



## Apple's iPhone in China: Can Apple Cash in on the World's Biggest Mobile Market?

"We think of China as a never-ending fountain of revenue, but there are far more people in China who cannot afford this technology than there are those who can."<sup>1</sup>

–Philip M. Nichols, Wharton Professor, Legal Studies and Business Ethics

"There's this upper crust of people who have a lot of money and they want the latest accessory. The iPhone is the latest accessory."<sup>2</sup>

– Marshall Meyer, Wharton Professor, Management Studies

After making a place for itself across several countries, Apple iPhone entered China to tap the world's biggest mobile market. On August 28<sup>th</sup> 2009, Apple entered a non-exclusive deal<sup>3</sup> with the second-largest mobile carrier of China – China Unicom – to sell iPhones in China. Although, Apple is optimistic about the Chinese smartphone market, players like Nokia and Motorola, which already have a strong foothold, are bound to give a tough competition to the brand. Moreover, Apple iPhone entered China lately (after 2 years of US launch), which led to unofficial distribution of iPhones in Chinese grey market. Hence the questions arises – Can Apple iPhone grab a share in the Chinese mobile market, by competing with the existing players? Will grey market be a boon or bane for Apple iPhone's sales?

### Mobile Handset Market in China

"To be happy in this world, first you need a cell phone and then you need an airplane. Then you're truly wireless."<sup>4</sup> As runs the cliché, mobile phones brought in happiness in the lives of billions of people across the globe by connecting them. While developed nations have already fostered mobile

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<sup>1</sup> "The iPhone in China: Will Apple Connect with the World's Biggest Mobile Market?", <http://knowledge.wharton.upenn.edu/article.cfm?articleid=2335>, September 16<sup>th</sup> 2009

<sup>2</sup> Ibid.

<sup>3</sup> The intellectual property rights granted to several licensees within the same field.

<sup>4</sup> "Quotes about cell phones", [http://en.thinkexist.com/reference/quotes\\_about\\_cell\\_phones/](http://en.thinkexist.com/reference/quotes_about_cell_phones/)

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This case study was written by Naga Sandhya Ramadugu under the guidance of Syed Abdul Samad, IBSCDC. It is intended to be used as the basis for class discussion rather than to illustrate either effective or ineffective handling of a management situation. The case was compiled from published sources.

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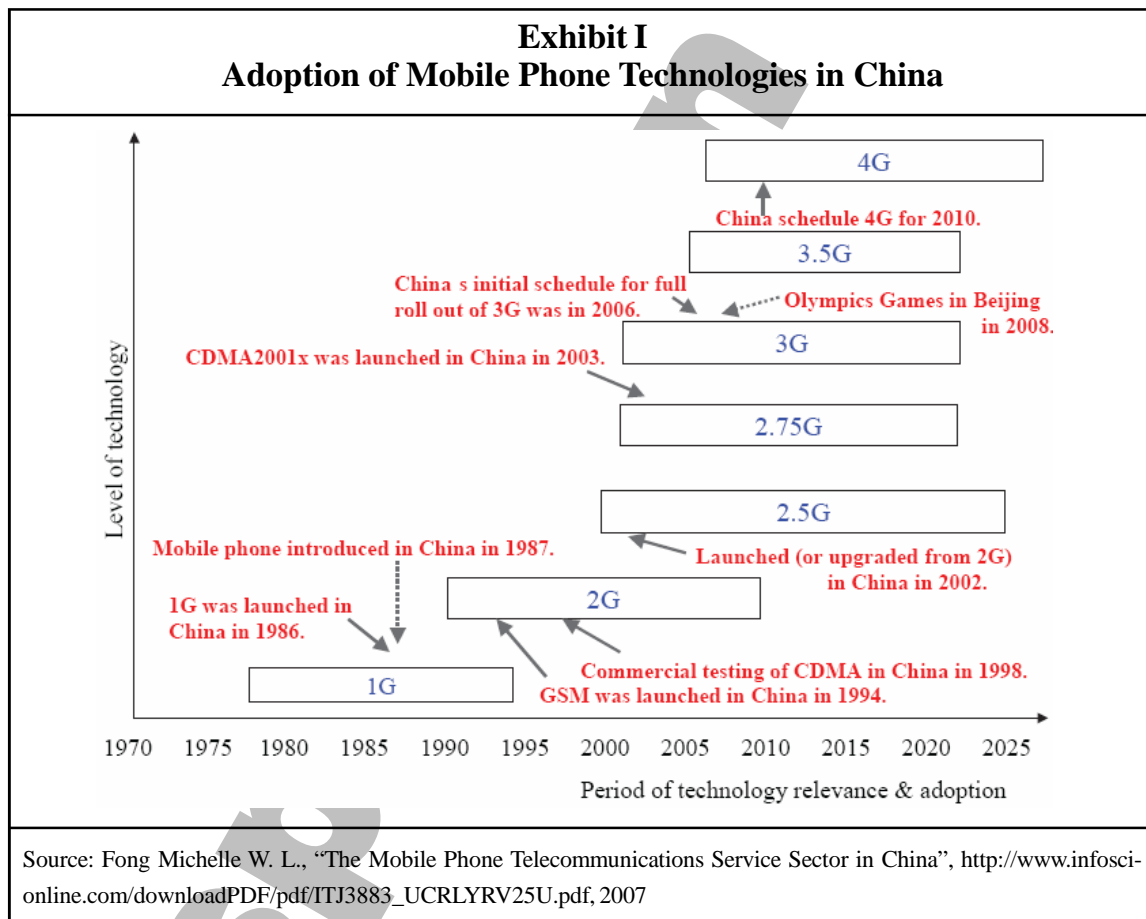
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growth, emerging economies are not far behind in embracing mobile services and technologies. China is one such emerging nation exhibiting an incredible speed in the development of its mobile telecommunications.

China's foray into mobile services took place in 1980s. Although, China started offering wireless telecommunication services in 1981, its official entry came about in 1987, in Guangdong province. Mobile communications in China, launched by Ministry of Post and Telecommunication (MPT)<sup>5</sup>, began with Total Access Communication System (TACS) and Frequency Division Multiple Access (FDMA) – the 1<sup>st</sup> generation (1G) wireless telephone technology based on analogue standards (Exhibit I). However, the equipment for supporting the mobile technology was imported from foreign firms – US-based Motorola (the foremost player in Chinese mobile handset market, with over 80%<sup>6</sup> market share) and Sweden-based Ericsson, the only suppliers of analogue cellular systems during those times. Ever since the launch of cellular services in China, the demand for these services has grown rapidly (Exhibit II).



<sup>5</sup> MPT was the then regulating authority of Chinese telecommunication industry and exercised monopoly till 1994.

<sup>6</sup> Farhoomand Ali, et al., "Developments in China's Mobile Handset Industry", [http://www.acrc.org.hk/promotional/promotional\\_shownote.asp?caseref=888](http://www.acrc.org.hk/promotional/promotional_shownote.asp?caseref=888)

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<b>Exhibit II</b>			
<b>Growth of Mobile Phone Subscribers in China from 1987 to 2006</b>			
<b>Year</b>	<b>Subscribers</b>	<b>Year</b>	<b>Subscribers</b>
1987	700	1997	14,000,000
1988	327	1998	23,800,000
1989	9,805	1999	43,000,000
1990	18,319	2000	86,500,000
1991	47,544	2001	145,000,000
1992	176,943	2002	206,620,000
1993	638,268	2003	268,690,000
1994	156,778	2004	334,820,000
1995	3,630,000	2005	393,430,000
1996	6,850,000	2006	437,480,000

Compiled by the author

Post-1994, mobile services received a boost as the Chinese telecommunications industry underwent transformation. China United Telecommunication Corporation (China Unicom) was incorporated to improve the quality of telecom services, dissolve the monopoly of MPT and enhance competition. China Unicom introduced Global System for Mobile (GSM) technology, the 2<sup>nd</sup> Generation (2G) digital cellular system for mobiles. Furthermore, MPT was made the nation's telecommunications regulator and its operating division was registered as a separate entity, called China Telecom, with services in fixed-line, mobile, paging and satellite telecommunications. Consequently, China Telecom and China Unicom offered mobile services in China. However, after 1997, the industry further transformed with a series of reforms and restructurings, intended to encourage healthy competition among the players.

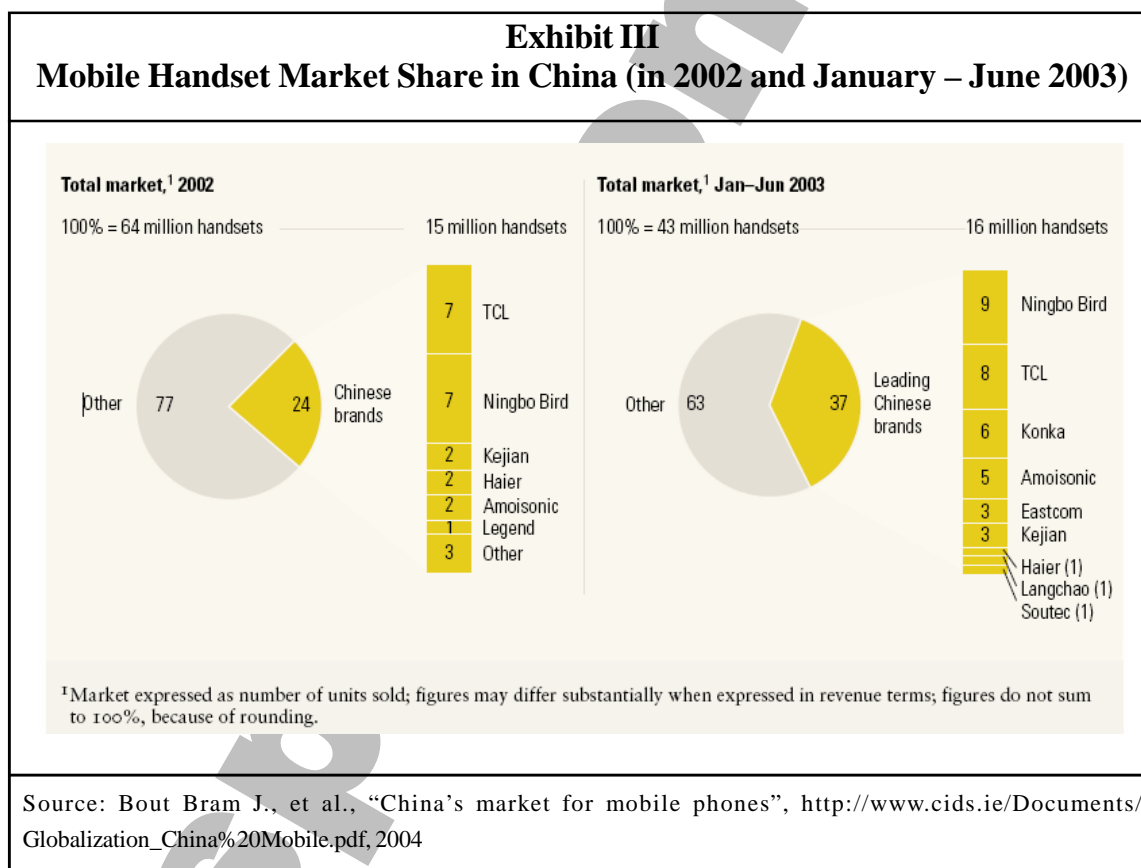
As a result of the reforms, MPT was replaced with Ministry of Information Industry (MII) and China Telecom was diversified into several businesses, based on its functional areas. The mobile service business of China Telecom was transferred to China Mobile Communications Corporation (China Mobile). Thereafter, China Mobile and China Unicom, the state-owned companies, operated in the Chinese mobile telecom market with duopoly structure. In 1998, China Unicom merged with Great Wall Communications Limited<sup>7</sup>, which was into digital Code Division Multiple Access (CDMA) technology and started CDMA services. During this period, the mobile subscriber base grew for both GSM and CDMA technologies increasing the mobile handset supply in Chinese mobile market. For a span of 4 years, from 1996, the global handset brands like Motorola, Ericsson and Nokia held

<sup>7</sup> The Great Wall Communication Limited was established by People's Liberation Army and MPT to develop CDMA mobile service for the Chinese army.

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80% of the market share, while the remaining 20% was captured by other foreign brands like Philips, Siemens and Alcatel.<sup>8</sup> Most of these brands also took up localised production and Research and Development (R&D) activities to fulfil the demand.

Since 1998, domestic players too joined the competition. The long-term dominance of Motorola, Ericsson and Nokia, both in terms of handset manufacturing and infrastructure, was challenged by local brands like Ningbo Bird, Konka and TCL (Exhibit III). The government encouraged domestic mobile handset makers by issuing licenses for manufacturing both GSM and CDMA handsets. In 2004, 49 licenses were issued comprising of 30 GSM (issued to 13 joint venture companies and 17 domestic enterprises) and 19 CDMA licenses (all were granted to domestic enterprises except one for Motorola).<sup>9</sup> However, as domestic companies lacked telecom expertise, they partnered with Korean, European and Japanese companies to acquire the technical knowledge and thereby improve competitive ability (Exhibit IV). The local brands designed handsets similar to the foreign brands and offered them at low prices. They also developed sales channels of their own – unlike foreign brands (like Motorola), which relied on wholesale agents for marketing and distribution – and focused on rural areas.



<sup>8</sup> "Developments in China's Mobile Handset Industry", op.cit.

<sup>9</sup> Ibid.

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<b>Exhibit IV</b>	
<b>The Source of Technology for Local Handset Makers</b>	
<b>Company</b>	<b>Source of Main Technology (for GSM and CDMA)</b>
Ningbo Bird	Sagem Philips, Sewon, LG, Pantech, Telson Electronics(Korea)
TCL	Sagem, Pantech, Standard Telecom(Korea)
Haier	Sewon, Standard Telecom(Korea) Sendo
ZTE	Maxon, LG, E-Ron Tech, Giga Telecom(Korea)
Konka	Acer, Telson Electronics, Pantech&Curitel(Korea)
Eastcom	Sewon, LG, E-Ron Tech, Giga Telecom(Korea)
Xoceco(Xiahu)	Panasonic, Sewon
Kejian	Maxon, Samsung(Korea)
CEC	Philips, E-Ron, Standard Telecom(Korea)
Capital	Kenwood, LG, Pantech&Curitel(Korea)
Soutec	Motorola , Pantech, Sewon Telecom, Standard Telecom(Korea)
Datang	LG, Standard Telecom(Korea)
Source: Liu Xielin, "China's Development Model: An Alternative Strategy for Technological Catch-up", <a href="http://www.rieti.go.jp/en/events/bbl/05032201.pdf">http://www.rieti.go.jp/en/events/bbl/05032201.pdf</a>	

On the other hand, network and telecommunications equipment suppliers like Huawei competed with foreign firms by making huge investments on R&D. However, the dominant position of local brands did not last long (Exhibit V) as foreign players revised their strategies. With focus on low-end handsets, they catered to consumers of all segments. Foreign brands also reduced the prices of mobile handsets and promoted colour-screen phones with many other features. Expressing his views on the slowdown of local brands, Koichiro Kimura (Kimura), researcher at Institute of Developing Economies (Japan), stated that the competition in the mobile industry moved from sales promotion to product development capability, resulting in the setback of local firms that focused on selling and distribution.

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<b>Exhibit V</b>								
<b>The Market Shares (in %) of Mobile Handset Brands (1999 to 2006)</b>								
<b>Brands</b>	<b>Years</b>							
<b>Foreign-affiliated Firms</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
Motorola	39.4	35.4	29.3	28.5	9.3	8.9	13.3	24.1
Nokia	32.3	25.1	22.3	18.2	11.1	15.0	23.8	33.6
Siemens	6.0	8.1	9.7	4.7	2.5	1.4	NA	NA
Sony Ericsson	6.4	9.2	6.5	2.1	1.1	2.9	4.1	7.4
Samsung	NA	NA	NA	NA	NA	8.3	9.6	9.0
Philips	NA	NA	NA	NA	NA	2.8	NA	NA
<b>Local Firms</b>								
Bird	NA	3.2	6.4	9.9	14.2	10.2	6.1	4.1
TCL	NA	1.0	3.0	8.7	11.2	6.5	3.7	1.9
Konka	NA	NA	NA	NA	6.2	5.8	2.8	2.5
Lenovo	NA	NA	NA	NA	NA	NA	NA	4.7
Amoi	NA	NA	NA	NA	NA	NA	NA	4.1

Source: Kimura Koichiro, "Growth of the Firm and Economic Backwardness: A Case Study and Analysis of China's Mobile Handset Industry", <http://www.ide.go.jp/English/Publish/Download/Dp/pdf/130.pdf>, December 2007

Kimura further added, "First there has been a change in the competition strategy of the foreign-affiliated firms, which have widened their product range to cater for the low end of the market and which have strengthened their sales forces in provincial cities and rural areas. Second, new local firms have continuously entered the market. The entry of local firms who have been following the same strategy as those already present has greatly intensified competition among all of the Chinese firms. Third, there has been a change in consumers' preferences. Replacement demand has increased, and moreover consumers have begun to prefer advanced, multifunctional handsets to ones with a narrow range of functions. Fourth has been a diversification in sales channels. Large electronics stores and telecommunications carriers also have begun to sell handsets through their retail outlets. These changes have reduced the advantage hitherto enjoyed by local firms in respect of sales networks and marketing."<sup>10</sup> Because of their differentiating strategies, by 2007, foreign brands – Nokia, Motorola and Samsung – held 61.4%<sup>11</sup> shares in Chinese mobile phone market.

<sup>10</sup> Kimura Koichiro, "Growth of the Firm and Economic Backwardness: A Case Study and Analysis of China's Mobile Handset Industry", <http://www.ide.go.jp/English/Publish/Download/Dp/pdf/130.pdf>, December 2007

<sup>11</sup> "Nokia, Motorola and Samsung Take 61% of China's Mobile Phone Market", <http://www.cellular-news.com/story/25962.php>, September 11<sup>th</sup> 2007

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In 2008, the Chinese telecommunications industry once again underwent restructuring to enhance the competition. The significant changes of the restructuring include creation of three full-service state-owned telecom operators – China Mobile, China Unicom and China Telecom – and issue of licenses for 3<sup>rd</sup> generation (3G) mobile technology. Following the issue of 3G licenses, all the telecom operators began investing in 3G networks with each player emphasising on different standards. For instance, China Mobile focused on development of Time Division Synchronous Code Division Multiple Access (TD-SCDMA) network; China Unicom towards Wideband Code Division Multiple Access (W-CDMA) network and China Telecom on CDMA2000 networks.

To benefit from the opportunity, mobile handset manufacturers began launching models meeting the 3G standards. For instance, in 2009, Samsung planned to come up with 15<sup>12</sup> mobile phone models that would support 3G services offered by all the Chinese telecom operators. Meanwhile, telecom operators were also tying up with handset manufacturers to further promote 3G services in China. For instance, China Mobile, to strengthen its position in Chinese mobile market on 3G services, is planning to fund the R&D activities of mobile phone brands like Nokia, Samsung, Sony Ericsson and LG. According to Chairman, Wang Jianzhou of China Mobile, the company plans to fund R&D to improve its 3G service and develop its range of products.<sup>13</sup>

### Chinese Consumer Preferences

The 3G services in China are also expected to receive huge boost from consumers. According to Michael Zhan, research director of CTR Market Research (CTR), a market research company in China, “Users and potential users see that 3G represents the fashionable and innovative high-technology, and it would enrich their experience through its multimedia functions.”<sup>14</sup> For the same, CTR conducted a survey in 10 big cities of China and revealed many interesting findings on Chinese consumers’ preference of telecom operators (Annexure I). According to this survey, though China Mobile is displaying higher ability in retaining and attracting consumers, every telecom operator has its own advantages in offering 3G services. Understanding the Chinese consumer in case of mobile handset device preference is however, challenging for the mobile phone brands. Chinese consumers are usually price-conscious and at the same time show equal interest in advanced mobile phone features (Exhibit VI).

<sup>12</sup> “Samsung to bring 15 3G handset models to China”, <http://www.hktdc.com/info/vp/a/elec/en/1/6/1/1X05UPDK/Electronics—Electricals/Samsung-to-bring-15-3G-handset-models-to-China.htm>, May 15<sup>th</sup> 2009

<sup>13</sup> “China Mobile seeks tie-up with handset manufacturers to boost 3G platform”, <http://wirelessfederation.com/news/14614-china-mobile-seeks-tie-up-with-handset-manufacturers-to-boost-3g-platform/>, September 3<sup>rd</sup> 2009

<sup>14</sup> Zhan Michael, “China telecom market may reshuffle as consumers show low loyalty toward 3G operators”, [http://www.chinadaily.com.cn/bizchina/2009-06/04/content\\_8247450.htm](http://www.chinadaily.com.cn/bizchina/2009-06/04/content_8247450.htm), July 4<sup>th</sup> 2009

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<b>Exhibit VI</b>					
<b>Chinese Consumers' Preference as per the Study of ChinaPolling*</b>					
<b>How much would you most likely be willing to spend on your next mobile phone?</b>		<b>Which type of mobile phone do you most want to own next?</b>		<b>When do you plan to purchase your next phone?</b>	
Less than RMB2000	61.40%	Music mobile phone	38.00%	Within 3 months	36.30%
RMB2000-3000	31.50%	3G phone	24.10%	More than 1 Year	24.40%
RMB3000-4000	4.40%	PDA/Organising mobile phone	23.40%	Within 1 Year	19.70%
Over RMB4000	2.70%	Camera capability	10.20%	Within 6 months	19.70%
		Normal phone with none of the above features.	4.40%		
<b>Note: numbers may not add up to 100% due to rounding * China-based online research organisation</b>					
Source: "Can a design attract more Chinese mobile phone buyers?", <a href="http://www.chinapolling.com/insights/can-a-design-attract-more-chinese-mobile-phone-buyers.html">http://www.chinapolling.com/insights/can-a-design-attract-more-chinese-mobile-phone-buyers.html</a> , September 27 <sup>th</sup> 2008					

To overcome these challenges, most of the foreign handset brands developed mobile phones based on consumer choices. For instance, Nokia designed mobile phones considering the price and design preferences of Chinese consumers and catered to all the consumer segments with diverse product portfolio (Annexure II (a)). Motorola, Samsung and Sony Ericsson also attracted consumers with quality phones (Annexure II (b)) and enhanced features. While the competition amongst these players is very stiff, all the handset brands together are facing competition from counterfeiters and unlicensed mobile phones in China.

## Grey Market

The Chinese grey market comprises of mobile handsets (fake ones) that are unrecognised by the government. The fake mobile phones in China are produced by unlicensed vendors, who benefit by evading tax and other mandatory issues and earn profits by gaining cost advantage in the production process (Exhibit VII). Vendors from grey market also offer mobile phones with advanced features like Wi-Fi, Microsoft Windows Mobile operating system, Bluetooth, etc. According to Kevin Wang, director, China Research, for iSuppli<sup>15</sup>, "In terms of features, grey-market handsets often are comparable with official phones. Nearly all grey-market phones have 2-megapixel VGA cameras and Bluetooth connections."<sup>16</sup> As the grey handsets began competing with legitimate cell phones in terms of features and functions, their exports in the global mobile phone market also increased. The shipments of China's fake mobile phones increased from 37 million units in 2005 to 101 million units in 2008 and are further expected to increase by 145 million<sup>17</sup> by the close of 2009.

<sup>15</sup> iSuppli is a research and consultancy firm offering services in electronics industry.

<sup>16</sup> Roger Field, "Grey handset market surges", <http://www.itp.net/578368-grey-handset-market-surges>, November 5<sup>th</sup> 2009



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The other threat which legitimate mobile phones in China face is from unofficial mobile phone sellers, who sell the smuggled mobile phones before their official entry into market. Apple iPhone is

<b>Exhibit VII</b>	
<b>Cost of Manufacturing a Fake Cell Phone in China</b>	
The factory production costs for a typical "shanzhai," or fake, cellphone in China run to about \$40, although very low-end fakes may be made for half that. A typical shanzhai phone sells at retail for \$100 to \$150.	
<b>FACTORY PRODUCTION COSTS</b>	
Main circuit board with Bluetooth	\$20.59
2.4-inch screen	5.59
Shell	2.35
Battery	1.47
Camera module	1.32
Keyboard	0.88
Packaging	0.74
Charger	0.59
Earphone	0.44
Speaker	0.29
Microphone	0.29
Receiver	0.29
Vibration motor	0.29
Other	4.41
<b>Total cost</b>	<b>\$39.56</b>
Source: David Barboza, "In China, Knockoff Cellphones Are a Hit", <a href="http://www.nytimes.com/2009/04/28/technology/28cell.html">http://www.nytimes.com/2009/04/28/technology/28cell.html</a> , April 27 <sup>th</sup> 2009	

one such example wherein the brand was unofficially sold in the Chinese mobile market much before its official entry into China. Since Apple iPhone became popular as a stylish gadget with cutting edge technology, it created consumer interest in the product and led to unofficial distribution of Apple iPhones in China. BDA, a China-based research firm, estimated that without the official sale, 1.5 million<sup>18</sup> iPhones were already in use in China.

### Apple iPhone's Foray into Chinese Handset Market

Apple Computer Inc. (Apple), a US-based multinational corporation, has always been an influential player in Personal Computer (PC) market by introducing new technologies. The company commenced its operations in 1976, under the leadership of Steve Wozniak and Steve Jobs. In 1984, Apple developed Macintosh, a personal computer with graphical user interface, which put the company on success path. Apple also brought in remarkable technologies like mouse, USB ports (for connecting computer peripherals) and FireWire (networking standard) into the PC market. The company also created consumer electronic and mobile communication devices like Apple TV, iPod (digital music player) and services like iTunes (music stores) along with PCs. In 2007, to mark the wide portfolio of hardware and software products, Apple removed the word 'Computer' from its name and thereafter was known as Apple Inc.

Apple has always carried the image of lifestyle and innovation in all its products and services. Apple had built its brand image on traits like imagination, liberty regained, innovation, passion, hopes, dreams and aspirations and power-to-the-people through technology.<sup>19</sup> According to Eric Clemons, Wharton professor, Operations and

<sup>17</sup> "Grey handset market surges", op.cit.

<sup>18</sup> Chao Loretta, "Sales of iPhone in China Set Under 3-Year Accord", <http://online.wsj.com/article/SB125144884553566179.html>, August 31<sup>st</sup> 2009

<sup>19</sup> "Apple's Branding Strategy", [http://www.marketingminds.com.au/branding/apple\\_branding\\_strategy.html](http://www.marketingminds.com.au/branding/apple_branding_strategy.html)

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Information Management, "Apple brings several things [to the market]: really sleek, cool hardware, great software and a cool, hip image."<sup>20</sup> Embodying this brand image, on June 29<sup>th</sup> 2007, Apple released iPhone in US smartphone market (Annexure III), which was named, 'Invention of the Year' by *Time* magazine, because of its design, features and touch screen technology (Exhibit VIII).

<b>Exhibit VIII</b>	
<b>Key Elements of Apple iPhone that Made it 'Invention of the Year'</b>	
<b>Elements</b>	<b>Description</b>
<b>Design</b>	The iPhone and its software let someone discover, understand and use its features without having to read a manual. "All the cool features in the world won't do you any good unless you can figure out how to use said features, and feel smart and attractive while doing it," Lev Grossman, <i>Time</i> book and technology writer, said in an article announcing the magazine's choice.
<b>Touch Screen</b>	Offers a new kind of interface that gives people the illusion of physically manipulating data with their fingers. People can use their digits, for example, to flip through album covers, click links, and resize photos. "This is, as engineers say, nontrivial," Grossman said. "It's part of a new way of relating to computers."
<b>Entrepreneur Skills</b>	In negotiating the deal with AT&T to carry the iPhone, Steve Jobs made sure that Apple held the right to build the device anyway it saw fit. This was unprecedented in an industry where carriers often have a hand in the development of mobile phones. Now that Apple has shown that manufacturers know more about design than carriers, other cellular phone makers are expected to demand more freedom, which should lead to more innovation, according to <i>Time</i> .
<b>Convergence of Technology</b>	To make the iPhone a genuine handheld computer. Because the device runs on a mobile version of the Mac OS X, the iPhone is truly a platform on which we can take Web applications, such as Google Maps, from cyberspace and onto the streets where they'll be most useful.
<b>Sales</b>	By selling 1.4 million units since the iPhone's release June 29, (till November 2007) Apple has shown that there's enough of a demand to keep the gadget around for a while. As a result, the iPhone is likely to evolve into something far better, much like the first iPod over the last six years. "It'll be very cool," Grossman said of the future iPhone. "And it'll be even cheaper."
Source: Gonsalves Antone, "iPhone named 'invention of the year'", <a href="http://www.informationweek.com/news/personal_tech/showArticle.jhtml?articleID=202801348">http://www.informationweek.com/news/personal_tech/showArticle.jhtml?articleID=202801348</a> , November 1 <sup>st</sup> 2007	

<sup>20</sup> "What's In A Name Change? Look at Apple ", [http://www.forbes.com/2007/01/25/apple-microsoft-motorola-ent-sales-cx\\_kw\\_0125wharton.html](http://www.forbes.com/2007/01/25/apple-microsoft-motorola-ent-sales-cx_kw_0125wharton.html), January 25<sup>th</sup> 2007

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Within 4 months of the launch, Apple sold 1.4 million iPhones<sup>21</sup>. The company also introduced improved models – iPhone 3G and iPhone 3GS – and expanded the market beyond US. In 2008, the recession in US and other parts of Europe affected Apple iPhone's sales in these countries. It therefore began expanding into Asian markets like India, which was offering huge potential for mobile telecommunications. However, Apple's iPhone did not make expected sales in India, because of its pricing strategy. The iPhone was priced at \$700, while in US it was sold at \$199<sup>22</sup> with a 2-year contract with service provider, AT&T. In India, large number of customers prefer prepaid services instead of making long-term contracts with mobile carriers. Besides, Apple faced competition from Nokia and Blackberry smartphones, which were more preferred by business people. Mehul Srivastava of *Business Week* opined, "Local corporations are willing to shell out \$700 for BlackBerrys (RIMM)<sup>23</sup> or more business-functional Nokia phones, but many perceive the iPhone as an entertainment tool for young people."<sup>24</sup>

Meanwhile, by Q3 2009, Apple iPhone seized 17.1% share of global smartphone market (Exhibit IX) and was present in more than 80 countries.<sup>25</sup> Although, iPhone had its presence in many countries, it did not officially enter into the world's biggest mobile market – China – for a long time.

Company	3Q09 Sales	3Q09 Market Share	3Q08 Sales	3Q08 Market Share	Growth
Nokia	16,156	39.3%	15,472	42.3%	4.4%
RIM	8,523	20.8%	5,800	15.9%	46.9%
Apple	7,040	17.1%	4,720	12.9%	49.2%
HTC	2,660	6.5%	1,656	4.5%	60.6%
Samsung	1,321	3.2%	1,115	3.0%	18.5%
Others	5,368	13.1%	7,793	21.3%	-31.1%
<b>Total</b>	<b>41,068</b>	<b>100.0%</b>	<b>36,557</b>	<b>100.0%</b>	<b>12.3%</b>

Source: "Apple's iPhone captures 17% of worldwide smartphone market", [http://www.appleinsider.com/articles/09/11/12/apples\\_iphone\\_captures\\_17\\_of\\_worldwide\\_smartphone\\_market.html](http://www.appleinsider.com/articles/09/11/12/apples_iphone_captures_17_of_worldwide_smartphone_market.html), November 12<sup>th</sup> 2009

Analysts opined that the delay was primarily caused due to prolonged negotiations between Apple and China Mobile, which failed to finalise on revenue sharing issues. The negotiations went on for 18 months<sup>26</sup>. Apple even offered to sell iPhone to China Mobile, under the condition that the later subsidise the services to iPhone customers, which did not materialise. Failing to reach a consensus

<sup>21</sup> Gonsalves Antone, "iPhone named 'invention of the year'", [http://www.informationweek.com/news/personal\\_tech/showArticle.jhtml?articleID=202801348](http://www.informationweek.com/news/personal_tech/showArticle.jhtml?articleID=202801348), November 1<sup>st</sup> 2007

<sup>22</sup> Srivastava Mehul, "Apple's iPhone, an Indian Flop, Prepares for China", [http://www.businessweek.com/globalbiz/content/apr2009/gb2009041\\_266236.htm](http://www.businessweek.com/globalbiz/content/apr2009/gb2009041_266236.htm), April 21<sup>st</sup> 2009

<sup>23</sup> Research in Motion Limited is a US-based wireless device company.

<sup>24</sup> "Apple's iPhone, an Indian Flop, Prepares for China", op.cit.

<sup>25</sup> "iPhone around the world", <http://www.apple.com/iphone/countries/>

<sup>26</sup> Lane Slash, "Apple, China Mobile still struggling to reach iPhone deal?", [http://www.appleinsider.com/articles/09/02/09/apple\\_china\\_mobile\\_still\\_struggling\\_to\\_reach\\_iphone\\_deal.html](http://www.appleinsider.com/articles/09/02/09/apple_china_mobile_still_struggling_to_reach_iphone_deal.html), February 9<sup>th</sup> 2009

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with China Mobile, Apple decided to partner with China Unicom, for the release of iPhone in Chinese mobile market. On August 28<sup>th</sup> 2009, agreeing to subsidise the device, China Unicom entered into a 3-year non-exclusive license agreement with Apple. China Unicom purchased 5 million mobile units – iPhone 3G and iPhone 3GS models – worth \$1.46 billion<sup>27</sup> from Apple. Apple is expecting to make good profits from its deal with China Mobile, as smartphone market in China is showing a promising growth (Exhibit X).



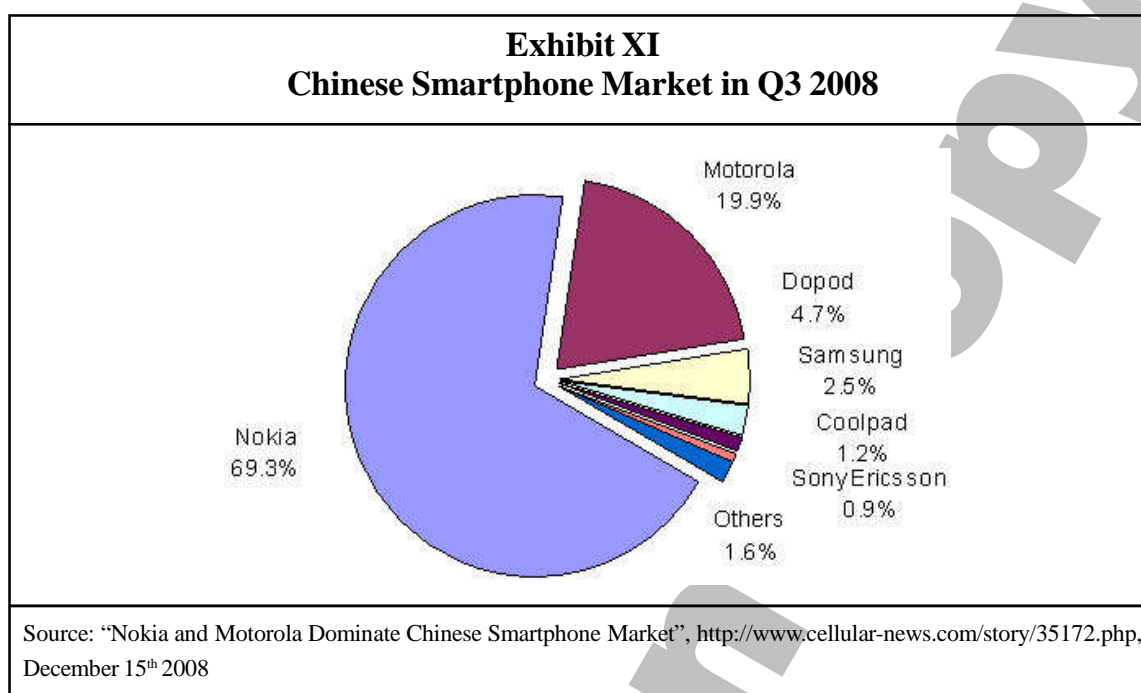
Chinese smartphone market is primarily controlled by Nokia and Motorola, with a collective market share of 89.15%<sup>28</sup> in Q3 2008 (Exhibit XI). Nokia's success in smartphone segment came from its effective pricing strategy, which catered to all consumer segments. According to the article, “Nokia and Motorola Dominate Chinese Smartphone Market”, “Covering all levels in mobile phone products, Nokia's smart phones cover low-class, middle-class and high-class, with products' prices from several hundred Yuan to six thousand Yuan. The fall in average prices allow smart phones to become the market mainstream, so Nokia lays its solid dominant position in middle-and low-end market.”<sup>29</sup>

<sup>27</sup> Oliver Sam, “Apple sells 5 million iPhones to China Unicom”, [http://www.appleinsider.com/articles/09/08/13/apple\\_sells\\_5\\_million\\_iphones\\_to\\_china\\_unicom.html](http://www.appleinsider.com/articles/09/08/13/apple_sells_5_million_iphones_to_china_unicom.html), August 13<sup>th</sup> 2009

<sup>28</sup> “Nokia and Motorola Dominate Chinese Smartphone Market”, <http://www.cellular-news.com/story/35172.php>, December 15<sup>th</sup> 2008

<sup>29</sup> Ibid.

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Analysts, however, are sceptical about iPhone's sales in China as the price of the product is quoted very high. Without service contract, iPhone 3GS is being offered at 6,999 Yuan<sup>30</sup> (\$1,024) to Chinese customers. On the contrary, when iPhone is offered with service plan for 2 years, it would cost nearly \$3,120 whereas, the average cost of smartphone in China is \$350. Moreover, complying with the Chinese government's rules, Apple launched its iPhone disabling the wireless internet function (Wi-Fi).

### Apple's iPhone in China: Will it Succeed?

After a long delay, Apple, made its entry into the Chinese handset market. The company, however, is challenged on many aspects in Chinese mobile market. Firstly, Apple has to fight against the stiff competition in Chinese smartphone segment. So far, the biggest rival for Apple in many overseas markets is Nokia. David Wolf, president of Wolf Group Asia, a Beijing-based advisory firm, opined, "Apple is entering China at a level of competition that's never been seen before. If they think they can come here and ride the wave they've enjoyed the last 2 1/2 years [in the West], then they're going to get a rude awakening."<sup>31</sup> On the other hand, Edward Synder, an analyst for San Francisco-based Charter Equity Research<sup>32</sup>, said, "Apple's brand is strongest at home, where the competition is weaker."<sup>33</sup>

<sup>30</sup> Chao Loretta, "High Price for iPhone in China Will Test the Appetite for Apple", <http://online.wsj.com/article/SB10001424052748703363704574503302512451942.html>, October 29<sup>th</sup> 2009

<sup>31</sup> Pierson David, "iPhone fever probably won't spread in China", <http://www.latimes.com/business/la-fi-china-iphone16-2009oct16,0,1021033.story>, October 16<sup>th</sup> 2009

<sup>32</sup> Charter Equity Research is an equity research firm in the area of telecommunications.

<sup>33</sup> Chao Loretta, "Apple, Facing Competition, Readies iPhone for Launch in Giant China Market", <http://online.wsj.com/article/SB125129375627560585.html>, August 27<sup>th</sup> 2009

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Secondly and most importantly, Apple is challenged by the presence of huge grey market in China. Few experts opine that the unofficial entry of iPhones in China will hamper the demand for Apple iPhones while few opine that Apple can actually bank upon its grey market presence in China. According to Z. John Zhang, professor of Marketing at Wharton, "Without any marketing inside China, Apple has managed to sell a large number of iPhones through the grey market. Apple could actually use the grey market to its advantage by capitalising on the iPhone's existing popularity. They can say, 'We know you love the product.' That's not something they could do when they initially launched the product (in the US)."<sup>34</sup>

Thirdly, Apple handsets in China are released into the market without Wi-Fi function, which could be a major setback for the company. As illegitimate handsets are already offering several enhanced features and users are showing more inclination towards mobile phone internet access, disabled Wi-Fi feature can hinder Apple iPhone's demand. However, after the first batch of Apple iPhones entered into Chinese mobile market, government allowed the company to include Wi-Fi function. Although this could lessen the threat of low demand for future Apple iPhones, the existing handsets still face the threat.

Adding to this, Apple also lacks a cultish image in China although a large number of image conscious buyers are present in the country. According to David Pierson of *Los Angeles Times*, "The company's other signature products – iPod music players and Mac computers haven't gained much traction here largely because of their premium prices."<sup>35</sup>

Besides, Apple partnered with China Unicom, which is next to China Mobile in terms of subscriber base. Hence, the question arises as to how far Apple's iPhone can penetrate into Chinese mobile market. Giving his views on the same, Kartik Hosanagar, Wharton professor, Operations and Information Management stated, "In the US, Apple managed to land a deal with AT&T. In contrast, in China, Apple could not get a deal with China Mobile, which has the largest share of the market.... So an important factor is that the share of the market that Apple is getting through China Unicom is much smaller."<sup>36</sup> Meanwhile, China Mobile entered into deal with several major handset brands – Motorola, Samsung and HTC – for launching smartphones, called OPhones, which would operate on Google's Android mobile operating system. China Mobile is therefore getting ready for providing a strong competition to China Unicom and Apple iPhone.

Nevertheless, will Apple iPhone make good sales in China, surmounting the grey market? Or, will grey market become a blessing for Apple iPhone in boosting its sales? Can Apple as a late mover, compete with the incumbents in Chinese mobile handset market?

<sup>34</sup> "The iPhone in China: Will Apple Connect with the World's Biggest Mobile Market?", op.cit.

<sup>35</sup> "iPhone fever probably won't spread in China", op.cit.

<sup>36</sup> "The iPhone in China: Will Apple Connect with the World's Biggest Mobile Market?", op.cit.

## Apple's iPhone in China: Can Apple Cash in on the World's Biggest Mobile Market?

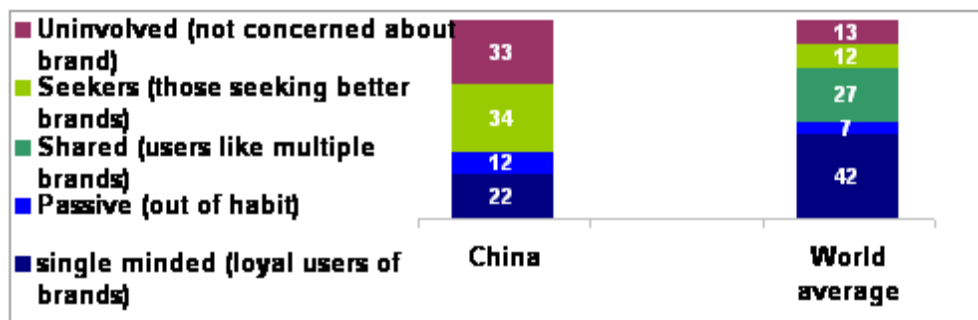
## Annexure I

### CTR Market Research on Chinese Consumer Behaviour towards 3G Mobile Operators

#### Chinese consumers' brand loyalty is low, with 1/3 looking for better alternatives

CTR analysed the user's loyalty by using its patented research solution called "States of Mind™ model", which indicated Chinese consumers' loyalty toward telecom operators is low. Only 22% of consumers are loyal to a certain operator, compared to 42% worldwide. "Seekers" who look for better choices account for 34%, as they are not completely satisfied with the service from their current operator.

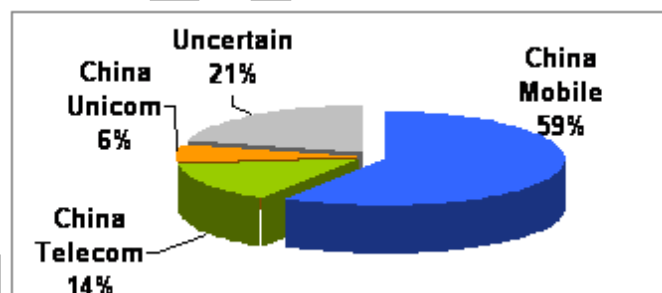
#### Chinese Mobile Phone User Profile



#### Mobile telecom market faces changes as 3G brings more alternative choices to users

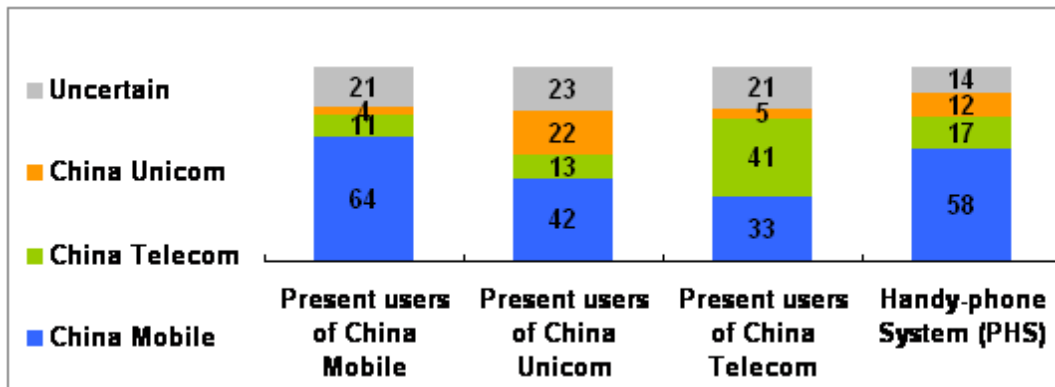
On May 17 when China Unicom began to distribute 3G numbers to users, all the three 3G networks have released their marketing plans to serve the 3G markets. How are the users' preferences?

#### The preference of 3G operators among potential users



## Apple's iPhone in China: Can Apple Cash in on the World's Biggest Mobile Market?

3G operators preferences among existing mobile users



The survey reveals that China Mobile has stronger ability to retain its existing users, with over 60% of its current users continue to use its 3G service, also China Mobile's 3G service is attracted by 42% of China Unicom users and 33% China Telecom users respectively. Nevertheless, China Mobile is facing the risk of losing users as 60% is obviously lower than its present market share at 75%. In particular, 15% users tend to choose China Telecom (11 percent) or China Unicom (4 percent) for their 3G services.

#### Each of the three operators owns its competitive edge

What do consumers consider when it comes to choose a 3G operator? The study also showed that every operator has its competitive territories.

People like China Mobile because of the best service, its good reputation and availability to stick to the old operator without changing number.

Users prefer China Telecom's initiative 3G image as well as its preferential measures, in addition to its convenience of staying with same number and extensive network.

Consumers are fond of China Unicom's 3G technical innovation plus its abundant 3G cell phone terminals.



## Apple's iPhone in China: Can Apple Cash in on the World's Biggest Mobile Market?

Reasons of choosing operators among potential 3G users (%)			
	China Mobile	China Telecom	China Unicom
Ability to stick to the current operator without \ changing number	86.3	64.8	56
Extensive 3G network coverage	71.5	60.4	53
Best service	65.4	44.9	44
Friends' recommendation; good reputation	57.9	47.1	45
Preferential packages, free cell phone in exchange for service commitment	51.2	57.3	41
Technology Innovation	47.9	46.3	52
The best packages that meet user's needs	45.5	46.3	47
Good impression on its 3G services	40.4	52.9	42
Abundant 3G cell phone terminals	38.4	33	39
Reasonable charges for 3G services	35.2	44.5	35

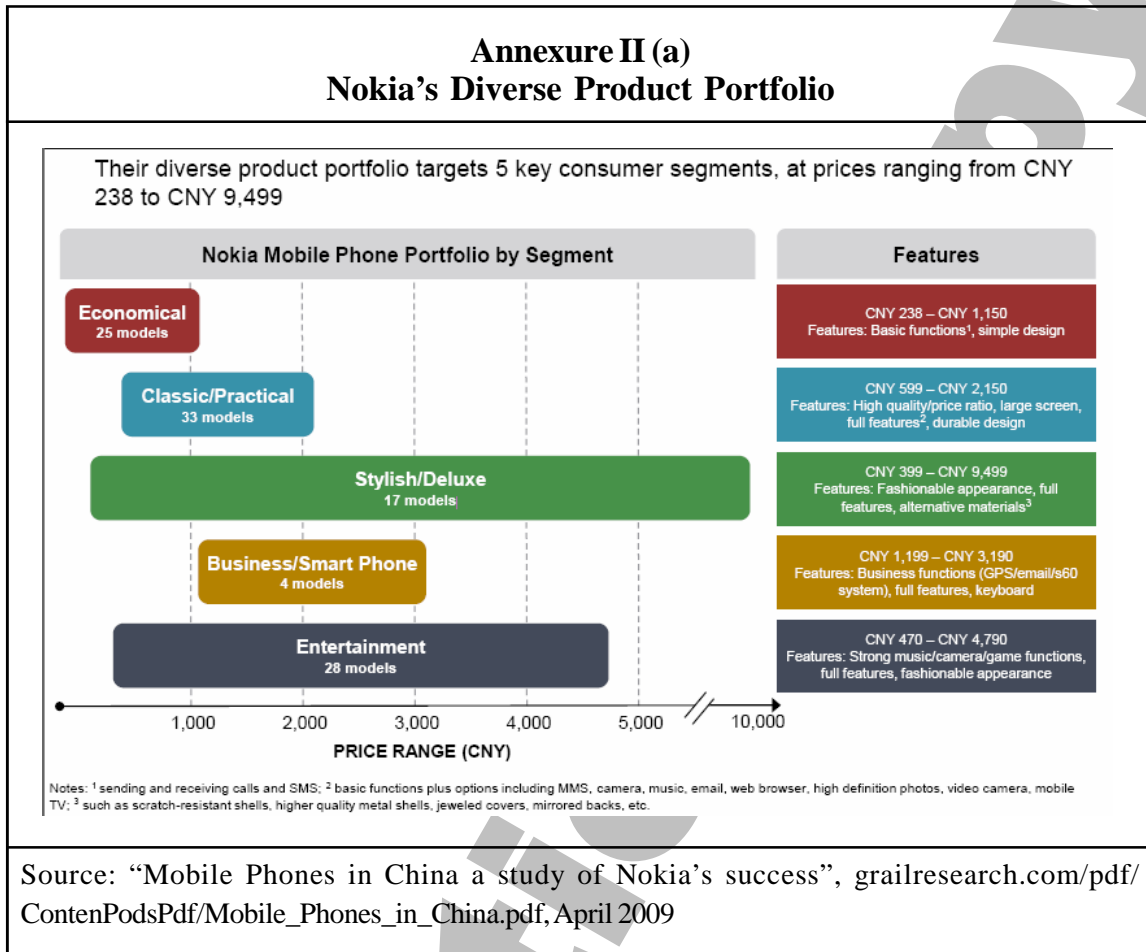
  

Correspondence Analysis	
<ul style="list-style-type: none"> <li>● Best service</li> <li>● Friends' recommendation; good reputation</li> </ul>	<ul style="list-style-type: none"> <li>● Abundant 3G cell phone terminals</li> <li>● Technology innovation</li> <li>● China</li> <li>● The best packages that meet user's needs</li> </ul>
<ul style="list-style-type: none"> <li>● China Mobile</li> <li>● Extensive 3G network coverage</li> <li>● Ability to stick to the current operator without changing number</li> </ul>	<ul style="list-style-type: none"> <li>● China Telecom</li> <li>● Good impression on its 3G services</li> <li>● Reasonable charges for 3G services</li> <li>● Preferential packages, free cell phone in exchange for service commitment</li> </ul>

Source: Zhan Michael, "China telecom market may reshuffle as consumers show low loyalty toward 3G operators", [http://www.chinadaily.com.cn/bizchina/2009-06/04/content\\_8247450.htm](http://www.chinadaily.com.cn/bizchina/2009-06/04/content_8247450.htm), July 4<sup>th</sup> 2009

Apple’s iPhone in China: Can Apple Cash in on the World’s Biggest Mobile Market?

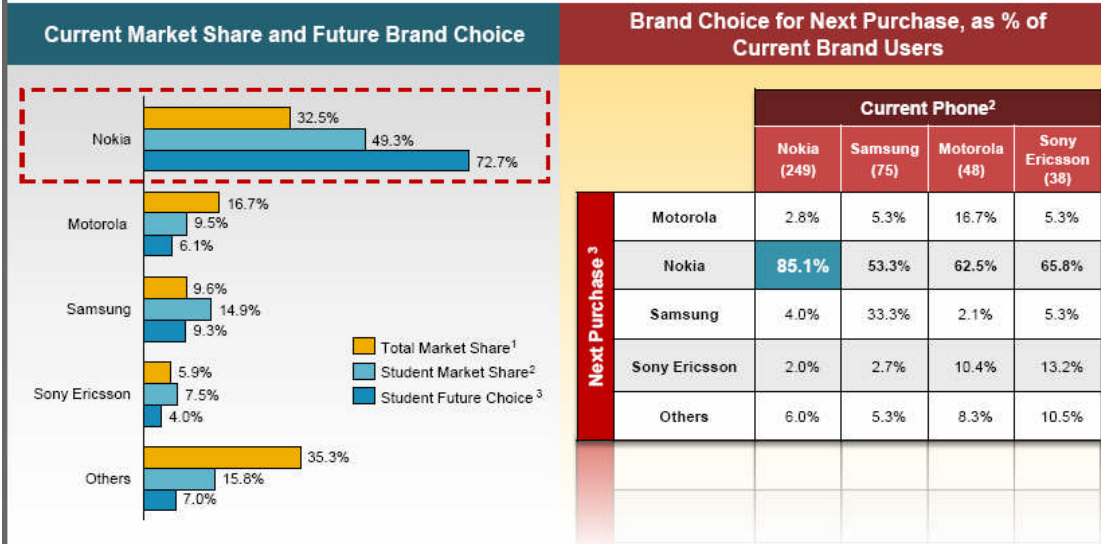
**Annexure II (a)**  
**Nokia’s Diverse Product Portfolio**



Apple’s iPhone in China: Can Apple Cash in on the World’s Biggest Mobile Market?

**Annexure II (b)**  
**Consumer Preferences of Mobile Handset Brands**

Nokia already holds the largest portion of market share in China and shows high potential for future growth – particularly among students, the next generation of purchasing power



Notes: <sup>1</sup> Sample selected by a rigorous process according to CNNIC and National Bureau of Statistics of China. <sup>2</sup> Question – “Which brand of mobile phone do you currently own?”; <sup>3</sup> Question – “Which brand of mobile phone are you most likely to purchase next?”; Grail Analysis, Total respondents = 505, invalid respondents excluded.

Source: “Mobile Phones in China a study of Nokia’s success”, [grailresearch.com/pdf/ContentPodsPdf/Mobile\\_Phones\\_in\\_China.pdf](http://grailresearch.com/pdf/ContentPodsPdf/Mobile_Phones_in_China.pdf), April 2009

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**Annexure III**  
**Apple iPhone at a Glance**

Apple







**iPhone Applications:**

	<b>Phone:</b> Make calls, with quick access to recent callers, favorites, and all your contacts. Visual voicemail presents a list of your voicemail messages. Just tap to listen to any message you want, in any order you want.
	<b>Mail:</b> Send and receive email using your existing email accounts. iPhone works with the most popular email systems—including Yahoo! Mail, Google email, AOL, and .Mac Mail—as well as most industry-standard POP3 and IMAP email systems.
	<b>Safari:</b> Browse any website over a cellular data network or over Wi-Fi. Rotate iPhone sideways for widescreen viewing. Double-tap to zoom in or out—Safari automatically fits sections to the iPhone screen for easy reading. Add Safari Web Clips to the Home screen for fast access to favorite websites.

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	<b>iPod:</b> Listen to your songs, audiobooks, and podcasts. Watch movies and video podcasts in widescreen.
	<b>Text:</b> Send and receive SMS text messages with anyone who has an SMS-capable phone. Conversations are saved in an iChat-like presentation, so you can see a history of messages you've sent and received.
	<b>Calendar:</b> View your iCal, Microsoft Entourage, or Microsoft Outlook calendar synced from your computer. Enter events on iPhone and they get synced back to your computer. Set alerts to remind you of events, appointments, and deadlines.
	<b>Photos:</b> View photos transferred from your computer or taken with iPhone. View them in portrait or landscape mode. Zoom in on any photo for a closer look. Watch a slideshow. Email photos, add them to a Web Gallery, assign them to contacts, and use them as wallpaper.
	<b>Camera:</b> Take clear, crisp photos at two megapixels and view them on iPhone, email them, or upload them to your computer. Take a friend's picture and set iPhone to display it when that person calls you.
	<b>YouTube:</b> Play videos from YouTube's online collection. <sup>1</sup> Search for any video, or browse featured, most viewed, most recently updated, and top-rated videos.
	<b>Stocks:</b> Watch your favorite stocks, updated automatically from the Internet.
	<b>Maps:</b> See a street map, satellite view, or hybrid view of locations around the world. Zoom in for a closer look. Find your current approximate location. Get detailed driving directions and see current highway traffic conditions. Find businesses in the area and call with a single tap. <sup>2</sup>

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	<p><b>Weather:</b> Get current weather conditions and a six-day forecast. Store your favorite cities for a quick weather report anytime.</p>
	<p><b>Clock:</b> View the time in cities around the world—create clocks for your favorites. Set one or more alarms. Use the stopwatch, or set a countdown timer.</p>
	<p><b>Calculator:</b> Add, subtract, multiply, and divide.</p>
	<p><b>Notes:</b> Jot notes on the go—reminders, grocery lists, brilliant ideas. Send them in email.</p>
	<p><b>Settings:</b> Adjust all iPhone settings in one convenient place. Set your ringtone, wallpaper, screen brightness, and settings for network, phone, mail, web, music, video, photos, and more. Set auto-lock and a passcode for security.</p>
	<p><b>iTunes:</b> Search the iTunes Wi-Fi Music Store music catalog, or browse, preview, and purchase new releases, top-ten songs and albums, and more.<sup>3</sup> In select Starbucks locations,<sup>4</sup> find out what song is playing in the café, then buy it instantly. Browse, preview, and purchase other songs from featured Starbucks Collections</p>
<p>1. Not available in all areas. 2. Some features or services not available in all areas. 3. Not available in all areas. 4. In the US only.</p>	
<p>Source: "iPhone User's Guide", <a href="http://manuals.info.apple.com/en/iphone_user_guide.pdf">http://manuals.info.apple.com/en/iphone_user_guide.pdf</a></p>	