



Chapter 8

New ways of doing business in the telecommunications sector

8

New ways of doing business in the telecommunications sector



It seems clear that opening up the mobile market will change its dynamics, but how will it affect the business models of telecommunications companies? And what about businesses in other sectors that use mobile solutions? And, most importantly, will innovative business models emerge and justify the development of new products and services?

FTF experts were in agreement in pointing out that the impact and innovation in business models of companies operating in the new mobile market are an essential and often forgotten aspect. What seems clear is that the opening of the mobile market will have an impact on the business models of companies and that their ability to adapt to this new landscape will have a major bearing on their future.

On one hand, traditional companies in the telecommunications sector are witnessing how their usual sources of revenue do not generate the expected profits, and they feel the threat posed by the entry of new competitors as well as a loss of control. On the other hand, companies in other sectors see the market opening as a new opportunity that is often difficult to translate into a solvent business plan. Lastly, it is difficult to envision how the possibility of using mobile devices as a channel of distribution, marketing and sales, as well as the “mobilization” of employees (see Chapter 6), will affect their business models.

The business models that emerged with the Internet have demonstrated their ability to generate huge profits. **Google**²⁷⁸, **Wikipedia**²⁷⁹, **YouTube**²⁸⁰, **Blogger**²⁸¹ and **Facebook**²⁸² have millions of people who are not employees producing material that is distributed over the Internet for them. The great merit of these companies has been their ability to attract tens or even hundreds of millions of users. This has no doubt been highly valued by communication and advertising companies, which has led them to invest in this channel.

Now is the time to devise innovative business models in the mobile market. As technological barriers are overcome, market expansion lies in the ability to innovate in this area. Opening up the market and having more people use mobile services will create the necessary conditions to encourage investment and innovation in business models. When this takes place, and as users in emerging countries are incorporated, companies must take on the challenge of understanding and meeting the needs of global consumers, with all that this implies.

Companies outlining new business models face the major challenge of changing the idea that remains in the minds of many people regarding free mobile networks and services. A problem arises due to the fact that many small firms believe that “open” networks are the same as “free” networks, and persuade them to pay for their use poses an initial challenge for operators. Another problem is that many consumers believe that all wireless phone services should be free, in the image and likeness of those offered on the Internet.

²⁷⁸ Google: <http://www.google.es/>.

²⁷⁹ Wikipedia: <http://www.wikipedia.org/>.

²⁸⁰ YouTube: <http://www.youtube.com/>.

²⁸¹ Blogger: <https://www.blogger.com/start?hl=es>.

²⁸² Facebook: <http://www.facebook.com/>.

The point is that free services would entail an increase in advertising-based business models, but a large number of users are required in order for this to work, as occurs with online services. The problem is that innovative wireless phone services (mobile Internet, mobile social networks, etc.) are not in great demand, so ad-based models are not appealing *a priori*. According to FTF experts, offering free access to the network is not a viable option from an economic point of view. They believe it is reasonable for certain contents to be free (sponsored, “reverse-charged” or paid for by third parties), but they should have underlying business models that ensure a return on investments, particularly if we take into account that the high investments required by mobile networks pose an obstacle for operators when it comes to doing business. These factors make it very difficult at present to imagine a context in which consumers receive mobile services free of charge. The question is how to charge for mobile services that can be accessed for free over the Internet. The answer is to convince users of the value offered by mobile handsets compared to alternative channels, configuring a range of products and services tailored to their idiosyncrasies.

What seems clear is that rehashing the current models in the new open landscape is not going to work. Certain companies such as **Nokia**²⁸³, **Google**²⁸⁴, **Opera**²⁸⁵ and **Apple**²⁸⁶ are leading the change with their business models. Meanwhile, enterprising businesses (startups) in the mobile market should base their range of products and services on solid business models if they are to survive. The bankruptcies of companies like **OmniSky**, **Metricom** and **MobileStar** are proof that making money in the mobile market is no easy task²⁸⁷.

8.1. New strategies for operators and MVNOs

In the past, the mobile market was characterized by high growth rates based on voice services that offered substantial profits to operators. Now, however, they face the following problems²⁸⁸:

- **Saturation in mature markets.** The high penetration rates in developed countries (for example, Italy, the UK and Germany with 83%, 79% and 78%, respectively) are indicative of the maturity of the market.
- **Stagnation in revenue per user.** The average revenue per user of major operators has stagnated (see Figure 54). Voice services that used to offer operators high growth rates have now become mass consumer goods with a zero growth rate.
- **Low use of data services.** Operators have tried with little success to offset the stagnation through increased sales of data services such as mobile Internet. The profits derived from these services represent roughly 8% of the total (excluding 15% generated by SMS).
- **Intensifying competition.** The opening of the market leads to more competition and, thus, to a pressure on prices. A new category of competitors, such

²⁸³ Nokia: <http://www.nokia.com/>.

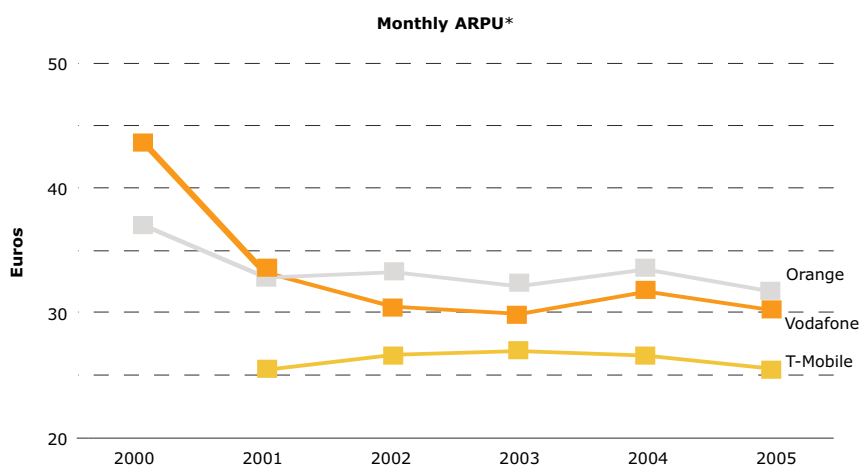
²⁸⁴ Google: <http://www.google.es/>.

²⁸⁵ Opera: <http://www.opera.com/>.

²⁸⁶ Apple: <http://www.apple.com/es/>.

²⁸⁷ Ebs. Article: “Business and Revenue Model. The Economics of Mobile Revenue Models.” http://www.ebstrategy.com/mobile/articles/m_rev_models_eco.htm.

²⁸⁸ *Fixing Mobile Operators’ Retail Distribution. Understanding The Battle Between Mobile Operators And Retail Channels.* Jenny Lau, David Metcalfe, Niek van Veen, Lizet Menke and Andrea Carini. Forrester. June 2006.



* Average of operations across France, Germany, Italy and the UK.

Figure 54. ARPU of major European operators.
Source: Forrester Research, Inc.

as **Skype**²⁸⁹, **Google** and **Joost**²⁹⁰, is examining how to offer free voice and video over the Internet using mobile handsets.

In an attempt to improve their financial situation, operators are more receptive to **opening their networks and, thus, to boosting data services**. A few years ago, mobile TV appeared to be the main source of innovation, but the lack of standards and business models in this field has led them to relax their models as a means to improve their financial prospects.

Operators realize that increasing the use of data services opens the door to new methods of generating revenues. Voice services limit profits to revenue per minute of use or flat rates, while a boom in data services would enable new product package offers. That is why operators are reaching agreements with Internet companies—such as **T-Mobile**²⁹¹ with **Google** (web'n'walk) and **Hutchison**—they are aware of how much weight these companies pull in terms of data traffic. They have also signed numerous agreements to offer instant messaging and, more recently, **Vodafone**²⁹² and **SFR**²⁹³ have given access from their sites to a wide range of services²⁹⁴.

8.1.1. The challenge for operators

Operators are faced with the difficult task of combating the decline in profits, while being forced to upgrade their networks (GPRS, UMTS, etc.). If they want to sell more data services, they must first build strong networks that allow developers to design new applications that enable them to bill data traffic according to the user's identity, location and transactions.

²⁸⁹ Skype:
<http://www.skype.com/intl/es/>.

²⁹⁰ Joost: <http://www.joost.com/>.

²⁹¹ T-Mobile:
<http://www.t-mobile.com/>.

²⁹² Vodafone:
<http://www.vodafone.es/particulares/>.

²⁹³ SFR: <http://www.sfr.fr/>.

²⁹⁴ *Mobile 2008. Market & Trends. Facts & Figures*. Enter, Idate, IT Deusto. 2008.

It is even more important to change the way they look at customers and realize that in the new multipolar world they will have to face two types of markets with completely different dynamics: the developed and emerging markets. While in mature markets demand for new subscriptions is lower, users request services with a higher level of quality and sophistication for which they are willing to pay a higher price. By contrast, in emerging markets, even when the number of potential users is greater, the price barrier means that the profit per user will be lower. In the near future, the success of businesses will be based on achieving the right balance when addressing both markets.

Another good option is to learn from past experiences. According to the consulting company EBS²⁹⁵, mobile operators face the challenge of devising business models that do not repeat the mistakes of the Internet. While the Web was a huge success in terms of user numbers, it was a tremendous financial fiasco for carriers such as **Sprint**²⁹⁶ or **AT&T**²⁹⁷, which were unable to effectively monetize the IP traffic generated by their customers. Therefore, mobile operators are under strong pressure to devise plans that enable them to share with their partners the profits deriving from the use of their networks.

To summarize, new business models should incorporate the following changes:

- **Contemplate the dichotomy between the needs of consumers in developed and emerging markets.** Customer segmentation is a vital aspect in this regard.
- **Accept the change in their relationships with customers.** At present, they are mainly in charge of providing voice services, however diversifying services complicates the relationship with users.
- **Pursue diversification of their services, agreements with new partners and new profit sharing schemes.**
- **Take into account the increased competition with the proliferation of MVNOs and new entrants.**
- **Take part in sections of the value chain that have not yet been explored.**

In addition to changing their business models, they should change their range of products and services, focusing on creating value for their customers by designing a diverse and attractive portfolio of products, as well as high-quality customer support services.

Many operators realize this and are beginning to change their business models, range of products and marketing strategies²⁹⁸.

²⁹⁵ Ebs: *op. cit.*

²⁹⁶ Sprint: <http://www.sprint.com/>.

²⁹⁷ AT&T: <http://www.att.com/>.

²⁹⁸ Enter, Idate, IT Deusto: *op. cit.*

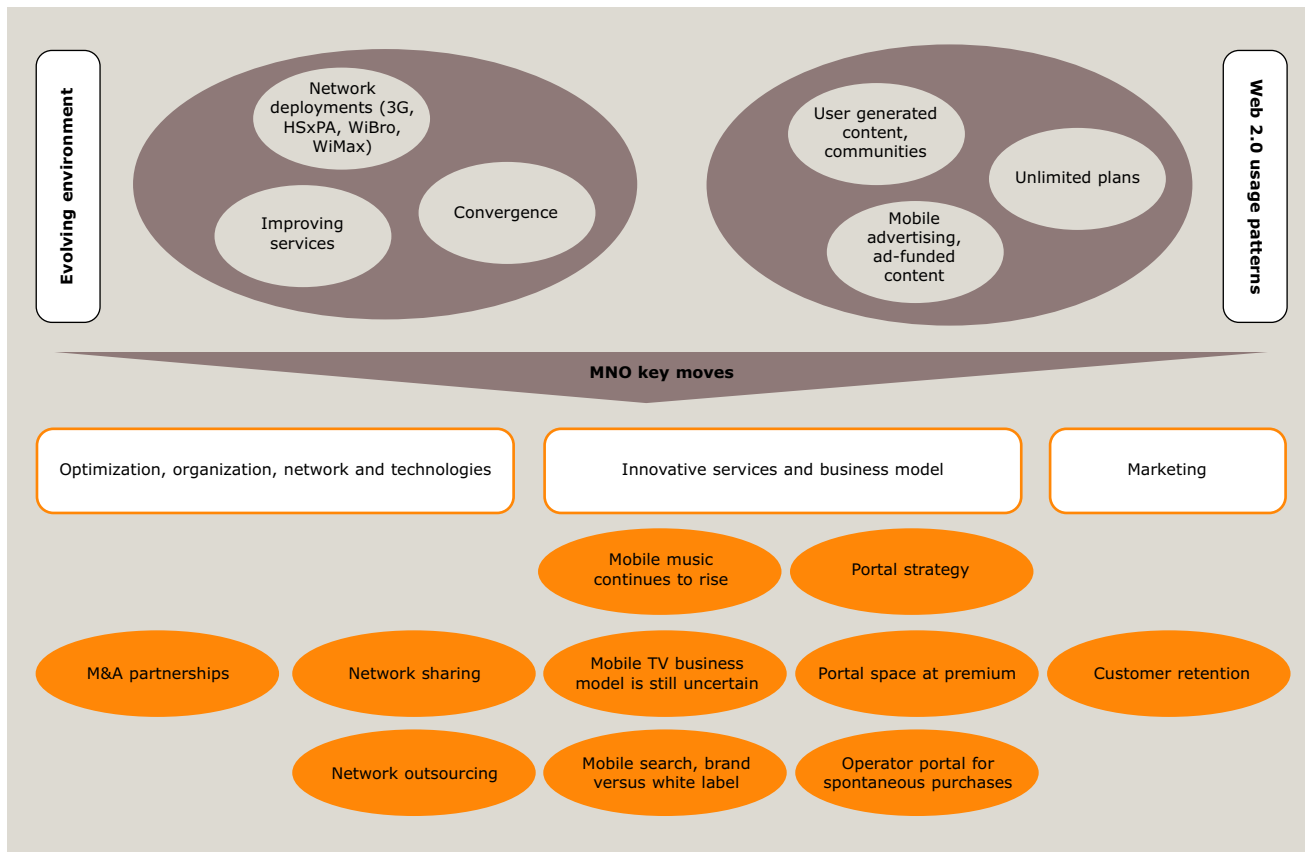


Figure 55. MNO potential strategies in an evolving web-based environment.
Source: Enter-Idate.

The FTF panel of experts predicted which would be the most common business models over the next five years for operators, MVNOs and other companies that provide access. Their conclusion was that it will be those who base their profits on flat rates that give access to a package of services. The experts also envisage the success of models offering Internet connections from mobile phones with access to certain premium content or unlimited downloads (see Figure 56).

8.1.2. Customer segmentation

In the new landscape, more open to free competition, understanding customers' needs will be crucial for retaining them. Operators obtain valuable data on their subscribers' usage from mobile phones that can be segmented according to the length and time of day that calls are made, the profit generated, and so on. The more subscribers use data services, such as mobile Internet, m-commerce or m-banking, the more valuable this information will be for everyone involved in the market.

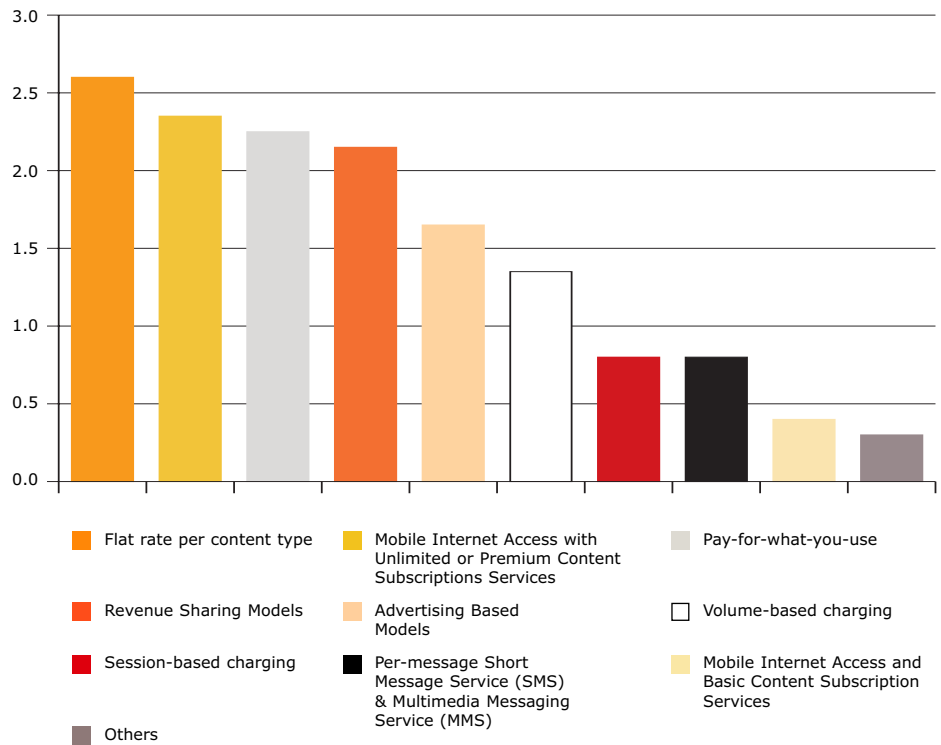


Figure 56. Most frequent business models of the next five years for operators, MVNOs and other access providers.

Source: drawn from the conclusions within the Future Trends Forum.

Note: see glossary for description of the different business models.

This segmentation should be the basis on which carriers establish their business strategy. In this regard, the consulting firm CSMG²⁹⁹ predicts that operators will be more willing to establish agreements aimed at targeting consumers with a high level of spending. These customers will benefit from a more open strategy by operators, in the form of: flat rates, advanced phones (such as the iPhone) and a wide variety of applications and content, as well as access to alternative purchasing channels that are not directly controlled by operators. Similarly, companies—as customers of this heavy-use segment—may have a wider choice of services, devices and support options.

It is also important that the segmentation take into account the new multipolar reality of the market. Products and services are no longer targeted at a limited number of consumer profiles; instead, there will be “microexperiences” of different consumers that are more difficult to classify anywhere in the world.

²⁹⁹ *On the Edge: Devices at the center of change in wireless.* CSMG. Spring 2008.

8.1.3. Flat rates to stimulate demand

As seen above, the FTF experts feel that operators should offer flat rates if they want to increase their average revenue per user. According to Forrester³⁰⁰, this type of subscription would have a beneficial circular effect at all levels of the value chain:

Flat-rate data tariffs kick-start an upward cycle

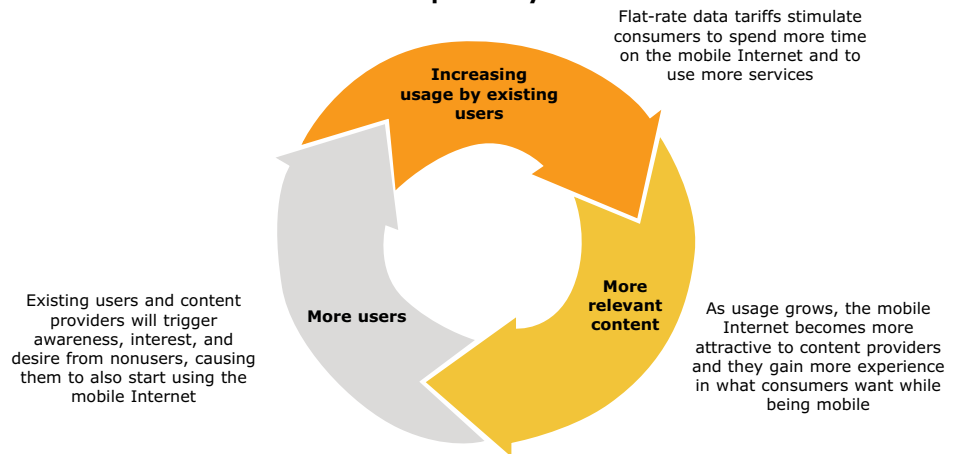


Figure 57. Circular effect of flat rates.
Source: Forrester Research, Inc.

1. **Increased usage among existing subscribers.** Consumers look for simple, predictable and cheap rates that enable them to control spending. Flat rates respond to these three premises, and have thus contributed to a rise in Internet connections: when prices fell 35% in Western Europe between 2004 and 2006, usage increased by 135%. In the mobile market, something similar occurred with voice services. In Japan, where the use of mobile Internet has greatly increased, 80% of **KDDI**³⁰¹ customers signed up for their flat rate, which forced **NTT DoCoMo**³⁰² to also offer this kind of pricing.
2. **More quality content.** Today the vast majority of Internet sites do not specifically develop for mobile platforms. This becomes a vicious circle: brands do not want to invest millions of euros in developing a specific website if there are not enough users, while advertising companies want to see proof of the efficiency of this medium for their campaigns. Only 32% of mobile Internet users go online at least once a week. As the number of users frequently accessing the Internet from their mobile handsets rises, all of the major companies will want to have a presence on this channel. The involvement of names like **Google**, **YouTube** or **MySpace**³⁰³ will surely attract other companies in the industry.

³⁰⁰ *Mobile Internet Pricing Strategies Mature*. Niek van Veen. Forrester. July 2007.

³⁰¹ KDDI:
<http://www.kddi.com/english/index.html>.

³⁰² NTT DoCoMo:
<http://www.nttdocomo.com/>.

³⁰³ MySpace:
<http://www.myspace.com/>.

3. Growing user base. Existing users and content providers will increase potential users' interest, knowledge and desire for data services. Operators can accelerate the process by offering mobile access to services that are already popular on the Internet, as **Vodafone** did with **MySpace**. In the Netherlands, **KPN**³⁰⁴ has done something similar by cooperating with the popular social network **Hyves**³⁰⁵.

Several operators have decided to offer flat rates to their customers. For example, **Telefónica**³⁰⁶ has launched an offer that consists of four flat rates for mobile Internet allowing online access from mobile phones, computers and PDAs, with unlimited data traffic³⁰⁷. The connection speed is reduced if a download limit is exceeded, although no additional charge is applied. Meanwhile, **Vodafone** offers its customers Internet browsing using mobile devices for twelve euros a month. This fee gives access to the service without time or connection limits.

Nevertheless, offering flat rates is not enough for data services to really take off. A clear example can be found in the U.S., which for years has led the way with its range of flat rates for mobile phones, ranging from 15 to 40 dollars a month (some operators even allowed mobile phones to be used as modems). Nevertheless, this has not brought about a significant increase in the use of data services.

Offering flat rates certainly stimulates the demand when consumers are convinced of the value of data services, but they are less likely to be willing to pay a monthly fee for a service they have not even tried or that they do not find attractive or adapted to their needs. This suggests that, at this stage, it makes more sense to clarify user fees and offer flat rates when they are convinced of the value of these services.

It is also important to consider that traffic increases exponentially in the absence of additional costs to consumers. This is currently becoming a problem for Internet service providers (such as the **BBC** iPlayer in the UK), which will become even more acute in mobile networks, as their access has an inherent limitation.

It therefore appears that flat rates are a necessary condition for the success of data services but not sufficient. They must be accompanied by adequate network management and attractive services for which users are willing to pay a fee.

8.1.4. The rise of service packages

Another strategy that operators can use to increase usage is to offer their customers service packages. Many consumers are demanding these kinds of deals, a wide range of which are currently available, covering three core services (triple play): fixed voice, Internet access and TV.

³⁰⁴ KPN: <http://www.kpn.com/>.

³⁰⁵ Hyves: <http://www.hyves.nl/>.

³⁰⁶ Telefónica: <http://www.telefonica.es/>.

³⁰⁷ Noticiasdot.com. 13/06/2008. Article: "Telefónica estrena tarifas planas 'reales' de Internet móvil para ordenadores, móviles y PDAs."

Despite the fact that Spain trails most of Europe in broadband lines and Internet use, it ranks at the top for households with two or more telecommunications services contracted in packages³⁰⁸. With 29% of households having signed up for such services, it ranks fourth on the continent, right behind Denmark, Estonia and the Netherlands, and well above the EU average, according to Eurobarometer data presented in the report *Sociedad de la Información 2007* by Telefónica. This gap is widening, especially in terms of the rate of growth, which rose 40% in one year, consolidating this leadership.

Quadruple packages

It seems logical for telecommunications companies to boost their triple bids (fixed voice, Internet and TV) by adding mobile services (“quadruple play”). Cable TV providers, satellite TV companies and mobile operators could also compete by offering these services. To do so, they may choose to acquire other companies, establish joint agreements or expand their own operations to offer this service directly. The decision will depend on market position, their ability to expand their product range and their financial situation³⁰⁹.

³⁰⁸ *Cinco Días*. 07/01/2008. Article: “España, a la cabeza de Europa en venta de paquetes de ‘telecos.’” http://www.cincodias.com/articulo/empresas/Espana-cabeza-Europa-venta-paquetes-telecos/20080107cdscdiemp_3/cdsemp/.

³⁰⁹ *From Triple-play to Quad-play. Strategies, Business Models, and Best Practices*. Pyramid Research. 2007.

Provider	Landline voice	Mobile voice	Landline broadband	TV, video	Degree of difficulty in filling portfolio gaps and offering bundles
Cable providers	Incremental build	Partner (MVNO) or acquire	Incremental build	X	Low—primarily network upgrades
Satellite TV providers	Partner or acquire	Partner (MVNO) or acquire	Partner (MVNO) or acquire	X	High—primarily acquisitions, partnerships
Mobile network operators	Build or acquire	X	Partner or acquire	Partner or acquire	Moderate to high—partnerships acquisitions needed
Telcos	X	Partner (MVNO) or acquire	Incremental build	Build or partner	Low to moderate—primarily, though in the most difficult segment, video

Figure 58. Service providers’ strategic options for filling gaps and offering quad-play packages. Source: Pyramid Research.

In Europe, quadruple plays have been met with modest acceptance. In the case of Spain, only 5% of customers who sign up for service packages go for the quadruple play. One of the factors slowing their expansion is the slow progress of the integration of companies' fixed-voice and wireless departments. The lack of unified business objectives and common strategic vision is holding back such offers.

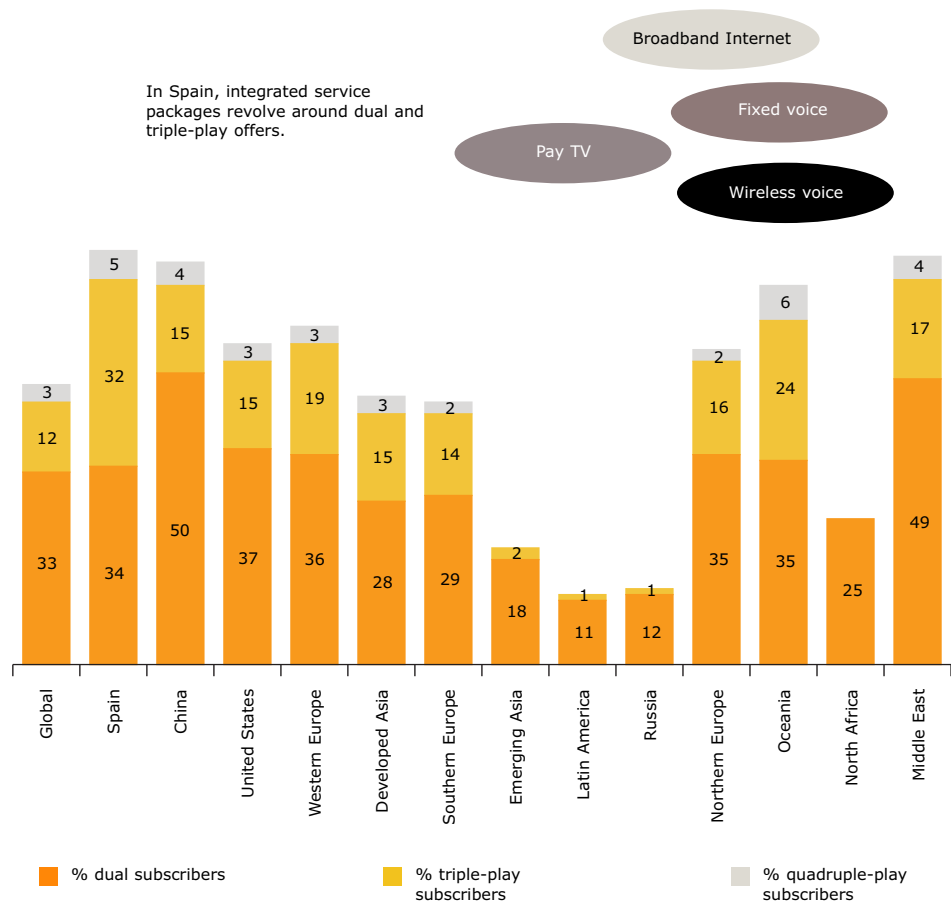


Figure 59. Global use of dual, triple and quadruple offers.
 Source: *Estudio España Consumo Móvil*. TNS Global Technology Insight. November 2006.

Nonetheless, there are some examples of this type of offer in Europe:

- In 2006, **Virgin Media**³¹⁰ launched a quadruple play in the UK for 40 pounds a month that offered 2 Mbps Internet connection, calls to national fixed-lines, a TV channel package, 300 minutes of wireless calling and 300 SMS³¹¹.

³¹⁰ Virgin Media: <http://www.virginmedia.com/>.

³¹¹ Pyramid Research: *op. cit.*

- The French operator **SFR** launched its own quadruple play in April, 2007: for 29.90 euros, it offered Internet access up to 20 Mbps, fixed-voice calling, a package of 36 TV channels and outgoing wireless calling, albeit with numerous restrictions (limited geographical range, etc.)³¹².
- In February, **Jazztel**³¹³ signed a contract with **Orange**³¹⁴ to offer complete virtual wireless voice services in Spain by consolidating quadruple-play services in a single bill.

The reason for the modest supply of these packages lies in the concern on behalf of operators and service providers about their profitability. First, insofar as they entail discounts for customers, the profits are lower, with a high sales cost (from 50 to 419 euros). At the same time, they can lead to “war” between competing offers, being a defensive weapon in the short term but with questionable profitability in the medium term. Therefore, it seems to make more sense for the operators, taking advantage of the opening up of the mobile market, to focus on expanding their range of offers with innovative services that offer customers value and that generate higher profits.

8.1.5. Advertising in business models

Traditionally, operators’ business has been mainly based on managing traffic on their networks (for example, selling minutes and data access to their customers). However, with companies like **Google** entering the market, the old business models are being threatened by ad-based models that include free network access.

The idea of offering telephone services for free in exchange for accepting ads is not new³¹⁵. In 1997, the company **Gratistelefon** tried its luck in this area, offering users free national fixed-line service in exchange for listening to a 10-second ad at the start of each call (one minute later another ad came on, then another after two minutes). The Norwegian operator **Telenor**³¹⁶ offered a similar service, but neither of the two had much success. Currently, **Orange France**³¹⁷ and **Vodafone UK** are trying out similar models for wireless voice services in which customers receive games and other free downloads sponsored by ads. Meanwhile, **Virgin Mobile** has managed to get 330,000 customers to sign up for its Sugar Mama plan, which features free, ad-sponsored calls.

Despite all the buzz about this kind of business model, it’s enough to examine the current data and forecasts on profits in order to get an idea of the viability of models funded entirely by advertisements. The forecasts show that telecommunications companies will get less than 2.5% of their revenue from advertising.

³¹² *Triple play and service bundling: strategies in the European market.* John Delaney and Marta Munoz Mendez-Villamil. Ovum. June 2007.

³¹³ Jazztel:
<http://www.jazztel.com/>.

³¹⁴ Orange: <http://www.orange.es/>.

³¹⁵ *The Prospects For Ad-Funded Mobile Services. Why Ad-Sponsored Mobile Voice And SMS Won't Disrupt the Market.* Niek van Veen, Michelle de Lussanet and Lauriane Camus. Forrester. November 2007.

³¹⁶ Telenor:
<http://www.telenor.com/>.

³¹⁷ Orange France:
<http://www.orange.fr/>.

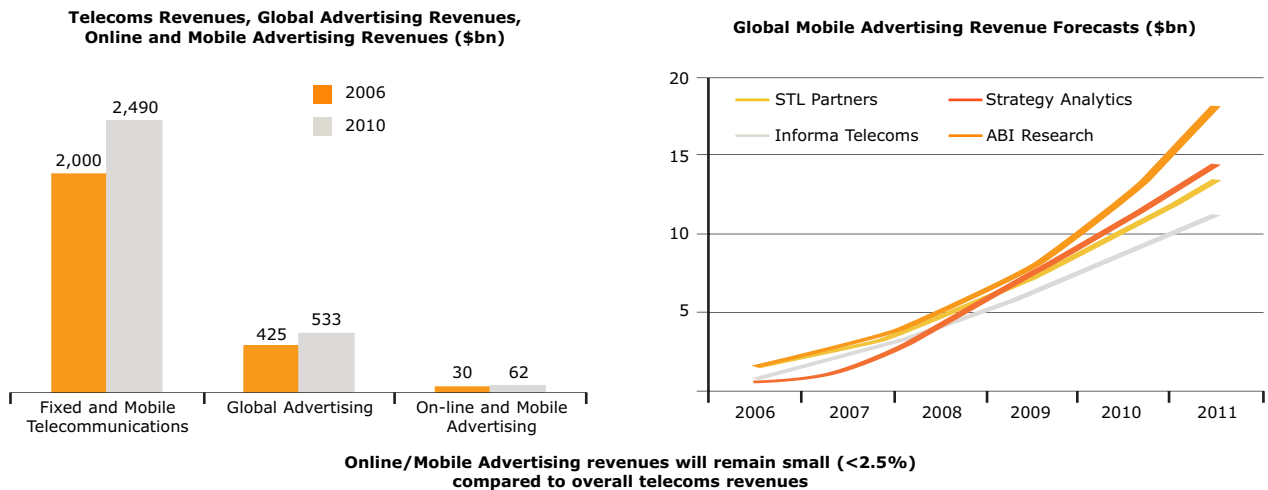


Figure 60. Predicted revenues from advertising.

Source: Mobile Marketing and Advertising, World Market 2005-2011: ABI Research, 2006. Global Mobile Advertising Market Forecasts, 2006-2011: Telco 2.0, March 2007. Global Mobile Advertising Summary 2007-2011: Strategy Analytics, Wireless Media Strategies (WMS) Strategic Advisory Service, May 2007. Global Mobile Advertising Revenue 2006-2011: Informa Telecoms, 2006.

The FTF experts examined the viability of funding the new services being launched in the mobile market with advertisement revenues and most discarded this option.

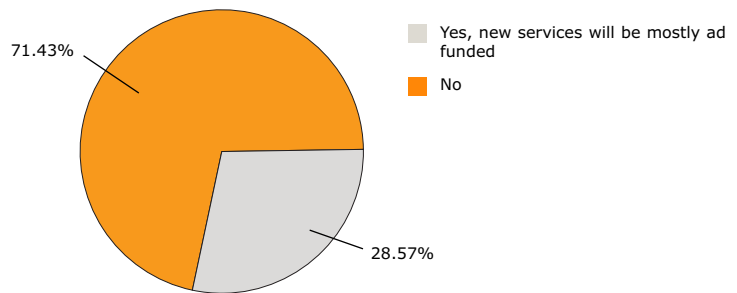


Figure 61. Will new services be ad funded?

Source: drawn from the conclusions within the Future Trends Forum.

In the opinion of the FTF experts, these models may work for some services and players (e.g., **Google**), but they cannot be applied to all new services. They believe that the sort of advertising most likely to succeed will meet the following standards: it must be nonintrusive, offer the customer value, take location into account and be requested by the user. Searches done using mobile devices are an excellent means of achieving this.

Nonetheless, some companies have tried their luck in this terrain³¹⁸. In September 2007, the virtual mobile operator **Blyk**³¹⁹ started operating with an entirely ad-funded business model. **Blyk** operates through the **Orange** network in the UK. Its target market is limited to potential customers between the ages of 16 and 24, who must either be invited by another user or sign up at one of the parties the company organizes. Before signing up for **Blyk**'s services, customers must complete a **detailed questionnaire** about their preferences. **Blyk** offers a SIM card (not a subsidized handset) with 43 call minutes and 217 SMS messages a month for free in return for up to six MMS ads a day. Users save about 350 euros a year. For **advertisers**, **Blyk** offers a high degree of segmentation of the attractive demographic group of young people with strong brand loyalty.

Its model for generating profits is simple, charging 0.07 pounds sterling per SMS ad sent, and 0.22 pounds per MMS. It also creates revenue through calls to other operators that support its "network." Its future business model foresees the possibility of introducing technology that would enable users to buy goods and services directly from their handsets, sharing the revenue with advertisers.

With this strategy, the company had 30,000 customers as of March 2008. The consulting firm **Strategy Analytics** estimates that its ARPU was about 30 dollars per month, or 50% more than the average for prepaid users of the other virtual operators in the UK. So far **Blyk** has done 900 commercial campaigns in the UK for brands like **Coca-Cola**³²⁰, **STA Travel**³²¹, **Penguin**³²², **Buena Vista**³²³ and **L'Oréal**³²⁴, with an average response rate of 29%. This percentage is astoundingly high, given that traditional advertising by mail, Internet or email rarely surpasses 1%. **Blyk** has succeeded in getting consumers to see this advertising as an attractive offer of products and services tailored to the consumer's needs, instead of an invasion of their privacy. **Blyk** just entered the Spanish market in conjunction with **Orange** and will be expanding to Germany and Belgium in the first half of 2009.

8.1.6. Operators share profits from content

The trend in the telecommunications world is to attract new customers by offering enticing applications and services, instead of the mere network access. This new approach to an "application-centric" world jeopardizes the underpinnings of traditional business model used by network operators, which should be modified.

The content business is substantially different from that of the network access, due to its multiplicity, fragmentation, and the variety of players who compete fiercely. Nevertheless, operators have no other choice but to bet on the content area if they want to compensate for the declining revenues generated by voice and messaging services.

With this underlying threat, operators should abandon their walled gardens approach in favor of open models that promote innovation in the content area and increase the revenues generated by them.

³¹⁸ *The Netsize Guide. Mobile 2.0, you are in control.* Netsize. Paris, February 2008.

³¹⁹ Blyk: <http://www.blyk.com/>.

³²⁰ Coca-Cola: <http://www.cocacola.es/>.

³²¹ STA Travel: <http://www.statravel.com/>.

³²² Penguin: <http://www.penguin.com/>.

³²³ Buena Vista: <http://studio.go.com/>.

³²⁴ L'Oréal: <http://www.loreal.es/>.

According to a study by Pyramid Research³²⁵, operators will start adopting open (or federated) models for content distribution, albeit slowly. The majority have worked until now with **walled gardens**, in which content and applications are accessible only through their portals, while outside access to content is restricted (e.g., Vodafone Live!). This model gives operators an iron grip for controlling quality, profits, customers, etc. Its drawbacks, which have already been addressed throughout this study, essentially entail a hindrance for innovation and a risk in terms of the satisfaction of users, who demand an increasingly greater variety of services.

According to Pyramid Research, operators' future lies in their adoption of **federated models**. With these models, operators open up their networks and offer both proprietary and third-party content. This model will promote the development of innovative content by other companies, as well as innovation from users of the open-source community.

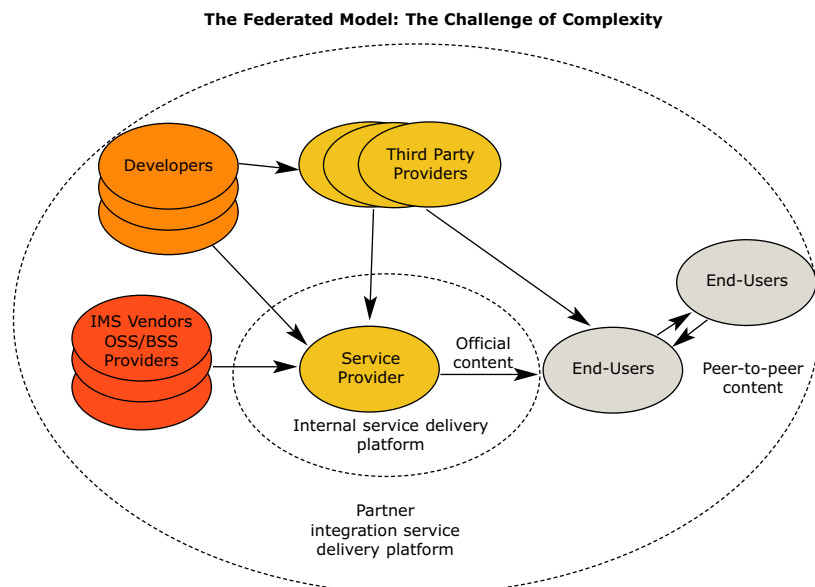


Figure 62. Structure of the federated model.
Source: Pyramid Research.

By this arrangement, operators share profits generated by the use of applications and services developed by third parties. Ideally, these models should not take on "standard" conditions for all content providers. That way, operators should offer better conditions to companies with a brand that has market recognition, such as **Disney**³²⁶ or **Pepsi**³²⁷, which are capable of bringing greater value to the alliance.

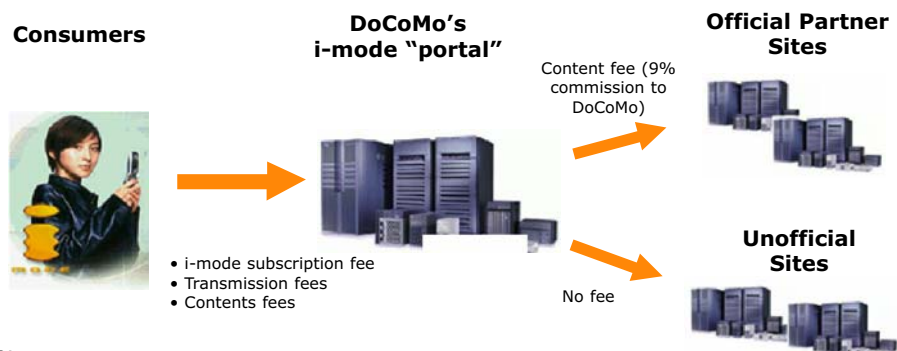
³²⁵ *Walled Gardens and Open Models: IMS Business Models for an Applications-centric World*. Pyramid Research. 2006.

³²⁶ Disney: <http://www.disney.es/>.

³²⁷ Pepsi: <http://www.pepsi.com/>.

One example of this type of business model can be found in **NTT DoCoMo's** i-mode, in which 91% of the profits generated by applications goes to developers.

This alliance has brought substantial profits to the operator, which attests to the validity of these models.



Note:

- Content charge: transaction or subscription based
- Transmission charge: based on data transmitted, not time
- Commission paid for the link on DoCoMo's i-mode menu and micro-billing

Figure 63. The i-mode business model

On the flip side, the agreements in Europe that are most generous to developers offer no more than 50% of the profits.

The rate plans for content vary considerably from region to region:

- Monthly subscriptions are highly popular in Japan (e.g., i-mode).
- In Europe, North America and South Korea, the pay-per-download model is more common.
- In the United States, the intermediate solution of **pay-per-play** is also popular. Users can access content without downloading and are charged time-based fees. This type of billing is starting to be used in Europe.

To summarize, with regard to the mobile content area, the trend is toward a flexibilization of the walled garden models currently used by operators as well as the proliferation of agreements with content developers. Those agreements establish the foundation for profit sharing and are seen as a way to foster innovation and boost operators' revenues for data services.

8.2. The business models adopted by content providers

As seen previously, the content market will be the breeding ground for establishing new agreements (operators/providers). According to the FTF experts, over the next five years most content providers will adopt business models based on strategies that promote profit sharing. Though to a lesser extent, they will also adopt models based on charging users a fee (either content-based or a flat rate).

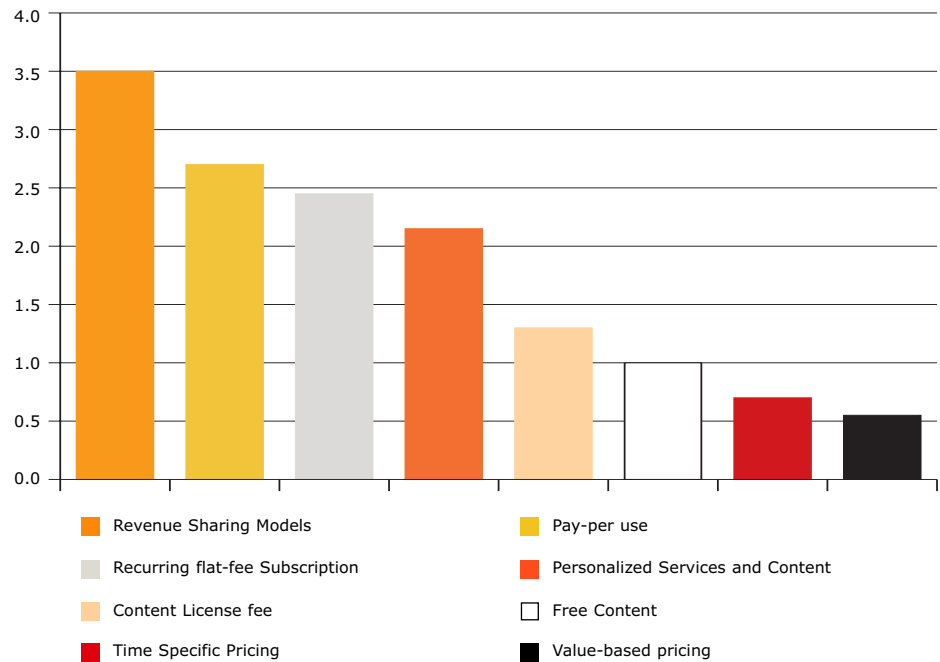


Figure 64. Business models used by content providers in the next five years.

Source: drawn from the conclusions within the Future Trends Forum.

Note: see glossary for description of the different business models.

Currently, the terms governing profit sharing vary according to geographic region. Content providers in Europe often reach deals with operators to the tune of about 50%, while in the United States operators and developers agree to a 30%/70% split, both in sharp contrast to Japan, where operators take in 9% versus the 91% received by content developers. Obviously, the higher the profits seen by developers as a result of these agreements, the greater the stimulus in terms of the content being produced, with consumers ultimately benefiting.

8.3. The monetization of mobile social networks

The experts consider mobile social networks to be among the services offering the greatest opportunities for companies. Nevertheless, as seen with another type of mobile-specific content, one of the outstanding issues for social networks is price. Despite many mobile operators offer flat-rate subscriptions, the number of people signing up for these is relatively minor. Thus, a large amount of customers pay expensive bills—which are often difficult to decipher—as a result of signing onto the mobile social networks.

Mobile social networks represent one of the most successful services, given that they account for much of the traffic on the mobile Internet. In specific terms, the figure equates to 40% worldwide, according to the study *State of the Mobile*

*Web*³²⁸, conducted by the developer of the mobile browser Opera Mini. And in some markets, such as the United States, South Africa and Indonesia, the percentage climbs above 60%. According to forecasts, global revenues generated by mobile social networks will go from the 572 million dollars reported in 2007 to over 5.7 billion dollars in 2012.

In addition to encouraging traffic, mobile social networks offer other advantages to operators and their partners. Since they are based on user-generated content (UGC), they have low production costs and provide rather attractive services, something that helps reduce customer churn.

Agreements between wireless carriers and the top social networks of the online world **are nothing new**. In the United States, **AT&T**³²⁹, **Sprint**³³⁰, **Verizon**³³¹ and **Virgin Mobile**³³² have associations with **Facebook**. In Europe, **Vodafone** followed suit with **MySpace** as did **Orange** with **Bebo**. One of the agreements consists of revenue sharing with operators on the traffic generated by these major exponents of social networks³³³.

No one wants to stop riding this wave, which promises high profits despite the remaining doubts as to how that will be achieved. As seen with other services, advertising is beginning to look like a valid option for users to lower their phone bills and for companies to generate revenues. Nevertheless, this model has not been adequately deployed in the mobile market, given that operators thus far have focused more on including the cost of the data traffic to the content price.

Some companies, such as **Jumbuck Entertainment**³³⁴ (Chat Del Mundo), have started to integrate ads in their social networks. Meanwhile, **Itsmys.com**³³⁵ launched the first mobile social network with advertising and **MySpace** presented an ad-funded, mobile version of its site.

While most of the experts on this topic believe that mobile social networks will be financed primarily by advertising, others say that the addition of new location-based services will give viability to new rate plans. The social network known as **The Grid**³³⁶ is a good example.

In addition to the lack of clearly defined business models for making mobile social networks profitable, there is another factor that could put the brakes on these services in the medium term: 3G networks are not designed to support two-way data traffic. While downloads do not present problems, uploading is still a rather slow process.

Some experts on the matter are starting to wonder whether the networks are prepared to handle a massive increase in the number of users accessing data applications such as social networks. Although operators are trying to build up usage on services like these, the fact is that the more it grows, the slower and more unsatisfactory the user experience will be. If that happens, users may end up going away.

³²⁸ Movilsur. 2/08/2008. Article: "Redes sociales móviles: una red".

³²⁹ AT&T: <http://www.att.com/>.

³³⁰ Sprint: <http://www.sprint.com/>.

³³¹ Verizon: <http://www.verizon.com/>.

³³² Virgin Mobile: <http://www.virginmobile.com/vm/home.do>.

³³³ Tendencias de las telecomunicaciones. 7/12/2007. Article: "Las redes sociales móviles empiezan a generar negocio." http://www.tendencias21.net/Las-redes-sociales-moviles-empiezan-a-generar-negocio_a1953.html.

³³⁴ Jumbuck Entertainment: <http://www.jumbuck.com/>.

³³⁵ Itsmys.com: <http://www.itsmy.com/>.

³³⁶ The Grid: <http://www.thegrid.co.za/>.

So, then, how can the popularity of mobile social networks network be built up without overcrowding the Web? In one fell swoop, 4G technology will come wipe away all of these concerns and customers will be able to upload and download at the same speed. For now, operators will have to take a careful look at whether or not they are sufficiently prepared to support a growing number of subscribers to these new services.

8.4. Emerging profits in location-based services

Location-based services are another area for which the FTF experts have better forecasts. According to Gartner Group³³⁷, users of mobile location-based services will go from 43,000 in 2008 to 298 million in 2011 in Western Europe, North America, Asia-Pacific and Japan. Although browsing is currently the primary use for these systems, service providers and mobile operators ought to start capitalizing on other applications (mobile social networks, etc.) in order to increase their market share. With this expanded range of services and increased competition, prices could foreseeably come down, which could translate into a higher number of new users.

	2006	2007	2008	2009	2010	2011
Western Europe	5.5	262.0	3,587.1	12,119.4	29,510.6	55,266.3
North America	2,035.3	4,855.1	14,733.7	27,152.8	48,696.7	71,456.6
Asia/Pacific	1,625.9	5,436.9	15,410.8	36,051.2	68,115.9	117,153.5
Japan	3,320.9	5,523.2	9,428.9	20,000.8	35,553.6	54,084.5
Total	6,987.6	16,077.2	43,160.4	95,324.2	181,876.8	297,960.9

Figure 65. Subscriber forecast for location-based services: 2006-2011 (thousands).
Source: Gartner (January 2008).

³³⁷ *Dataquest Insight: Location-Based Services. Subscriber and Revenue Forecast, 2006-2011.* Gartner. January 2008.

Wireless Developer Network.
Article: "It's the (LBS) applications, stupid!"
http://www.wirelessdevnet.com/features/williams_lbs01/.

Although the infrastructures for location-based services are already available, the decision has not been made as to how to achieve profitability on mobile location-based services. These services cover practically all aspects related to human mobility: navigation, health, security, valuable promotions, entertainment, travel assistance, workforce management, etc. (see Figure 66³³⁸).

End User	Business
Health: location of medical alerts.	Security: security of employees, control of security area.
Family security: family monitoring, tracking children after school as well as young people, pets, searches in special areas (shopping centers, public events, zoos, etc.).	Business processes: management of sale force, fleets, searches at the office.
Entertainment: games (paintball, hide-and-peek, etc.), searches for people (singles, friends, etc.), site guides.	Vertical industries: medical searches, at shopping centers, for vehicles, etc.
Viral communities: searches for social networks, special-interest communities (sports, events, concerts).	Education: searches for colleagues, events, getting around campus.
Telemetry: navigation assistance, alerts for lost items.	Telemetry: alerts for inspection and safety of machinery.
Driving: navigation assistance, traffic alerts, roadside assistance.	Driving: navigation assistance, traffic alerts, roadside assistance.
Yellow pages: location of cash machines, restaurants, venues, shops, etc.	Yellow pages: location of cash machines, restaurants, venues, shops, etc.

Figure 66. Applications for location-based services.
Source: Wireless Developer Network.

Each of these services could be aimed at a specific audience: parents, singles, young people, students, online communities, executives, etc. Consequently, it seems reasonable to create a business model aimed at satisfying the true motivations and needs of each group of users. That would be the only option they would be willing to pay for, whether that be based on a set monthly fee, usage or other possible rate plans.

Therefore, the business model ought to be founded on set **functionality packages** (according to the applications of location-based systems). For instance, there could be security packages, for locating family members or pets, or packages for students, who could locate their friends and find out where events and courses are taking place on the university campus. In other words, using a strategy designed around market niches could be a feasible option for companies.

That would allow for a differentiation of the strategies used by traditional companies and operators:

- **Operators** should identify the applications that boost the ARPU of an important base of customers, as well as attracting new subscribers, increase data traffic, allow for expansion into new geographic regions, reduce customer churn, etc.

- **Traditional companies** should focus on applications that: allow them to promote sales for their key business products, translate into new sources of revenue, cut operating costs (i.e., reducing incoming call-center activity and the number of sales representatives per account), improve customer satisfaction, etc. In any case, there are a number of questions that should be asked before a company launches its mobile location-based services, such as:
 - **How can we differentiate ourselves from the competition to attract customers?** Should our services be based on vouchers, discounts on prices or product packages?
 - **What financial incentives will we offer our users?** Should we offer just one incentive per product or several per product package? Companies must also remember that there should be differentiation between what they offer to new, recurring and loyal customers. The incentive strategy should be structured according to each particular case.
 - Moreover, location-based services can be used for **keeping up demand** for products and services at off-peak hours. Therefore, companies ought to ask themselves what type of strategies and offers they should use to entice customers to those time slots.

In any event, companies must consider the applications offered by location-based services and develop according to that the strategy that better suits their business.

Meanwhile, service providers still have **other issues** to address, namely: Will the infrastructure cost prove to be excessive in relation to the profits that could be generated by increased product demand? Will the infrastructure be prepared to handle the influx of customers?

8.5. Business models focusing on mobile devices

We are constantly seeing the appearance of new business models focusing on handsets. Meanwhile, the key player investing on mobile devices also continues to expand: content owners, service providers, application developers, etc. The opening of networks and handsets is obviously an important factor, but there are others to keep in mind as well. The maturity of the market and the rise of data services is bringing increased strategic value to handsets.

As observed by the consulting firm CSMG, the waning control of operators is giving rise to new opportunities for other companies. Figure 67 shows the emerging business models focusing on handsets. These models are unimaginable in a closed market.

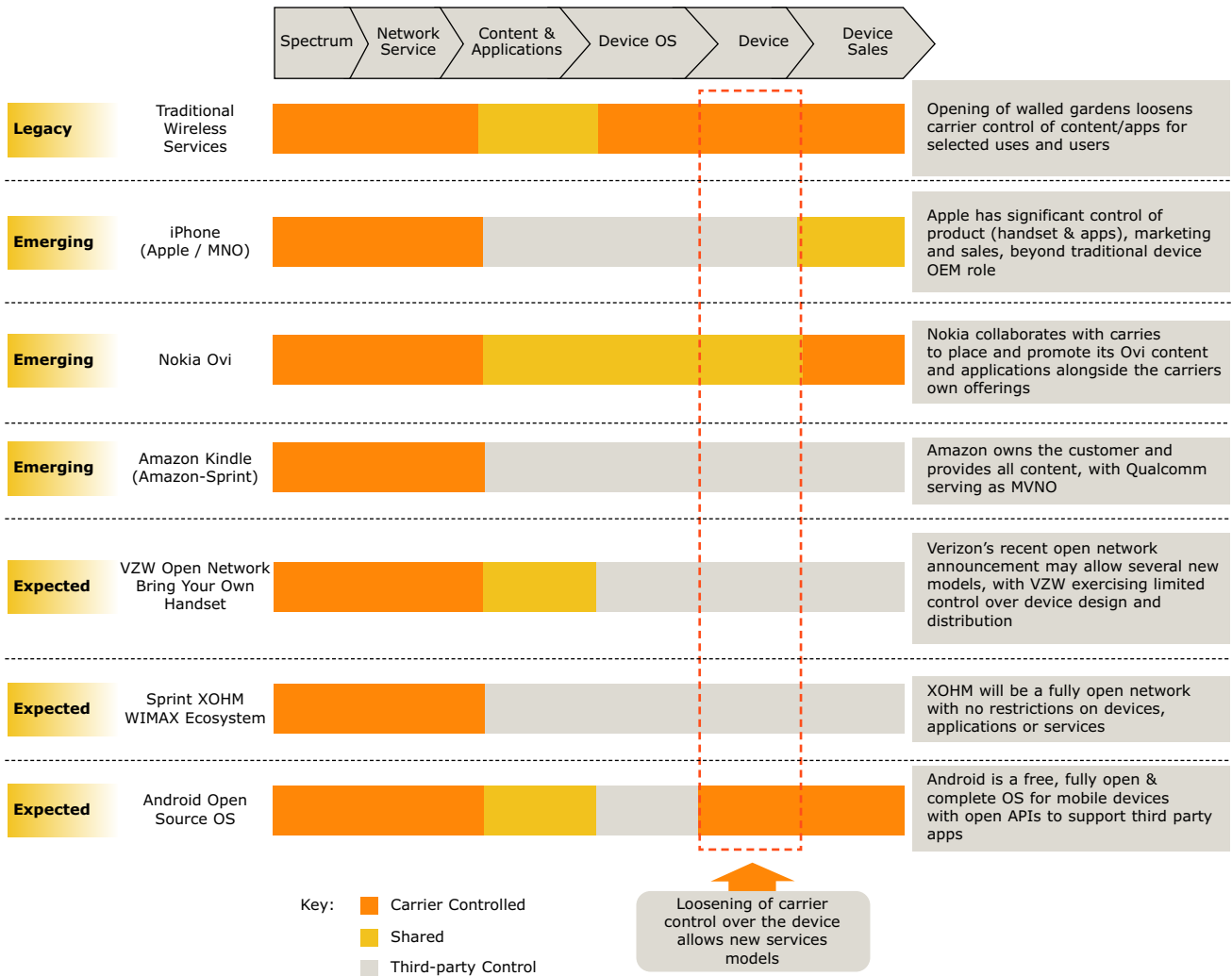


Figure 67. Emerging handset-focused business models. Source: CSMG.

With respect to manufacturers' business models, the pressure to lower prices on their handsets will force them in the short term to reinvent themselves as online service providers. **Nokia** with its Ovi, **Sony Ericsson** with PlayNow and **Apple** with iTunes are previews of what lies ahead.

8.5.1. iPhone brings about changes in business models

With the iPhone, **Apple** unleashed a new business model that is changing the rules of the game for mobile network operators. With it, operators must agree to revenue sharing, long-term market exclusivity, and the use of the **Apple's** popular iTunes site.

The iPhone has managed to alert operators to the threats posed by manufacturers and content-provider sites in the short term. Moreover, the business model³³⁹ by which iPhone profits are shared gives **Apple** a significant portion of the voice and data revenues, while the device itself also constitutes a primary source of revenue for future services. Operators, meanwhile, are playing a supporting role in stimulating the use of wireless data among their subscribers, in addition to having done little to promote innovation in mobile advertising.

With the success of the iPhone in the United States causing people to change wireless service providers, power has been shifted from carriers to handset manufacturers, who can now demonstrate their capacity for creating higher demand, as well as increasing competition between carriers.

It is expected that the new business model ushered in by the iPhone will be the first of many to appear on the horizon. In this context, mobile operators will have to find an effective way to deal with these threats.

8.5.2. The highly anticipated handset from Google

The anxiously awaited opening-up of mobile operating systems has recently materialized in a number of handsets. **Google** has launched the Android platform³⁴⁰, a set of open-source software that four industry manufacturers—**Samsung**³⁴¹, **HTC**³⁴², **LG Electronics**³⁴³ and **Motorola**³⁴⁴—have included on newly released phones.

The operating system provides access to all of **Google's** services—Web search, Google Maps, Gmail, etc.—on any handset with an Internet connection, without needing to be in front of a computer. Most importantly, its use of open-source software allows programmers to develop applications, and thus fosters innovation in the sector.

As it is well known, **Google's** business model generates most of its revenues (which could reach 16 billion dollars this year) from the ads that it displays alongside its Web search results. Offering its services on handsets will allow the company to reach more subscribers and drive revenues up even further.

Analysts at Oppenheimer & Co.³⁴⁵ cited in the American press have estimated that the search-engine company could see an annual turnaround of 4.8 billion dollars from its mobile business just two or three years after the launch of its new platform.

8.6. The impact of the opening of the mobile market on the business models of traditional companies from all sectors

The panel of FTF experts examined the impact that the opening of the mobile market and the ensuing progression in the range of mobile solutions available will have on the business models of traditional companies. The majority reached

³³⁹ *Why Apple's Business Model Works and Why Media and CE Companies Need to Pay Attention.* Van L. Baker and Mike McGuire. Gartner. January 2008.

³⁴⁰ Google. "Android – An Open Handset Alliance Project." <http://code.google.com/android/>.

³⁴¹ Samsung: <http://www.samsung.com/es/>.

³⁴² HTC: <http://www.htc.com/es/>.

³⁴³ LG Electronics: <http://es.lge.com/>.

³⁴⁴ Motorola: <http://www.motorola.es/>.

³⁴⁵ Oppenheimer & Co.: <http://www.opco.com/>.

the conclusion that this will impact business models to a greater (43%) or lesser extent (14%).

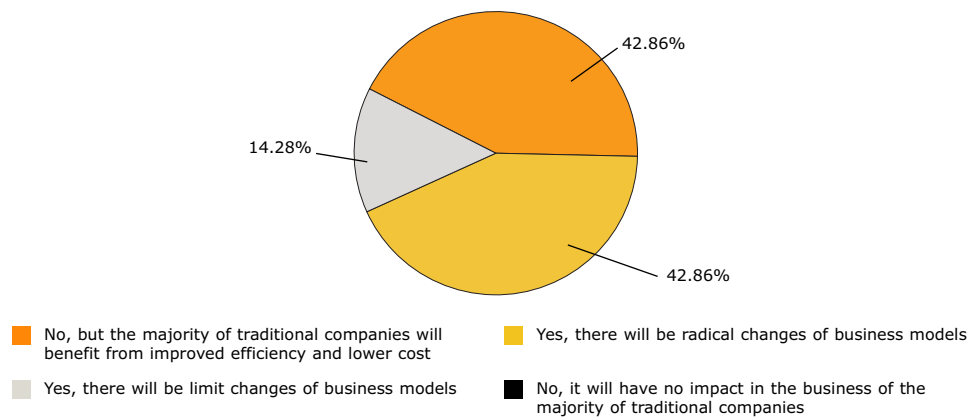


Figure 68. The impact of the opening of the mobile market on the business models of traditional companies from all sectors.

Source: drawn from the conclusions within the Future Trends Forum.

Companies from all sectors will benefit from increased mobility as well as new sales, marketing, and product-distribution channels, etc. (see Chapter 6). For some of these companies, the new options will entail a change in their business models, while for others it will simply help cut costs and improve efficiency.

8.7. Conclusions about changing business models in the new landscape

As seen throughout this study, the opening of the mobile networks will have an impact on companies' business models, and will reach not only those involved with the mobile market, but those outside the sector as well. One undeniable fact is that innovation is essential for creating new business models that can justify investments made by the sector's companies as well as stimulate the market.

With regard to access, operators are facing a situation in which voice revenues have stagnated and data usage numbers are still extremely low, just as competition is intensifying. The situation is forcing them to transform their existing walled garden approaches in order to adapt to this new landscape. Flat rates, service packages and capitalizing on advertising are emerging as alternatives for them to attract a greater number of customers and boost their revenues.

As far as content distribution is concerned, one key area will involve the structuring of profit-sharing arrangements between operators and providers in the interests of increasing both the quality and quantity of services that are appealing

to a larger number of users. Advertising should be seen as a way to complement their profits, although it will be quite difficult to achieve total profitability for the new services.

With regard to mobile devices, we can affirm their increased importance in the market, which is giving rise to new business models designed specifically for them. These models help take some of the control away from operators, as in the case of the iPhone or the new **Google** phones.

Meanwhile, the impact on the business models of traditional companies will be greater or lesser depending on their use of mobile solutions.

Finally, mobile social networks and location-based services promise significant opportunities for companies that can find ways to properly capitalize on them. Nevertheless, in light of the current situation it is not yet clear how they will generate profits. With regard to mobile social networks, some companies are starting to integrate advertising, but doubts remain as to whether that will be sufficient. The inclusion of location-based services as a new dimension in social relations could bring about other means of generating profits. With respect to mobile location-based services, the question is how this technology will attract customers and what is the best way to do that without it being perceived by consumers as invasive.