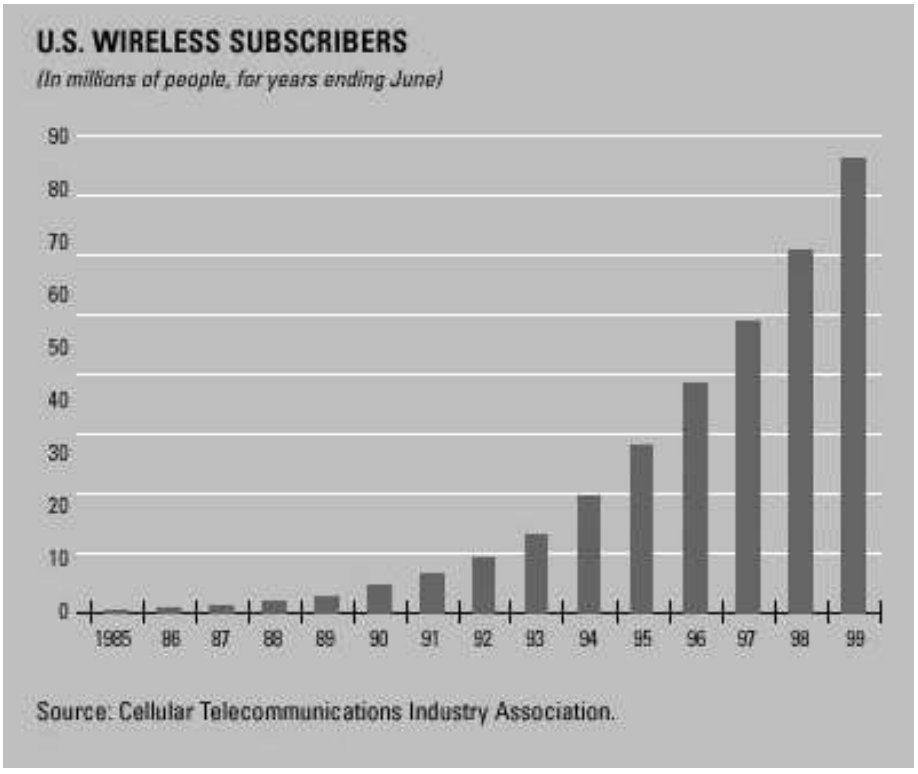


Figure 5. Learning Curve. Increase in Volume Decreases Cost

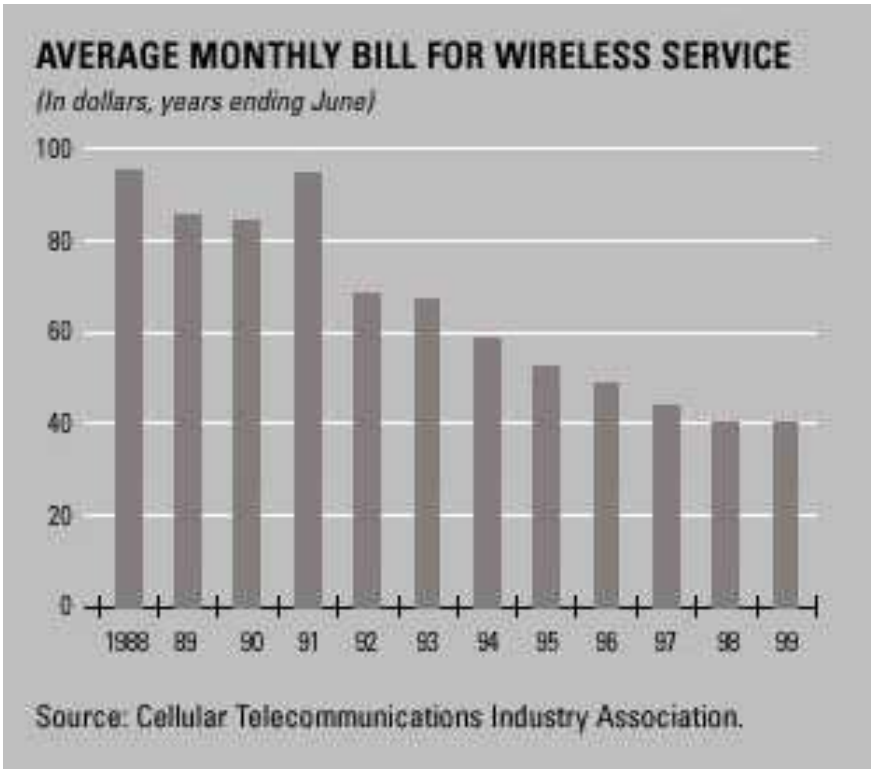


Figure 6. User's Level of Interest

The graph below shows users' level of interest in selected data services that could be available through wireless phones. Users are most interested in wireless data services that enhance communication and productivity. When comparing interest levels in various wireless data services between those who use their wireless phones mostly for business and those who use them mostly for personal needs, studies show that business users are riper for the next generation of wireless phones than are personal users. Some of the key concerns that might prevent acceptance of wireless data services are heavier phones, switching wireless service providers and additional costs of service.

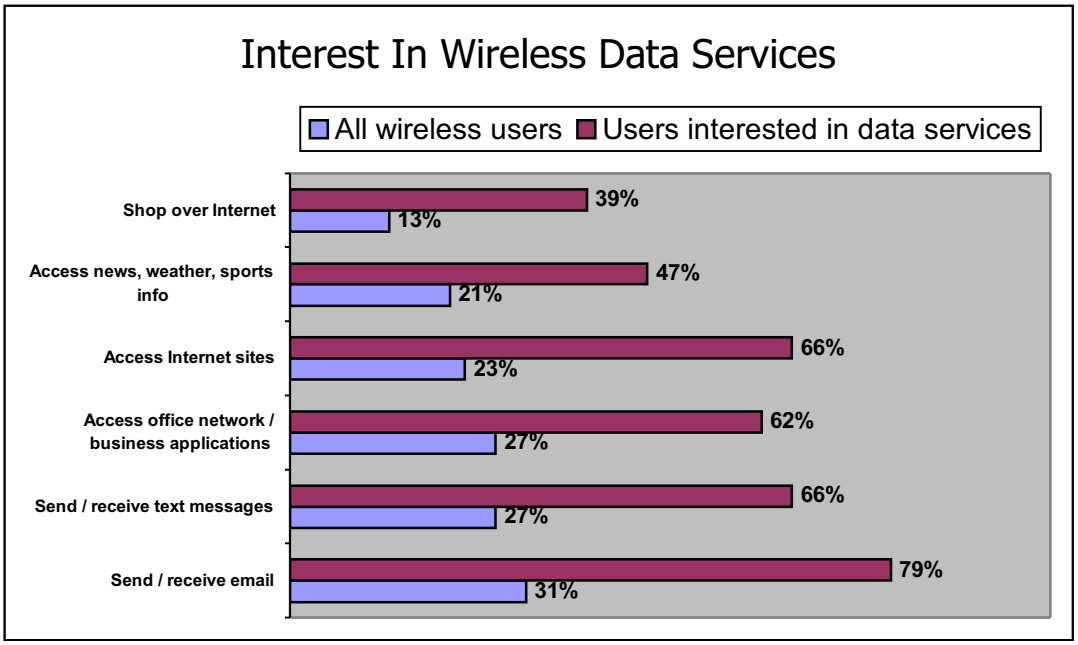


Figure 7. Wireless Industry Competition

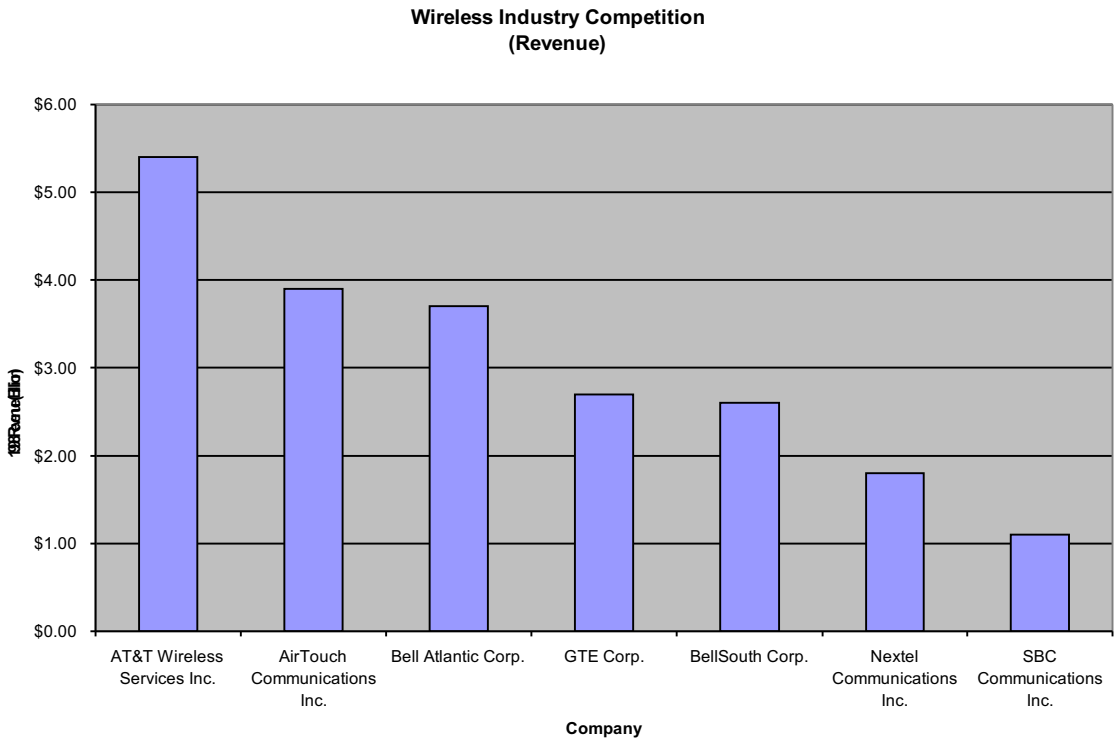
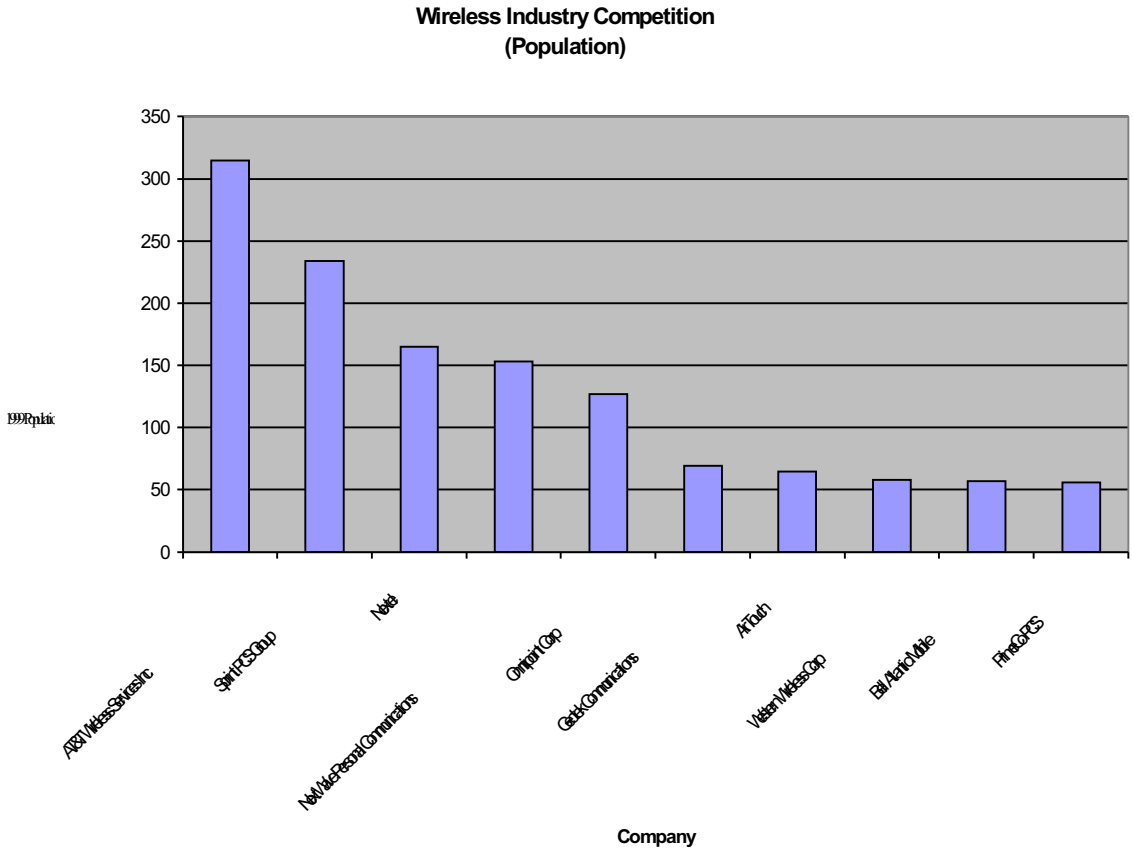


Figure 8. Wireless Industry (Population)



Part II – Nextel Communications, Inc. Analysis

Wireless Industry – Mergers & Acquisitions

Verizon Wireless – On September 21, 1999 Bell Atlantic Corp., Vodafone AirTouch Plc, GTE Corp., and PrimeCo PCS announce a definitive agreement to create a new wireless business with a national footpring, single brand, and common digital technology (CDMA). This new venture is by far the largest wireless provider in the nation. It is valued at over $70 billion, serves more than 28 million wireless and paging customers and will cover more than 90% of the U.S. population in 96 of the top 100 U.S. wireless markets (232 million potential customers). On April 4, 2000, with the official launch of Verizon Wirless, Bell Atlantic Corp. and Vodafone AirTouch Plc also announced they were planning an initial public offering of part of their wireless business.

SBC Communications/Bell South Corp. – On April 5, 2000 BellSouth Corporation and SBC Communications Inc. announced they will combine their U.S. wireless operations, creating a powerful new wireless company to compete nationwide in the exploding wireless voice and data businesses. The new company will be the second largest wireless carrier in the United States. It is valued at over $10.1 billion, serves more than 16.2 million subscribers and will cover more than 70% of the U.S. population in 40 of the top 50 U.S. wireless markets (175 million potential customers). An IPO is not part of this transaction, but the new wireless company will have a separate capital structure allowing it to issue debt and stock to the public to generate additional cash to fuel its national expansion and product development efforts.

MCIWorldCom/Sprint – On March 20, 2000 MCIWorldCom and Sprint announced that the boards of directors of both companies have approved a definitive merger agreement. The combined company, to be called WorldCom, will be a formidable wireless competitor in the United States with more than 4 million PCS subscribers and 1.7 million paging and advanced messaging customers. It is valued at over $10 billion, and provides service in all 50 states with access to over 270 million potential customers.

VoiceStream - On February 24, 2000 VoiceStream Wireless Corporation, Omnipoint Corporation and Aerial Communications, Inc. announced that their shareholders have overwhelmingly approved the mergers between VoiceStream and Omnipoint and VoiceStream and Aerial. The VoiceStream, Omnipoint, Aerial combination will create one of the largest GSM (Global Systems for Mobile Communications) companies worldwide with more than 200 million licensed pops. VoiceStream will have licenses to provide service to over 175 million people with operating systems in 17 of the top 25 markets."

Wireless Internet Access Services

Verizon – Web Access Service ($9.95/month). These Services are based on either Code Division Multiple Access (CDMA) data or Cellular Digital Packet Data (CDPD) wireless IP data. Marketed as efficient, secure, reliable, cost-effective, with a wide coverage area. Access devices include digital phones, laptops, Palm Organizers, and Windows CE devices. The product line also targets industry applications for financial transaction processing, public safety, alarms and telemetry, as well as field service and dispatch. E*trade partnership.

Sprint PCS – Sprint PCS Wireless Web ($9.99/month) Connect your wireless Internet ready Sprint PCS Phone to your laptop PC, handheld, or palm-sized computer to surf the Internet, send and receive e-mail and more, anytime, without needing a wall-mounted phone jack. Partnered with Yahoo for web updates. This Option lets you use your calling plan minutes for both clear calls and accessing the wireless internet, and you get 30 Sprint PCS Wireless Web updates included. Each additional minute of Sprint PCS Wireless Web access costs $0.25. Each additional update costs $0.10.

VoiceStream – InfoStream lets you access all the critical information you need from your laptop computer using only your VoiceStream phone acting as a "wireless modem. From anywhere on our digital network, InfoStream offers wireless access to E-Mail, your office computer network, fax machines, and the Internet.

Nextel Market Attractiveness

Figure 9. Wireless Market Segmentation

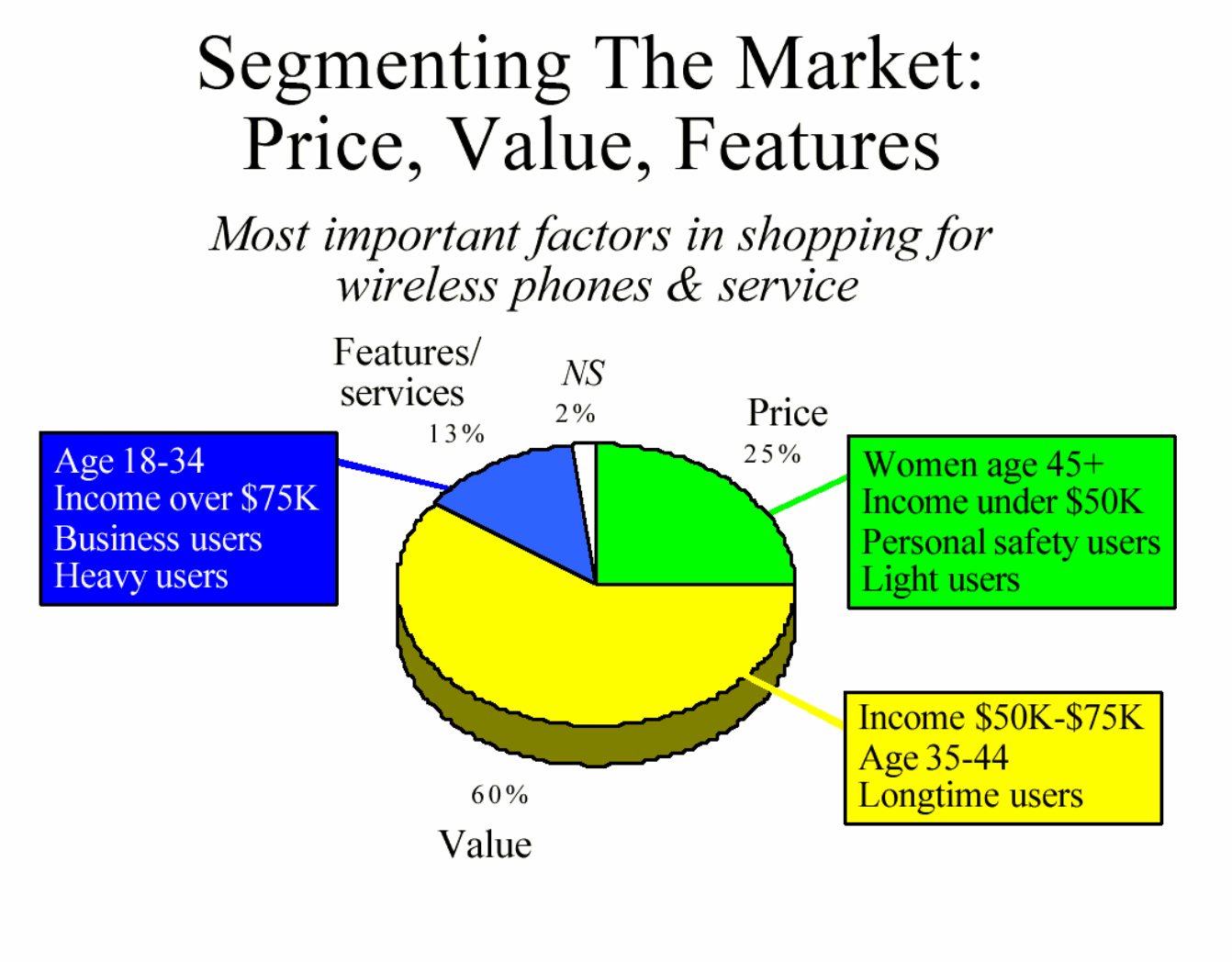


Figure 10. Interest In Wirelss Data Services