NRI Papers No. 91 July 1, 2005

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Japanese mobile phones, which have undergone a unique evolution as a communication tool in everyday life, have been leading the rest of the world. This is because of the Japanese-style incentive sales business model where the telecom revenue obtained from growing the number of users is used as a principal underlying asset. However, fears swirl at the prospect that introduction of the MNP (mobile number portability) system in 2006 and new entrants into the industry in 2007 will promote price-driven competition and spur on the recent sharp plunge in ARPU (average revenue per user), making this model unsustainable.

Nevertheless, efforts are continuing to be made to reflect the original intention of using the mobile phone as a communication tool, create added value by merging mobile phones with fixed line communication or broadcasting and capture the advertising and sales promotion expenses of 19 trillion yen through B2B2C (Business to Business to Consumer) solutions. When those efforts bear fruit, the incentive model will be maintained and, additionally, the dream of expanding the current market of roughly 10 trillion yen to that of 20 trillion yen in 2010 is likely to become a reality. Therefore, it is inevitable that the roles played by mobile phones and the mobile phone industry are clearly defined with the intention of sharpening the competitive edge that Japanese industry already enjoys, while the parties involved in the mobile phone industry share the vision to accomplish just that.

# I Continuously Evolving K-tai

More and more youngsters no longer wear wristwatches. According to the university-freshman niece of the author, when she looks around, she finds that only one out of 4 or 5 students is wearing a wristwatch. She says a wristwatch is unnecessary because a mobile phone has a clock. You can use your mobile phone as your alarm clock. In addition, this standout tool wakes you up with your favorite tune (ring-tone melody) or with vibration.

A Korean actor appears at the arrival lobby of the Narita International Airport. Waiting fans scream and, in unison, shoot pictures of him with their mobile cameras. This is a common sight in Japan. However, quietly, one manufacturer after another is withdrawing from the digital camera business.

Electronic notepad, voice recorder, electronic dictionary, analog TV, digital game, FM radio, music player—just like a python, a mobile phone is swallowing up these functions and still proceeds along its path of evolution. Apple Computer's "iPod," the mobile audio music player, which basks in sky-high popularity in the United States, will find its strongest rival in Japan—a mobile phone equipped with a music player function.

The Telecommunications Carriers Association announced that the number of mobile phone subscriptions reached approximately 87 million as of the end of March 2005. This nearly equals the productive-age population (from age 15 through 69). Many people carry mobile phones with them constantly, 24 hours a day, 365 days a year; more than 86 percent of the handsets are ready for Internet access. This is the overwhelmingly highest ratio in the world, keeping abreast with Korea.

Japanese mobile phones, which were first marketed as a personal, convenient communication tool to achieve communication at "anytime, anywhere, with anybody," is now much more than a telephone. Described merely as "K-tai" (recently, media overseas has also referred to Japanese mobile phones as "K-tai"), Japanese mobile phones are undergoing a unique evolution and continue to lead the rest of the world.

# II Forming the 10 Trillion-Yen K-tai Market

The total telecommunication business revenue of four Japanese mobile phone carriers in fiscal year 2004 (April 2004 – March 2005) reached roughly 7 trillion yen. If mobile-phone-related markets such as the product market of mobile phone handsets, the mobile content market of ring-tone melodies and wallpapers, the mobile commerce market (commissions only), the mobile advertising market, and the mobile solution market are added to this, the total reaches about 10 trillion yen. Such a gigantic market has been formed in a scant 10 years.

The engine for such rapid growth consists of the "world's first" services and functions including "i-mode" (mobile Internet access), color LCD screen, "Sha-mail" (photo mail), "Chaku-Uta" (ring-tone song: your can use your favorite song by downloading it from a website as a ring tone) and "Mobile Wallet" (contactless IC card). The most advanced "K-tai" handsets that are equipped with those functions immediately penetrate across Japan through carrier shops, mass-merchandisers and mobile phone specialty shops. This can easily be accomplished because the unique, Japan-specific sales incentive business model has paved the way.

## 1 The Japanese-Style Business Model

A carrier purchases handsets that are tailored to the carrier's specifications from a manufacturer and sells those handsets through its agent channels at its own risk. For example, a handset, whose purchase price from a manufacturer is 40,000 yen, is sold at 20,000 yen, because a 30,000-yen sales incentive is paid for a sales agent. This 30,000-yen sales incentive, which consists of the difference of 20,000 yen and a 10,000-yen gross margin of the sales agent, is collected through monthly usage charges paid by the users. This discount can be accomplished if the model is popular.

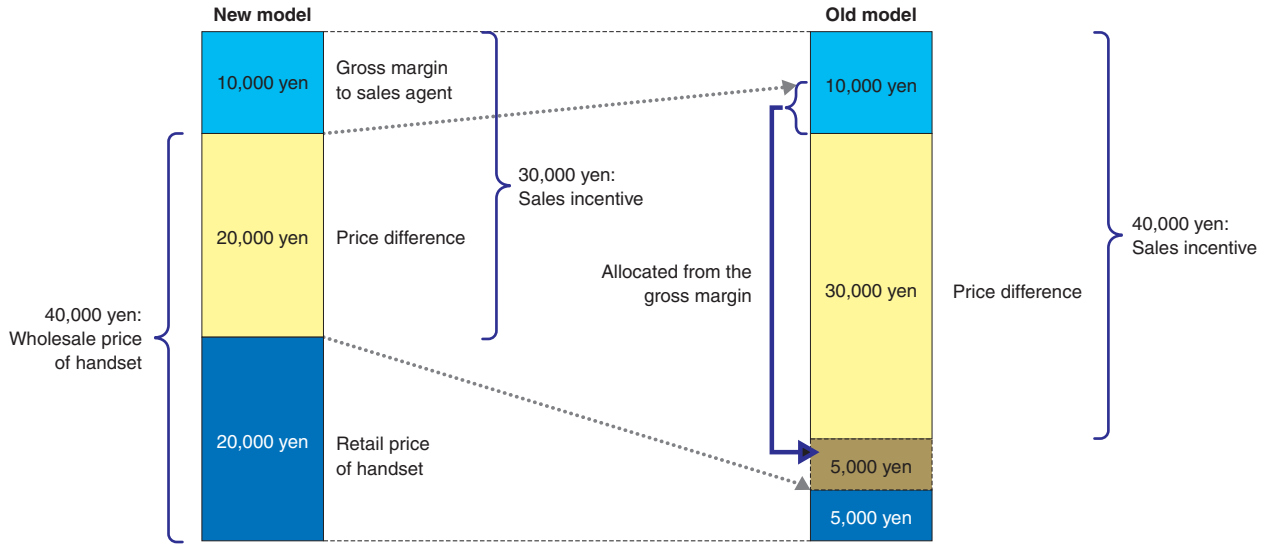
For unsold handsets, the carrier pays larger sales incentives (and the sales agent cuts its gross margins) to sell such handsets cheaply (occasionally at 1 yen) and clear out its inventory. Due to such a scheme, a Japanese user can buy a handset with advanced functions for next to nothing if the user is willing to wait for nearly 6 months (Figure 1).

The average sales incentive per handset that the carrier pays is around 40,000 yen, and this forms a massive sales agent market whose total annual amount reaches almost 2 trillion yen.

However, the sales incentive business model is not unique to Japan. Actually, only a few countries, such as Finland and Korea, have no sales incentives. Rather, Japan's uniqueness is that the carriers have developed the market. They took the initiative so they could take a comprehensive approach towards "producing" new services.

Up to the second generation mobile phones, for which voice communication functions were predominant, other countries where handset manufacturers showed initiative didn't have any particular problems. However, for the handsets of the 2.5-generation or greater whose dominant functions are for data communications, network development by a carrier and handset development by a manufacturer must be in sync. Even when a carrier prepares a data communication network, the market has no handsets that are ready for the network. This kind of problem happened quite often in overseas countries. In contrast, in Japan, from the days when NTT was a state-run company, carriers have employed a system where

**Figure 1. Sales Incentive of a Mobile Phone Handset**




carriers determine handset specifications and purchase from handset manufacturers. Therefore, handsets can be sold as soon as a network is launched.

Later, global carriers such as Vodafone and France Telecom-owned Orange studied the factors behind the success of the 2.5-generation in Japan and switched to the "Japan style" where handsets tailored to their specifications are procured.

## 2 Component Manufacturers Jump on the Bandwagon

Over the past few years, the number of mobile phones produced in Japan remains around 50 million units per year. As the market reaches maturity, the breakdown is shifting remarkably from purchases for "new subscription" to those for "upgrading." However, attractive new models and services as well as unique handset designs fuel the inclination of users to upgrade and, even recently, users upgrade their handsets after around 22 months on average. This means numerous handsets are replaced with new models in less than two years.

Conversely, highly developed handset functions continuously boost the average unit price per handset (Figure 2). Consequently, the Japanese mobile phone handset market attained a size of about 1.7 trillion yen in 2004.

More than a dozen Japanese handset manufacturers swarm over this 1.7-trillion-yen market. Regarding market share in terms of the volume of handsets shipped in Japan in fiscal year 2004, NEC is No. 1, Sharp is No. 2 and PMC (Panasonic Mobile Communications) is No. 3.

In terms of global share, however, NEC, which ranks first in Japan, sinks to No. 7. The No.1 player, Nokia, commands a remarkable share, which exceeds 30 percent (Figure 3). Among others, Samsung Electronics and LG Electronics have achieved dazzling breakthroughs. In 2004, they have climbed to No. 3 and No. 5, respectively. What helped the Korean handset manufacturers make such drastic leaps? In short, it is their "challenger spirit" and "flexible multiproduct production."

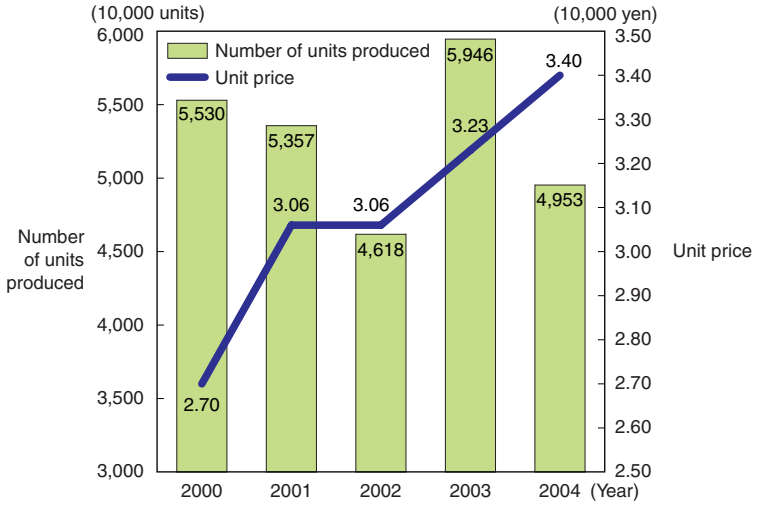
A carrier determines handset specifications and, when it receives many handsets that are tailored to the specifications, the carrier basically sells those handsets until they are sold out. Japanese handset manufacturers have been conducting business under this kind of "carrier convoy-fleet" approach. In contrast, Samsung Electronics and LG Electronics regard the Korean market, whose size is relatively small, as an arena for their test marketing, and place small batches of one handset after another on the market in order to globally roll out the specific handsets that result in favorable market reactions. Directly dealing with end users, they develop and sell handsets as they wish and at their own risk.

A purchaser of a foreign carrier told me, "Well, when Korean manufacturers sit down, they always say, 'Please buy one unit and try it! Then, let's talk business.' In contrast, whenever Japanese manufacturers sit down, they immediately say, "Before we talk business, how many thousand units are you planning to order as your minimum quantity?"

Among such Japanese manufacturers, such as NEC, some turn their eyes to the global market including China and jump into overseas markets. However, there are precious few who do this. As highly functional handsets cast heavier burdens on software developers, Japanese handset manufacturers are shattered by dealing with only the Japanese market and have great difficulties in generating profits. Under such circumstances, their predicaments continue. Considering the mobile phone as the gateway that constitutes the coming ubiquitous network society, many manufacturers continue this business only as long as they can stay out of the red.

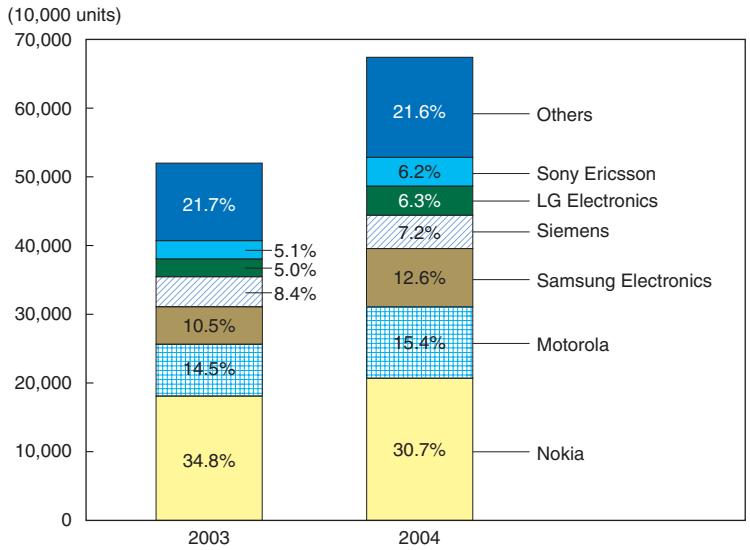
In looking at mobile phone handset component and software manufacturers, we find that several Japanese manufacturers command the world's top shares. In the

**Figure 2. Changes in the Number and Unit Price of Mobile Phone Handsets Produced in Japan**




Source: Ministry of Economy, Trade and Industry, *Revised Report on Machinery Statistics*.

**Figure 3. Global Share in Terms of Mobile Phone Shipments in 2003 and 2004**




Source: Gartner news release (March 2, 2005).

fields of color LCDs, CCDs (charge coupled devices), CMOS (complementary metal-oxide semiconductor) devices, LED (light-emitting diode) chips, microphones, connectors, housings, buzzers, vibrating motors, batteries, hinges (for flip-type K-tai telephones) and microbrowsers, Japanese manufacturers command the world's share, which exceeds 50 percent.

The actual reason for this is that those component manufacturers have worked hard and learned through competition in the extremely demanding Japanese market. Consequently, the technology and cost competitiveness they have acquired are advantageous in the global market.

According to an American research company, Gartner, the number of mobile phone handsets shipped worldwide in 2004 reached 674 million units. Assuming the average shipping price per unit to be 20,000 yen, the market size is no less than 13 trillion yen. If Japanese component manufacturers were able to maintain their competitive edge in this global arena, they could command 30 to 40 percent of the market, which equals 4 to 5 trillion yen.

As a matter of course, among the handset lines of the high-, middle-, and low-end handsets, Japanese component manufacturers excel at holding their competitive edge for high-end handsets. Therefore, it would not be easy for them to expand their share in the global market where the ratio of low-end handsets has been steadily growing.

## 3 The Magic Spell That "700 Million Units" Cast

The mobile phone handset market, which numbers over 700 million units, brings other attractions as well. Although a company balks at developing a certain

technology for other information technology devices, the company may decide to develop that technology for mobile phone handsets, which will be shipped out in large quantities.

When the technology is installed in the mobile phone handsets, it causes the unit price to plummet, thereby helping the technology broaden its range into other information technology devices. For example, consider the mini-size color LCDs used for mobile phone handsets. As a result of intensified competition in upsizing, high definition and power saving, there is a great increase in mounting those LCDs on digital cameras and silicon audio products.

For a future technology, the key is whether the technology will be installed in a mobile phone handset. Consider mobile phone broadcasting (terrestrial digital broadcasting services for mobile phones using one segment dedicated to mobile phones), which will be launched in fiscal year 2005. When the function to receive mobile phone broadcasting is equipped with a mobile phone handset that everyone already always carries (Figure 4), broadcasting stations and advertising agencies expect that this will unquestionably boost TV audience ratings and drive up the value of TV as an advertising medium.

**Figure 4. Prototype Mobile Phone Handset Equipped with a Function to Receive Mobile Phone Broadcasts**

Source: NTT DoCoMo news release (March 11, 2005).

**Figure 5. Prototype Mobile Phone Handset Equipped with an RFID Tag Reader Function**

Source: KDDI news release (March 2, 2005).

**Figure 6. Prototype Mobile Phone Handset Equipped with a Fuel Cell**

Note: In this picture, a fuel cell is placed on a cradle.
Source: NTT news release (February 22, 2005).

Another example is RFID (radio frequency identification) tag readers. RFID tags are one of the most important constituents in implementing the ubiquitous network society. If a tag reader, which reads information from a tag when the tag is exposed, is mounted on a mobile phone handset, RFID is expected to become quite inexpensive and rapidly proliferate (Figure 5).

We must not forget fuel cells. For a mobile phone handset that is equipped with more highly advanced functions including a music player, a mobile phone broadcasting receiver, and a tag reader, power consumption is the biggest bottleneck. Mounting a fuel cell on a mobile phone handset (Figure 6) is expected to eliminate this bottleneck and also bring about a reduction in the unit price while facilitating its application for other information technology devices.

# III Dwindling K-tai Market

Not only for the development of the mobile phone industry but also for the enhancement of the competitiveness of Japanese industry, a high level of expectation has been placed on the K-tai market. However, at present, the market stands at a crossroads. Concern is growing at the prospect that the Japanese-style sales incentive business model will no longer function.

## 1 Plunge in ARPU

NTT DoCoMo announced its first decline in operating income and revenue for fiscal year 2004. It is thought

that the factor behind this is a sharp plunge in ARPU (average revenue per user) due to (1) the acquisition of low-ARPU users in accordance with the maturity of the market, (2) a reduction in packet charge due to a shift from "Mova" (second generation) to "FOMA" (third generation), (3) the introduction of flat-rate packet service, "Pake-Houdai," and (4) the expansion of a variety of pricing plans for lock-in users and others.

The ARPU of KDDI's au finally exceeded that of NTT's DoCoMo during the third quarter of fiscal year 2004 (Figure 7). This plan introduces rich content services including "EZ Channel" and "Chaku-Uta Full" as services that make the most of its flat-rate packet services, "EZ Flat" and "Double Teigaku," and successfully raises the data ARPU of middle- and low-use users, thus minimizing its decline in ARPU. Nevertheless, its ARPU is definitely on a downward trend. This is also true for Vodafone.

ARPU is the underlying asset of the Japanese-style sales incentive business model. If it drops, handset sales prices will go up unless otherwise handset purchase prices drastically fall. This situation makes it difficult for the domestic Japanese handset market to maintain its sales level of almost 50 million units per year.

Regarding handset purchase prices, although each carrier has adopted a different approach, they all make desperate efforts with handset manufacturers for price reductions. Vodafone tried to curb its purchase prices by increasing the number of units per model through global procurement. NTT DoCoMo reduced the number of functions and developed simple handsets as a means of driving down purchase prices. However, handsets are still being equipped with one new function after another, and the effects of such actions on the part of the carriers will be limited.

Additionally, two big events that are planned for future development are expected to have an extreme effect on driving ARPU downward.

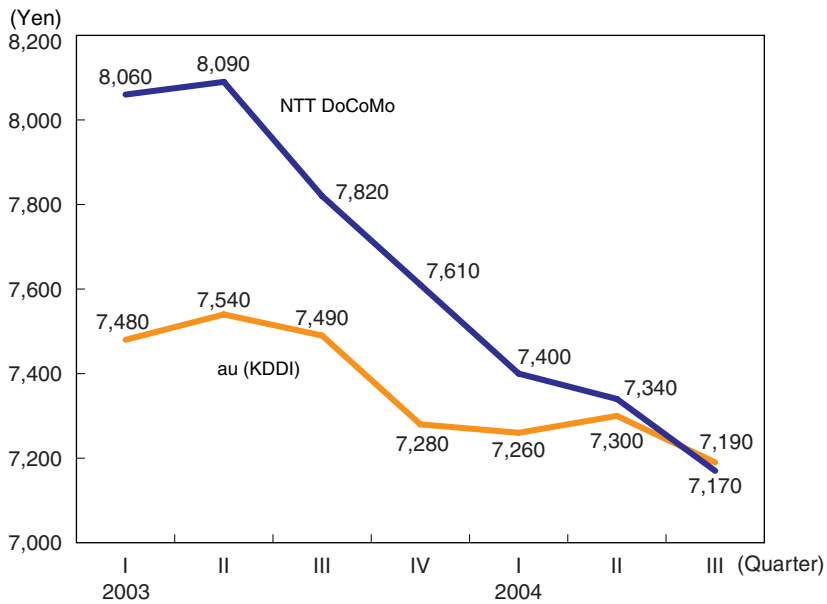
## 2 Impacts of the MNP System and New Entrants

The MNP (mobile number portability) system, which allows a user to keep his or her mobile phone number even when changing mobile phone carriers, will be introduced in Japan in fiscal year 2006. At the time of this writing, no specific method of introduction and schedule had been determined. However, based on examples in other countries, the method is expected to approximate the one-stop styles similar to those found in the United States and Korea, where MNP formalities are completed at one location.

In association with MNP, carriers are expected to introduce an assortment of pricing plans and measures to lock in their users, which practically trims their service charges. In Korea, the MNP system that was introduced on January 1, 2004, intensifies competition among carriers, causes reductions in service charges and additionally reinstates sales incentives that had been banned by law. Spurts in sales promotion expenses devastated the rates of profit of carriers in Korea.

Another big occurrence is the introduction of the new 1.7-GHz entrants. To Softbank, which is led by it's President Masayoshi Son, who has expressed his strong willingness to jump into the industry with the intention of cutting the current mobile phone charges in Japan in half, the door for entry of the 800 MHz phone is practically closed. However, the Ministry of Public Management, Home Affairs, Posts and Telecommunications has announced that they will give permission to

**Figure 7. Change in Total ARPU of NTT DoCoMo and au**




Source: IR materials of NTT DoCoMo and au.

two additional companies to enter at 1.7 GHz. The new entries into the market would set off price-driven competition, just as was the case with the introduction of ADSL (asymmetric digital subscriber line).

However, unlike ADSL, for which competitiveness can be measured by the two major factors of data communication speed and charges, factors such as area coverage and depth as well as calls and sound quality become significantly important for mobile phones, in addition to the two factors related to ADSL. Therefore, the appeal of merely high speed and low charges will not attract new users. In short, depending on how Softbank broadens its services, the existing carriers will not necessarily find themselves embroiled in a price war.

In addition to the two "meteorites" of the introduction of the MNP system and new entrants into the industry, ARPU may drop even more when a dual handset that serves as a mobile phone and a WLAN (wireless local area network) terminal is used to make toll-free or dirt-cheap VoIP calls at any hotspot in a town and in a WLAN area at home or in an office.

# IV Creating the 20 Trillion-Yen K-tai Industry

As just described, the factors which will continue to reduce ARPU are too numerous to mention. Suppose ARPU of all carriers decreases by an average of 1,000 yen. This affects about 90 million users, and the total amount of lost revenue is 1 trillion yen. Just as in the case of the fixed line market, will the mobile phone market continue to dwindle? One alternative is to shift from a carrier-led approach to a vendor-led approach. However, is it impossible to maintain and sharpen the competitive edge of Japanese industry while maintaining the carrier-led, Japan-specific sales incentive business model as well as a scheme in which the most advanced mobile phone handsets penetrate the market immediately and explosively?

To solve those challenges, the following three major directions are proposed.

## 1 Reflecting the Original Intention of Mobile Phones

**(1) Improving sound quality**

The developments of mobile phone services including "i-mode," "Sha-mail," "Chaku-Uta" and "Mobile Wallet" have been conducted primarily along the path from "K-tai to talk with" to "K-tai to use." Nevertheless, mobile phones were initially and still are communication tools. The desire is to tell feelings more realistically and to share this present feeling with somebody precious. Mobile phones are tools to satisfy such basic human desires, and this was the original intention of mobile phones.

**Figure 8. Mobile Phone with a Microphone-Equipped Music Controller and a Stereo Headphone**

Source: KDDI news release (March 14, 2005).

The pessimism that ARPU is unlikely to re-expand now predominates. However, when you think of your daily mobile phone experiences, you immediately remember that you try to finish your call as quickly as possible whenever you cannot hear the voice of your caller clearly.

Currently, the style to use "K-tai" with earphones with an embedded microphone, which is called an earphone-microphone, is rapidly penetrating the market. This is due to hands-free-ready car navigation systems, which are derived from the revised Road Traffic Law, and the popularity of music player K-tai and FM-radio K-tai phones (Figure 8). When the use of K-tai with hands-free earphone-microphone becomes widespread and such communication becomes popular, the voice at the other end of the call will become clear and the average airtime spent per call will increase.

In fiscal year 2002, from fixed line to mobile phone, from mobile phone to fixed line, and from mobile phone to mobile phone, a total of 56.4 billion calls were made. When mobile phone sound quality improves, and if each call is extended by 30 seconds, earning an additional charge of 30 yen, the ARPU will increase by 1,500 yen, meaning that total telecommunication business revenue will increase by 1.7 trillion yen.

**(2) Launching visual communication**

The number of NTT DoCoMo FOMA users currently exceeds 10 million, and the number of users using visualphone services is steadily increasing. However, visualphone traffic has difficulties in growing. Talking with your counterpart while looking at his or her face is definitely the ultimate form of verbal communication. However, its biggest difference from simple communication via voice or mail is that such communication is for extremely close rapport. As indicated by the slogan, "the person you want to talk to over the visualphone must be your most precious person," use is assumed to be extremely personal and private.

Nevertheless, when talking over visualphones today, there is no option but to use a speakerphone. When people

are nearby, such a prerequisite makes it difficult to answer a surprise visualphone call, and also makes it difficult to make a visualphone call. As mentioned before, when the earphone-microphone becomes more popular, communication over the visualphone will be easier. Introduction of a function wherein communication starts in voice communication mode and changes to visualphone communication mode at any time during the conversation is also desired.

The use of video for business has seen market penetration of the TV conferencing system to a certain extent. However, using the visualphone function between mobile phones is still a niche application and its market use remains imperceptible. The service that NTT Communications recently launched, "Dot-phone Business V," is intended for their broadband users and enables visualphone communication between a personal computer and a FOMA handset. The convenience of this form of video communication is appreciated only after using it.

If an employee who is on the road can easily have visualphone communication via a FOMA handset with an employee at a personal computer in the office, the use of visualphone between mobile phones and between personal computers will catch on as well, which would promote the more complete use of visual communication.

**(3) Tactile communication**

Among communication related to the five senses, telecommunication, which started with the auditory sense, has extended its reach into the visual sense. It will still take some time for the senses of smell and taste to be installed on a mobile phone, but it would not take much time for tactile communication to be installed.

For example, the "Robot Phone," which was developed at the laboratory of Professor Tachi of the University of Tokyo, can send motion information of a stuffed toy on a real-time basis to a counterpart via a network (Figure 9). By using the multi-access function (for simultaneous voice and data communications) of W-CDMA, one can move a stuffed toy while talking on the phone. This idea has already been commercialized as "IP Robot Phone" for fixed line broadband application through TLO (technology transfer organization).

There is a desire to make K-tai communication much more pleasant and to communicate feelings that cannot be expressed in words. These are examples indicating that the products and services that realize such desires are still subject to further development and improvement.

As described, the reduction in ARPU is a serious concern. For this reason, it is desirable that the original intention be remembered and that the introduction of products and services that support more expressive and exciting modes of communication opens a new mobile frontier.

**Figure 9. Robot Phone**

Source: Home page of Professor Tachi Laboratory, the University of Tokyo.

## 2 Creating Added Value

FMC (fixed-mobile convergence: the marriage between fixed line and mobile services) is globally growing to become a major trend, thanks to approaches such as "NESPOT Swing" of KT (Korean Telecom) and "Bluephone" of BT (British Telecom) in addition to the establishment of a global consortium by fixed line carriers. Softbank also intends to implement FMC when venturing into the mobile phone business.

However, does FMC actually create added value? As a matter of course, not only for mobile phone services but also for fixed line broadband and "My Line" services, when a user is tied up with more than one contract, it prevents the user from churning. In other words, it brings about the effect that the reduction in churn rate improves the LTV (lifetime value) of customers. In this case, however, FMC becomes little more than a tool to lock in users.

The services cannot be provided by a mobile phone alone or by a fixed line alone. However, when the services of those two different modalities marry, this hybrid service improves its convenience remarkably and turns the conventionally impractical aspects into a useful reality. Users then find added value and pay for the value. The development of genuine FMC such as this is desirable.

In this era of packet flat-rate services, it is favorable for a carrier when a user downloads rich content via a fixed line broadband network instead of using its mobile phone network because it reduces the load on the mobile phone network. Nevertheless, the carrier prefers authentication and settlement to be performed on its mobile phone platform. The idea, "superdistribution," is that a user downloads encrypted content to the user's personal computer via broadband at home. Using a USB cable or a memory card, the user transfers that content to his or her mobile phone and accesses the mobile phone carrier's site to buy the "key" for decryption. This is exactly

the cream skimming of fixed line and mobile phone services.

Open browsers, which enable a user to browse the Internet using the user's mobile phone, are expected to be mounted on numerous mobile phones in the future. So far, mobile portals, which are prepared by carriers (such as "i-mode" and "EZweb" top pages), enjoy the overpowering volume of accesses. When open browsers become popular, the competition for ubiquitous portal sites will become fierce across the boundary of fixed lines and mobile phones.

KDDI's au, the only carrier that sells mobile phone handsets with open browsers, will venture to introduce flat-rate services starting on May 1, 2005, using its open browser. Prior to that, KDDI and Excite Japan announced that they would launch a portal site business with the aim of interlocking mobile phones and personal computers. At the same time, they established a new company, Duogate. Yahoo!, which commands the predominant share of fixed line portal services and is fighting back, has worked hard to upgrade its site for mobile phones with the name "Yahoo! Mobile."

Nomura Research Institute (NRI) forecasts that the penetration of broadband into households as well as the ratio of 3G (third generation) mobile phones against all mobile phones will reach 50 percent by the end of fiscal year 2005. The marriage between mobile phones and fixed lines at respective layers such as content, portal, authentication/billing/settlement platform, network and handset will create new added value for FMC.

The fusion of mobile phones with broadcasting is the same as in the case of FMC. If the advantage is merely to watch TV programs on a mobile phone, no added value is created. If a scheme is developed to distribute a part of the profits that are earned through TV advertising to carriers in accordance with the advertising value enhanced by mobile phone broadcasting, such distributed profits could be used as an underlying asset and compensate for increases in the price of handset purchase prices. Without developing this scheme, no incentives will be provided for carriers to purchase and sell handsets that are ready for mobile phone broadcasting. The scheme is likely to become a reality, establishing a win-win relationship among TV stations, advertising agencies, carriers, and handset manufacturers, as well as users.

## 3 Capturing the Advertising and Sales Promotion Market

According to Dentsu, the advertising expenses of the four types of Japanese mass media (TV, newspapers, magazines and radio) in 2004 reached almost 4 trillion yen. When SP (sales promotion) advertising expenses of about 2 trillion yen are added to that figure, it results in an advertising market of about 6 trillion yen. The expenses for rebates and kickbacks, most of which are paid for distribution channels and are called a company's sales promotion expenses, have been showing a downward trend in recent years, but NRI estimates those expenses at about 13 trillion yen. In other words, a total of 19 trillion yen is spent for the sales of products and services.

In contrast, mobile advertising expenses reached about 18 billion yen in fiscal 2004 even though they grew quite rapidly. This figure is only one-tenth of Internet advertising, which reached roughly 180 billion yen, and merely one-hundredth of TV advertising, which reached about 2 trillion yen. Mobile phones are interactive media that 90 million people usually carry with them 24 hours a day, 365 days a year. Considering this, the figure is probably too small.

Regarding advertising expense per terminal at work, that of radio is about 1,000 yen, and that of TV is about 20,000 yen. Assuming that the advertising expense per mobile phone handset is half that of TV, the author estimates the potential mobile advertising and sales promotion expenses to be 1 trillion yen.

A database could be created from actual personal information of respective mobile phone users, including information about the hobbies and tastes of individual users and what their interests are. From that, a one-to-one approach is taken with the target customers of a client company. This kind of B2B2C (business to business to consumer) solution is promising. In other words, the advertising and sales promotion expenses that companies pay in addition to ARPU, which end-users pay, cover the underlying assets and are used to lower mobile phone prices.

In order to accomplish this, a marketing platform for collecting, analyzing, matching and distributing customer information is required. From April 2005, in compliance with the Law Concerning the Protection of Personal Information, a stringent management system is required in collecting and using personal information.

Including operation of the main governing body of the marketing platform that uses mobile phones, practical investigations must be conducted for its realization.

Recently, unsolicited mail has become a matter of public concern. Regarding the method of delivering information (advertisements) to users, it is necessary to define the methods that can fully utilize the potential of mobile phones such as banner advertisements on mobile phone stand-by screens and personalized mobile portal screens.

Additionally, in order to obtain permission from a user for disclosing the user's personal information, it becomes critical that attractive, easy-to-understand advantages are offered. To encourage users, it is necessary to study systems where the user is credited with a point from an advertising provider whenever an advertisement is distributed (displayed) or whenever the user clicks the advertisement. The user can then use those earned points for upgrading the handset at a lower price.

# V Sharing the Vision Is Inevitable

The current size of the Japanese mobile phone market is about 10 trillion yen. If the suggested approaches bear fruit, the market will not dwindle but will expand to reach 20 trillion yen by 2010. It is by no means an impossible dream.

Reflect on the original intention of mobile phones as being a communication tool and add voice and visual-phone MoU (minutes of use) while stopping the decline in ARPU. Merge mobile phones with fixed lines and with broadcasting in order to create new added value. Capture a part of the advertising and sales promotion market, which is about 19 trillion yen, for the mobile phone industry. In addition, launch a mobile solution market for corporate users including mobile Centrex (a system that merges corporate house phones with mobile phones), which is not covered in this article.

Through these achievements, maintain the current carrier-led sales incentive business model in order to maintain the level of annual shipments of highly functional, leading-edge handsets at about 50 million units. Consequently, the internationally competitive edge that mobile phone handset component manufacturers currently have will be maintained and intensified, and the market share of Japanese manufacturers in the global mobile phone market will expand.

This scenario is not far from reality. However, in order to accomplish this, it is essential that the roles played by mobile phones and the mobile phone industry be clearly defined with the intention of sharpening the competitive edge enjoyed by Japanese industry, while all the concerned parties in the mobile phone industry, such as carriers, handset manufacturers, component manufacturers, sales agents, content providers and system integrators share the vision to be accomplished.

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