GSMA Intelligence

ANALYSIS

Setting the scene for future MVNO growth

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Contents

Executive summary

MVNOs' once-innovative offers are now commonplace in developed markets

Half of all mobile virtual network operators (MVNOs) worldwide are likely to be challenged by the industry trends highlighted in this research. This is forcing new MVNOs to rethink and leverage their differentiating factors, focusing on alternative business models in particular.

Over the past 15 years, MVNOs have stimulated mobile competition and introduced a number of innovative mobile tariffs and services, with the primary goal of attracting niche consumer segments at a lower cost than mobile network operators (MNOs).

However, GSMA Intelligence believes that the innovative offers that once made some of these virtual operators successful and unique have since become common market features across most developed economies. Moreover, as demonstrated in this study, MVNOs' margins are thin and in most cases entrenched in negative territory. MVNOs' survival in saturated developed markets now depends on their ability to:

- adapt to ongoing and upcoming industry trends
- leverage innovation (technology, billing solutions, tariffs)
- target niche or 'underserved' consumer segments.

The MVNO market is fragmented

Our analysis shows that the MVNO global footprint is fragmented, with up to eight different MVNO segments and three types of structure (co-branding, light MVNO and full MVNO). While this level of fragmentation provides a testbed for innovation, two categories of MVNO in the developed world (encompassing 50% of all MVNOs worldwide) are particularly likely to be challenged:

- prepaid-only MVNOs that primarily focus on discounted offers
- contract-only MVNOs that primarily focus on discounted and bundled offers.

MVNOs in these two categories tend to differentiate on discounted – often 'unlimited' – voice and text deals, contract-free offers, and a limited portfolio of data packages. However, these offers that once provided MVNOs with a competitive edge and appeal have become common market features. Our primary research shows that close to half of consumers in the developed world subscribe to an unlimited voice (42%) and unlimited text (47%) offer, while migration of users from prepaid to contract in the developed region is accelerating, making it more difficult for prepaid MVNOs to retain customers.

Prepaid-only MVNOs focused on discounted offers are also facing intensifying competition from incumbent MNOs, creating an unsustainable market environment as effective price per minute (EPPM) hits rock-bottom limits and voice revenue growth moves into negative territory.

MVNOs must find new, innovative ways to differentiate

Our research identified 13 current and upcoming industry trends that are changing the dynamics of the market and adding to the competitive pressure these MVNOs face. These trends include convergence, consolidation, MNOs' focus on data monetisation, and the proliferation of the MNO multi-brand (or sub-brand) strategy.

Some of the most successful MVNOs to date (e.g. TracFone, Laposte Mobile, Virgin Mobile, Telmore, Lycamobile, and M6 Mobile) have well established brands, often from adjacent businesses, in their respective markets. They are targeting their existing customer bases and exploiting niche segments. As shown in our study, the MVNO business model is not a scale game, but a niche game in which players have to continue to find innovative ways to differentiate.

The next wave of MVNO launches in the developed region will see more examples of players introducing alternative business models – but this does not guarantee longevity, as demonstrated in the analysis. Some are already differentiating their propositions through a focus on mobile broadband connectivity and access; social sharing; gaming and OTT apps; digital commerce and money services; specific (often local) communities; and emerging Internet of Things solutions.

MVNO presence continues to spread globally

According to the GSMA Intelligence MVNO tracker, the number of MVNOs worldwide increased by 70% between June 2010 and June 2015, crossing the 1,000 mark. As of June 2015, 1,017 MVNOs were in operation across 75 countries, while 210 players have either merged or ceased business over the past 15 years.

MVNOs are a developed world phenomenon; almost four out of five MVNOs globally are located in the developed world. MVNOs' presence has more than doubled in the developing world over the past five years, but presence remains limited. As of June 2015, MVNOs are in over 30 countries across the developing region, up from 13 countries in June 2010.
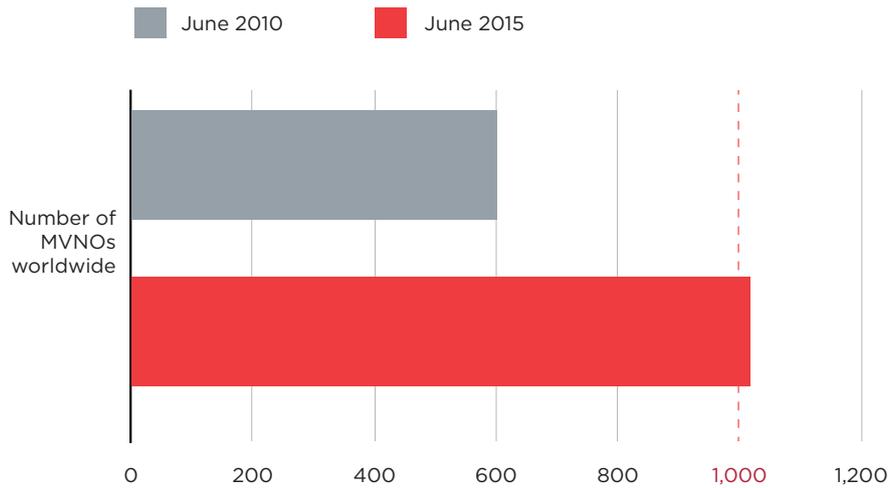

Figure 1: Total number of MVNOs in operation, June 2010 versus June 2015
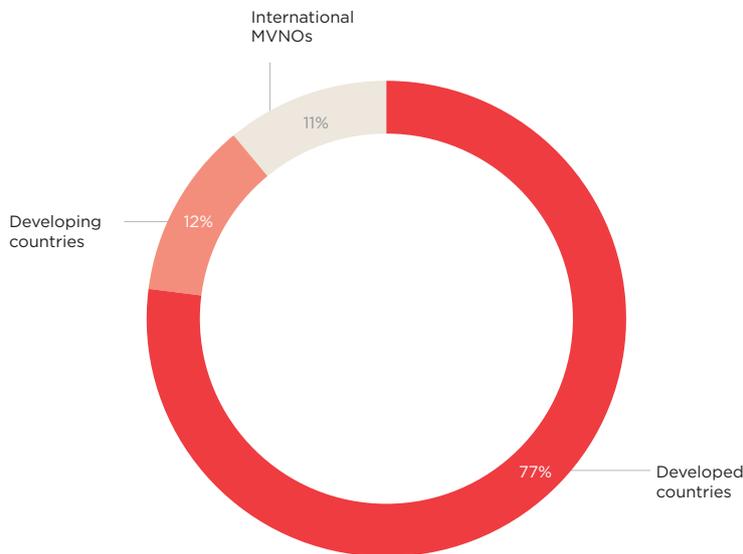*Source: GSMA Intelligence*

Figure 2: Regional distribution of MVNOs, June 2015
Source: GSMA Intelligence

The ten countries with the largest number of MVNOs in the developed region are Germany (129), the US (108), the UK (76), the Netherlands (56), France (49), Australia (43), Denmark (43), Spain (35), Belgium (26) and Japan (23).

Within the developing region, the five countries with the greatest number of MVNOs are Poland (27), Russia (16), Malaysia (13), China (11) and Chile (8). A large number of MVNOs (34) have been issued licences in China but they have yet to launch commercial services. These would more than triple the number of virtual service providers in the country and move it to the top of the rankings.

A third category has been included in our MVNO geographic classification to identify the 'international' players. These MVNOs have no geographic frontiers; they mainly target roamers and are not market-specific. International MVNOs accounted for 11% of all MVNOs worldwide as of June 2015, a share that has remained stable over the past five years.

Over the next five years, we expect more countries to allow MVNOs to launch. However, MVNO presence will remain mostly in the developed region. The developing region will continue to see only a limited number of countries fully embrace MVNOs (albeit large markets such as the BRIC countries).
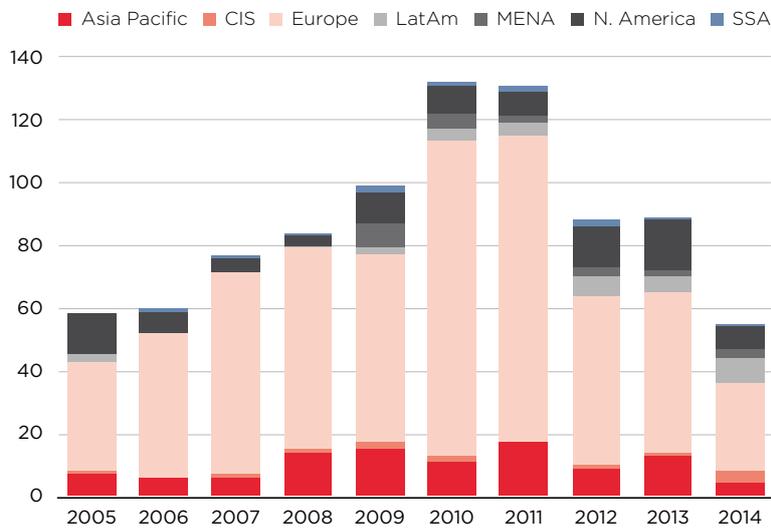

Figure 3: MVNO and sub-brand launches by region, 2005–2014 (where launch dates are known)
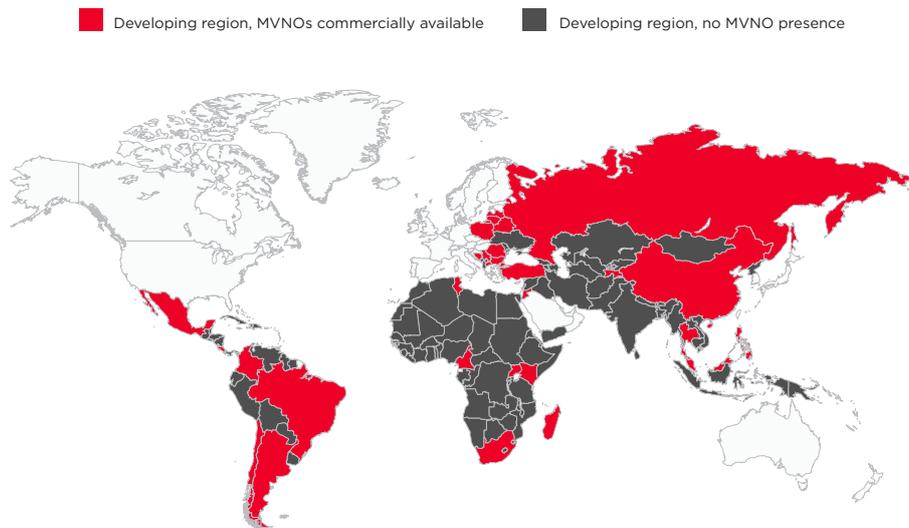*Source: GSMA Intelligence*

Figure 4: Developing region, MVNO commercial presence, June 2015
Source: GSMA Intelligence

The MVNO market is fragmented

GSMA Intelligence defines eight categories of MVNO (see Figure 5). This shows the level of fragmentation shaping the global MVNO footprint and will determine the success and longevity of any given MVNO.

Discount: an MVNO whose main proposition is low-cost services

Telecom: an MVNO whose offering forms part of a range of telecom services such as fixed-line phone and broadband internet

Media/Entertainment: an MVNO associated with the media or entertainment industries

Roaming: an MVNO whose offering is typically targeted at international travellers through roaming agreements with MNOs across multiple markets

Migrant: an MVNO whose primary offering focuses on international voice services

Retail: an MVNO associated with the consumer retail industry

Business: an MVNO whose primary offering targets business customers

M2M: an MVNO that supports (embedded) machine-to-machine services

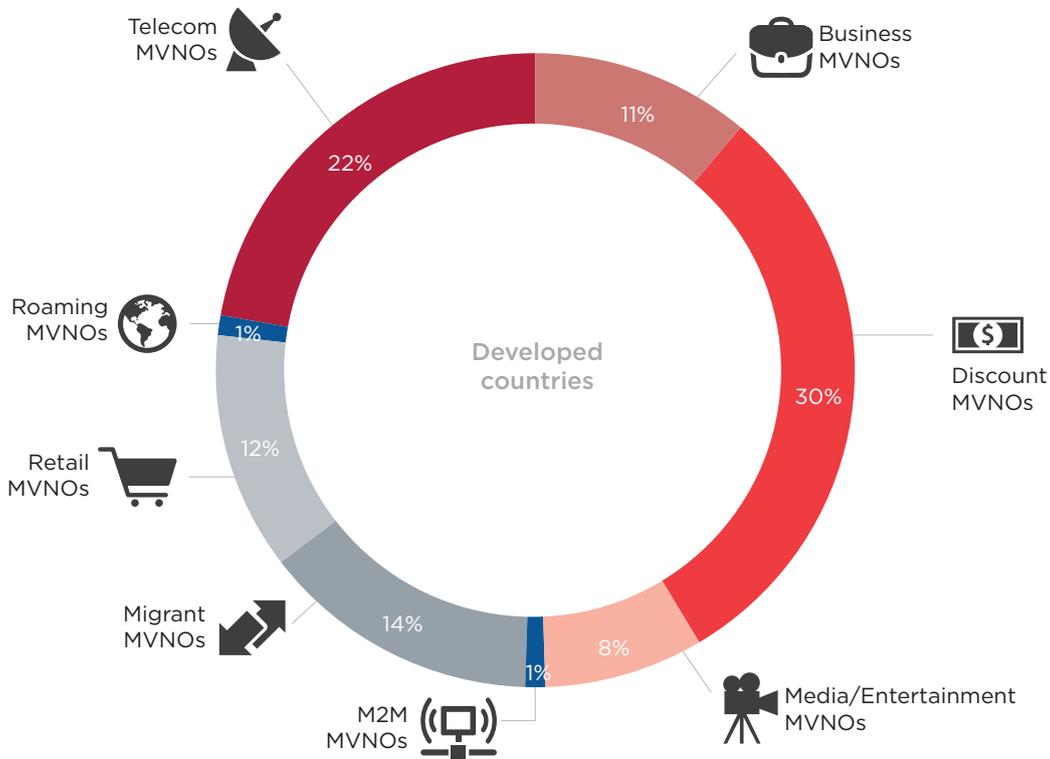**Figure 5:** MVNO segmentation
Source: GSMA Intelligence

Figure 6: Developed region, distribution of MVNOs by category, June 2015
Source: GSMA Intelligence

This segmentation can be supplemented with analysis of tariffs offered. Players can be divided into one of three options: prepaid-only, contract-only or a mix of both. In the developed region, there is an almost even split between players that offer prepaid-only and contract-only tariffs (as shown in Figure 7). In the developing region, prepaid-only players are more prevalent. Across both regions, only 13–14% of MVNOs offer both prepaid and contract tariffs.
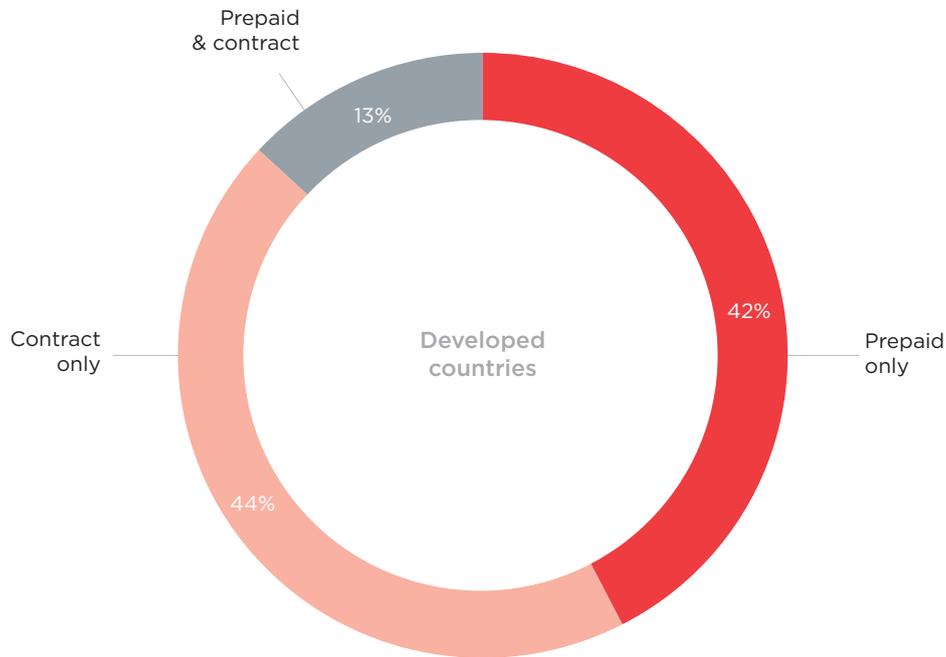

Figure 7: Developed region, distribution of MVNOs by tariff type, June 2015

Source: GSMA Intelligence

The MVNO model is not a scale game; it is a niche game. MVNOs' primary raison d'être is to attract and retain niche consumer segments at a lower cost than a network operator, since MVNOs have lower opex than MNOs. Overall, MVNOs with large connection bases – more than 1 million – are exceptions.

Across both regions, the discount and telecom categories tend to account for the largest number of players – but this does not necessarily mean that they control the largest shares in terms of volume or value. The category of MVNO does not itself necessarily ensure greater success in terms of connection volumes: among the 70 unique MVNOs worldwide that reported data in Q4 2014 (see Figure 8), connection bases varied considerably across all categories, ranging from less than 1,000 to more than 3 million, with a mean of 425,000 overall.

Given the limited number of MVNOs that reported data in Q4 2014, the data set cannot demonstrate a statistical correlation between type of MVNO and connection base. Nevertheless, the data suggests that MVNOs in the media/entertainment category tend to have connection bases that are on average larger than MVNOs in other categories. This is not surprising considering that most MVNOs in this category benefit from a parent company's established scale and brand (for example, Virgin), while MVNOs in other categories tend to target specific niche markets and are therefore not necessarily targeting high connection bases.
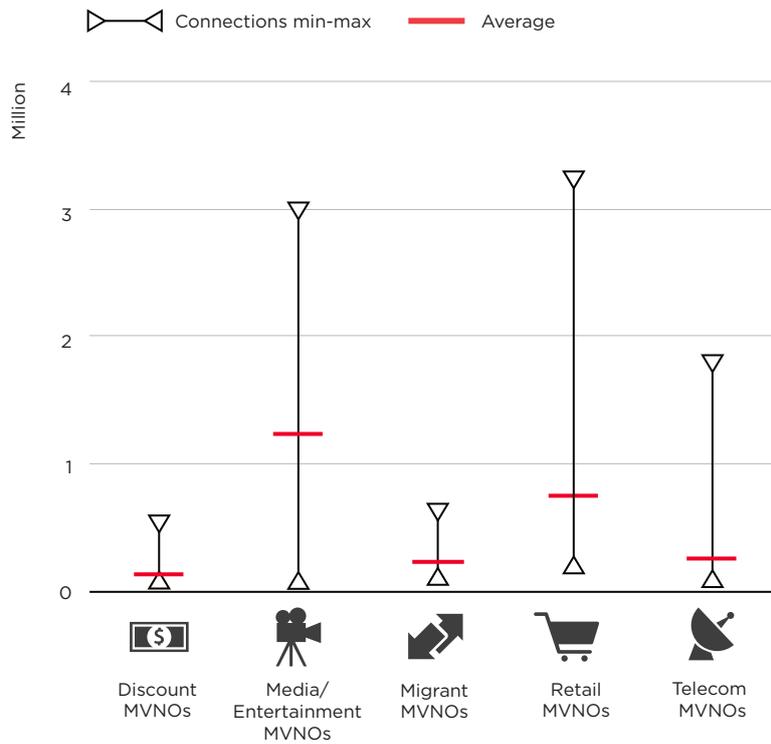
Figure 8: MVNO connections by segment (selected operators), Q4 2014
Note: Limited to 70 operators worldwide that reported data during the period
Source: GSMA Intelligence

Similarly, the category of MVNO does not itself necessarily ensure greater success in terms of profitability. EBITDA margins reported by MVNOs are notoriously low. Analysis of the latest reported figures shows that the margins of virtual players tend to stall within negative territory (see Figure 9). Across the 20 operators worldwide that reported EBITDA between 2013 and 2015, quarterly EBITDA margin stood at –260% on average.

Removing virtual operators that constantly report negative values, average quarterly margins stood at 11% during the period. This falls to 8% when excluding large MVNO groups (e.g. Drillisch Telecom and America Móvil). In comparison, MNOs' quarterly EBITDA margins stood at around 30% between 2013 and 2015.

This demonstrates the difficult market conditions that MVNOs face, operating in a low-profit environment where prices have hit rock-bottom limits and where markets are fully saturated. It therefore reiterates the importance of carefully selecting the right business model to reach the right audience and long-term profitability. Analysis of reported figures shows that for the operators that returned a positive EBITDA margin during 2013–2015, it took them on average three years from launch to break even, with quarterly margin thereafter averaging less than 10%.

The MVNOs that manage to reach high connection bases or relatively high margins are generally the exceptions, with most of them backed by a well-established parent company and brand. One of the most successful MVNO players globally – America Movil's TracFone – passed the 25 million connections mark in 2014, but is still recording relatively thin profits, with a quarterly EBITDA margin of 11% in Q2 2015.
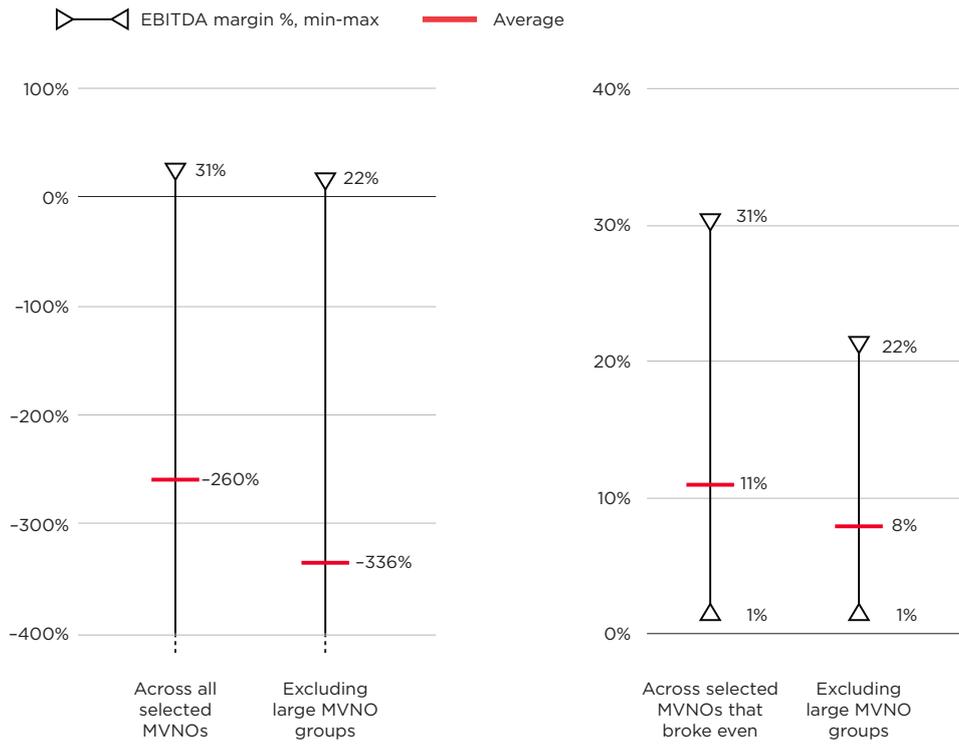
Figure 9: Developed region, EBITDA as % of total revenue (selected operators), 2013–2015
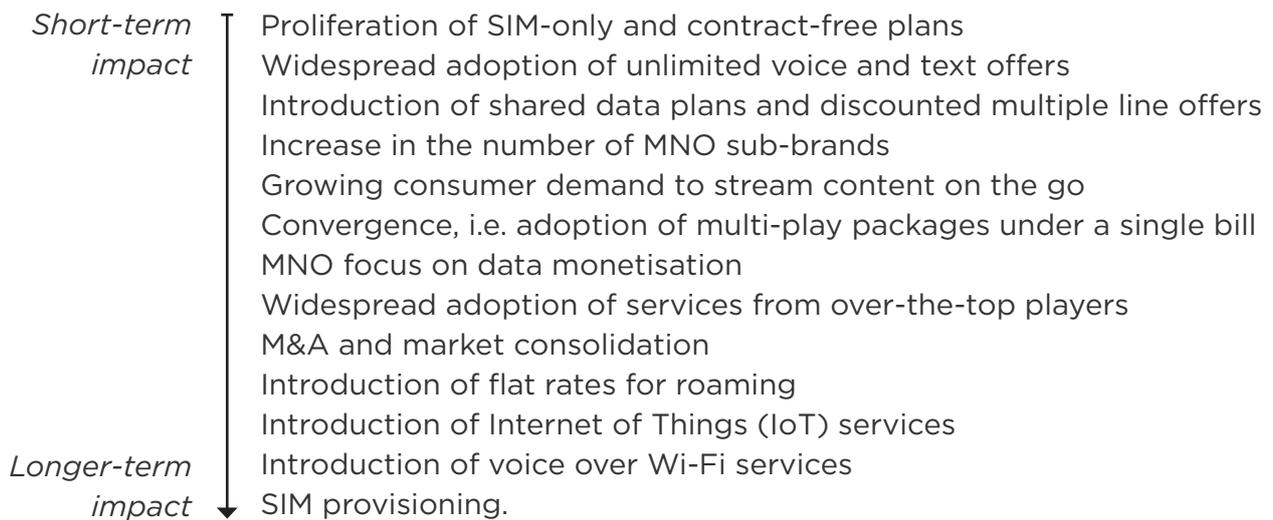*Note: Limited to 20 operators within the region that reported data during the period*

Source: GSMA Intelligence

Industry trends will change the MVNO landscape

The level of fragmentation allows MVNOs to differentiate, target specific niche markets and focus on profitability. Indeed, fragmentation is necessary to allow MVNOs to thrive, but in order to survive MVNOs also have to adapt to the changing market environment.

A number of ongoing and upcoming industry trends will affect the MVNO landscape. These trends include the following:

Short-term impact

Proliferation of SIM-only and contract-free plans
Widespread adoption of unlimited voice and text offers
Introduction of shared data plans and discounted multiple line offers
Increase in the number of MNO sub-brands
Growing consumer demand to stream content on the go
Convergence, i.e. adoption of multi-play packages under a single bill
MNO focus on data monetisation
Widespread adoption of services from over-the-top players
M&A and market consolidation
Introduction of flat rates for roaming
Introduction of Internet of Things (IoT) services
Introduction of voice over Wi-Fi services

Longer-term impact

SIM provisioning.

Some of these trends are likely to have a positive impact, such as the introduction of IoT services, allowing players from adjacent industries to enter the MVNO market and package innovative mobile offers. However, most of the trends reflect the rapid transformation that MNOs are going through to adapt to a world where data and content are becoming determinant differentiators – and these trends will disrupt the current MVNO landscape.

Our analysis shows that 50% of MVNOs in the developed world (390 players) are likely to be challenged by these ongoing and upcoming industry trends over the next five years.

These players include:
*   discount MVNOs that focus on prepaid-only offers (see Figure 10)
*   discount and telecom MVNOs that offer contract-only tariffs (see Figure 11).

Most players in the first category tend to offer a limited set of tariffs focused on discounted voice minutes and text allowances. Data allowance does not form the main proposition for most of these players, which also tend to offer a limited portfolio of handsets. The main marketing propositions for most players in this category are based on "talk more for less", "low-cost calls", "cheaper international roaming rates", "free texts", "free SIM", "no contract" and offers built around the bring-your-own-device principle.

In the second category, players include local, smaller fixed-line and ADSL providers packaging mobile SIM-only plans. Most players in this category offer "unlimited plans", "cheap fixed line calls", "cheap internet", "free fixed line", "mobile freedom" and "wireless internet service for your home".

In most cases, the innovation that made players in these categories successful is now commonplace in developed markets, with MNOs building competitive data propositions on top, taking away the competitive edge that MVNOs once benefited from. MVNOs in these categories will increasingly struggle to adapt their traditional models to the changing market environment and the importance of data services. This is already the case in large and saturated MVNO markets such as France.
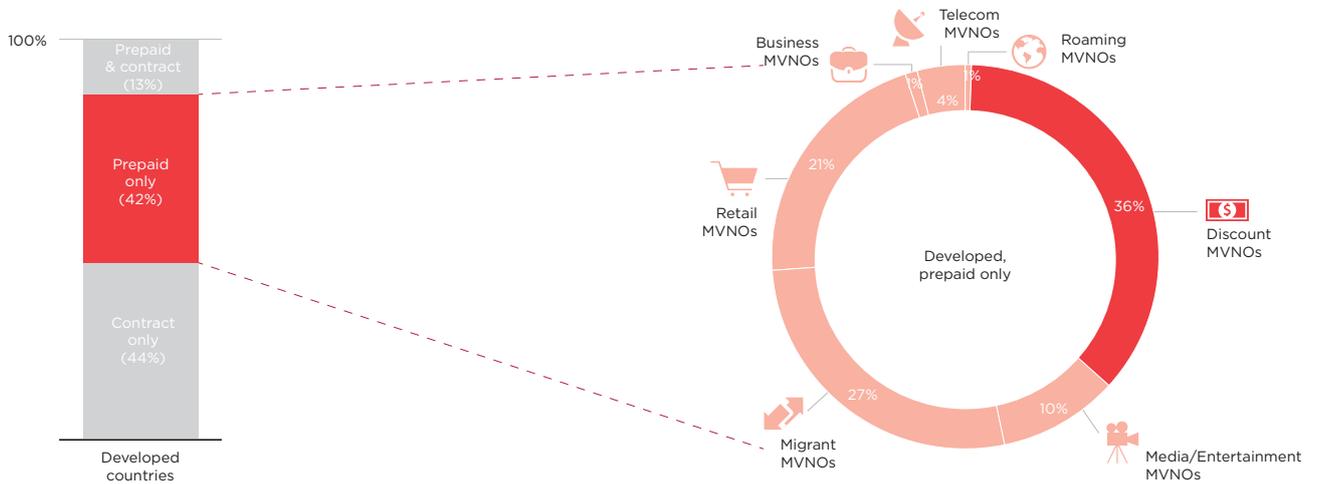
Figure 10: Developed region, distribution of MVNO segments, prepaid only, June 2015
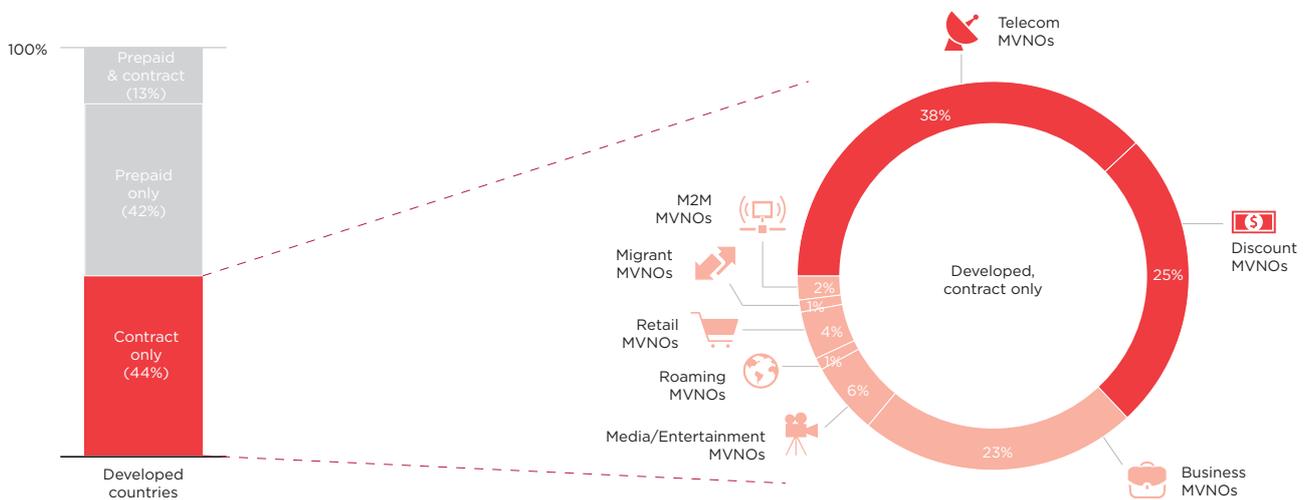
Source: GSMA Intelligence

Figure 11: Developed region, distribution of MVNOs, contract only, June 2015

Source: GSMA Intelligence

Case study: French MVNOs under pressure

France is a saturated mobile market, with unique subscriber penetration at 74% of total population and smartphone adoption at 76% of total connections. Growth in the country has moved into negative territory in 2015, with quarterly connections growth declining by 0.45% on average in both Q1 and Q2 2015, while recurring (service) revenues shrank by almost €200 million between 2013 and 2014.

According to regulator ARCEP, the market landscape has changed rapidly since the widespread introduction and adoption of SIM-only offers in 2010, contract-free offers in 2011, the ubiquity of high-volume SMS and data plans, and the development of quad-play offerings. In addition, the launch of low-cost MNO sub-brands in 2010 had an impact on the market, as incumbents prepared for the launch of new entrant Free Mobile in 2012.

A large number of MVNOs (49) in France have introduced packages over the years and stimulated competition in the market. MVNOs have introduced unlimited text and data offers, prepaid offers inclusive of both SIM and handset, and flat-rate roaming offers. However, these offers are now the norm in the country, and incumbent MNOs have developed them further, particularly with data packages, taking away the competitive edge that MVNOs once had. According to our consumer survey conducted in June 2015, 65% of consumers in France subscribed to an unlimited voice offer, and 85% subscribed to an unlimited text offer.

This shows the limits of an MVNO model primarily focused on discounted prepaid-only tariffs – especially in developed markets, where voice revenues are in decline and effective price per minute has reached the rock-bottom limit (see Figure 12).
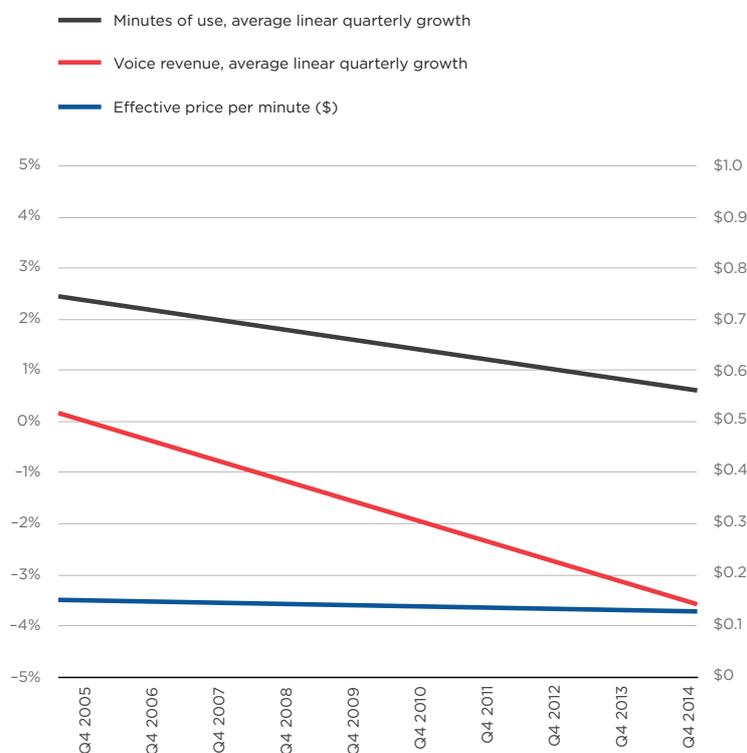

Figure 12: Developed region, MOU and voice revenue average linear growth and EPPM (selected operators)
Source: GSMA Intelligence

France's total MVNO connections base increased from 6% to 13% of residential connections in the country between 2009 and 2012 according to ARCEP's latest figures, while GSMA Intelligence estimates that the MVNO share has consistently declined since mid-2013.

ARCEP noted in its last report that despite the pioneering role MVNOs played in the prepaid segment, MVNO prepaid growth is now in decline and it is difficult for MVNOs to retain prepaid customers. The regulator explains that this phenomenon is due to the migration of users from prepaid to contracts, a trend that accelerated when incumbents launched their low-cost sub-brands (Orange's Sosh, Bouygues Telecom's B&YOU and SFR's Red) and when new entrant Free Mobile launched.

Orange France provides an example of this trend (see Figure 13). The operator reported a decline of 871,000 MVNO connections between Q1 2013 and Q1 2015, compared to an increase of 1.5 million for its sub-brand (Sosh) over the same period. This resulted in a connection base for its sub-brand almost three times greater than its MVNO base.
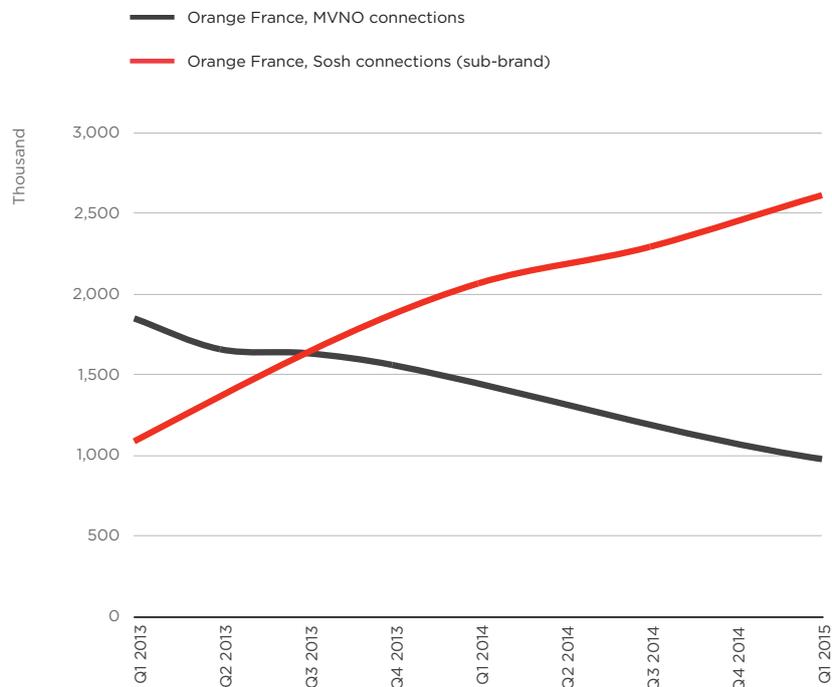

Figure 13: Orange France: MVNO versus Sosh (sub-brand) connections
Source: GSMA Intelligence

The same applies to MVNOs focused primarily on discounted contract-only offers and those that offer a convergence bundle (telecom MVNOs). With the rapid adoption of convergence services from incumbent players in France, these MVNOs are facing similar retention challenges in the contract segment to those in the prepaid segment. All four MNOs in France have solid portfolios of fixed assets, offering competitive multi-play offers to consumers, including discounted tariffs for additional lines, or shared data plans, removing the need to seek cheaper deals for additional lines from virtual players.

Convergence is gaining ground in France. Our survey shows that 61% of consumers subscribed to a single provider for their mobile, internet, fixed line and pay-TV services within their household, while 31% subscribed to two providers and the remainder have more than two providers.

Consolidation is also likely to reshape the market, with Bouygues Telecom seeking a deal with other incumbent operators in France. Post-consolidation, MVNOs might have to reconsider their roles if the new parent MNO reshapes its strategy, services and tariffs.

Alternative business models could sustain future MVNO growth

Future MVNO growth will be determined by a number of factors:

- market structure
- regulatory environment in place to support MVNO growth
- level of support from parent MNOs
- type of agreement (co-branding, light MVNO, full MVNO)
- type of business model introduced.

Here we analyse the factors related to business models. The players that will survive are those that:

- adapt their business models and propositions to the ongoing and upcoming market dynamics
- leverage innovation
- focus on niche segments.

The two categories of MVNO that we identified as likely to be challenged by ongoing and upcoming industry dynamics have business models that do not focus on niche consumer segments, nor on leveraging innovation through new technology, billing solutions or tariffs.
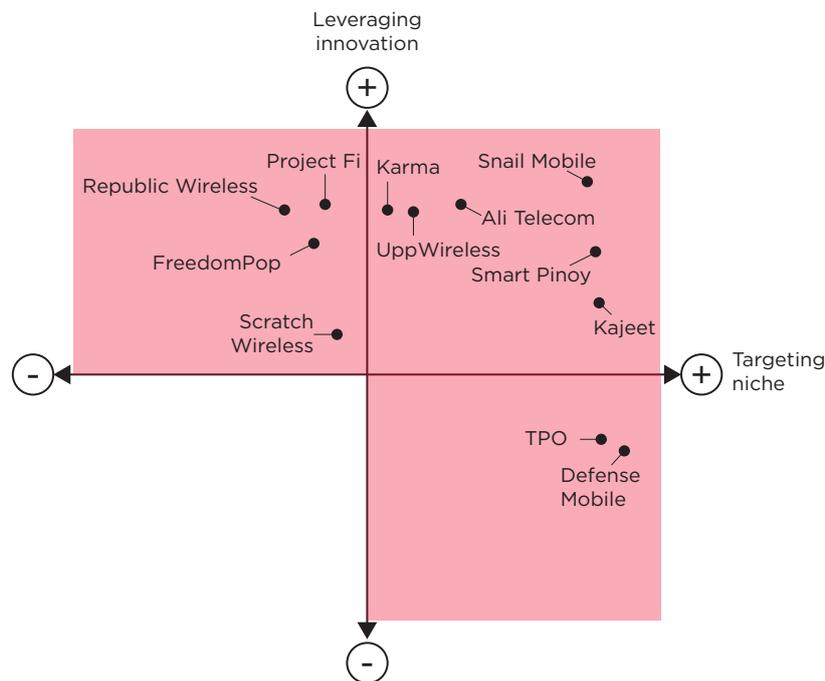

Figure 14: MVNO competitive positioning against key differentiating factors

Note: Positioning on both axes is approximate and indicative only

Source: GSMA Intelligence

A number of MVNOs have launched business models that entirely focus on innovative solutions and tariffs in order to differentiate and attract specific, often underserved, consumer groups.

The MVNO market is often seen as a testbed for innovative business models – some that will fail and others that will succeed. In the UK for instance, most MVNOs that introduced ad-funded models have closed down or are struggling to sustain growth (e.g. Samba Mobile, Ovivo and Blyk). Similarly, a number of well-known brands have tried to launch as MVNOs before rapidly shutting down their operations (e.g. Disney, ESPN, Best Buy, Amp'd Mobile launched by MTV/Universal, Time Warner, Comcast and Rover).

Focus on mobile broadband connectivity

A number of US players have launched alternative business models that complement or supplement MNO models through Wi-Fi networks. With Sprint's Republic Wireless, consumers use Wi-Fi as a primary network for calls, texts and data, falling back on Sprint's network when outside of Wi-Fi coverage. This 'upside-down' Wi-Fi offload model helps Sprint to manage traffic and network capacity (a hot topic in saturated developed markets).

Similarly, FreedomPop offers a "Wi-Fi-only" plan (including voice over IP), while Scratch Wireless offers unlimited voice/text and data 'passes' and reverts to Wi-Fi connectivity whenever possible. Both MVNOs run on Sprint's network.

Meanwhile, Karma recently launched its latest Karma Go LTE hotspot, allowing users to take Wi-Fi connectivity with them on the move, with a choice of three prepaid data offers: 1GB ($14), 5GB ($59) or 10GB ($99). The hotspot cannot be password-protected and is public by default; the MVNO's proposition is based on sharing your internet bandwidth. Karma Go allows up to eight users to connect to the hotspot at a time, and the owner receives 100MB of data as a reward each time a new user connects to the hotspot.

Lastly, Google entered the US MVNO market in April 2015, announcing its Project Fi model, which uses Wi-Fi connectivity. As well as the ability to use several access points, one of the key features of the service is that it charges customers only for the data they use. If a customer pays for 2GB in a given month and only uses half of it, they will receive half of their money back. (Some operators in the US already offer rollover data tariffs, but these have often been subject to limitations.) Customers will be able to use their mobile number to communicate through their tablets and PCs as well as their phones. Google also plans to attract users with competitive roaming arrangements, including a basic data service in more than 120 countries.

Focus on digital content

Spanish-based Tuenti – often referred to as the 'Spanish Facebook' – offers a social networking service. It was acquired by Telefónica in 2014 and is a sub-brand of the MNO. Tuenti is present in a number of Latin American countries and recently launched in Ecuador. It offers a set of tiered prepaid data packages with unlimited WhatsApp and Facebook usage, as well as a VoIP app.

Meanwhile, UppWireless is a virtual operation launched by UppTalk – a mobile messaging and voice app – on T-Mobile's network in the US. UppWireless offers unlimited voice and texts, along with Wi-Fi-only or two-tiered data plans.

In China, Snail Mobile was part of the country's first wave of MVNO launches that saw 19 players enter the market in mid-2014. Snail Mobile is part of Snail, a Chinese online game provider. The company based its MVNO strategy on the 'free' model that saw it succeed in the gaming space. It launched two types of tariff: Mian Store offers unlimited data to download games from its app store, while Mian Card provides unlimited voice packages and data allowances ranging from 50 MB to 300 MB per month for a one-off payment. The company offers a Mian Cards loyalty programme. Snail Mobile also launched a dedicated gaming device, Mian Phone, following the acquisition of iReadyGo, a mobile gaming device manufacturer.

Focus on digital commerce and money services

In China, e-commerce giant Alibaba launched its MVNO service – Ali Telecom – in 2014, targeting users registered on its Taobao and Tmall e-commerce platforms. Ali Telecom offers users data credits when they purchase goods on either platform. Users can share this data allowance with friends or relatives. In addition, the service offers an app that allows up to four virtual phone numbers per phone (numbers without a SIM). Its Tao-WiFi app also allows users with a Taobao account to connect to the Wi-Fi hotspots of all three incumbents (up to 60 million hotspots across China), with the first hour free and a top-up service available based on Taobao coins (its virtual currency).

PLDT partnered with Hong Kong's CSL to launch its MVNO service a decade ago. Smart Pinoy serves more than 70,000 Filipinos living in Hong Kong. Beyond voice, the MVNO offers services including mobile remittance, money transfer and cross-border air-time loading.

In Germany, Smartmobil – one of the first German MVNOs – launched its dedicated Facebook store to sell bundled packages and engage with end users. It offers a loyalty program that rewards customers who recommend the service to their friends, providing them with Facebook virtual currency credits.

In the US, MyTime Wireless launched its mobile wallet and money transfer services as key propositions beyond the traditional voice and data services it offers, including international long-distance calls and Mi-Fi plans.

Focus on communities

Launched in 2007, Kajeet develops services that address the needs of children, parents and schools. Through its services, parents can receive alerts when children arrive at school (tracked via a GPS app), keep children away from inappropriate internet content and manage mobile usage.

In the UK, The People's Operator (TPO) launched in 2012 with a charity-based model, defining itself as an ethical mobile provider. TPO gives 25% of its profits to charity, and allows customers to give 10% of their monthly phone spend to a cause of their own choice. The MVNO also launched its own social network, and has expanded into the US.

In the US, Defense Mobile shows how far MVNOs can go in addressing the needs of very specific groups. It offers services exclusively for veterans, current military personnel and their families. Ten percent of the MVNO's net profit is redistributed to military families in need.

Focus on IoT solutions

In the Internet of Things and adjacent industries space, a number of MVNOs are expected to introduce specific services. Seniors Wireless is a good example of this trend. The MVNO addresses the needs of the elderly with teleMED Assist. The service allows customers to use any landline, mobile phone, or wireless service to speak to – or engage in a videoconference with – a qualified medical practitioner. The doctors can reportedly evaluate, refer and prescribe on the spot.

Glossary

MVNO

A mobile virtual network operator (MVNO) provides a cellular service through an agreement with a mobile network operator (MNO) to purchase wholesale network access. It does not have its own licensed spectrum or own all of the infrastructure required to provide a cellular service.

Sub-brand

A sub-brand is a brand wholly owned and operated by a parent MNO, whose network it uses. It is frequently regarded as an MVNO by consumers, as it is marketed independently from the parent MNO. Brands may be used by MNOs through partnerships with well-known brand owners from other industries such as media/entertainment and retail.

Co-branding MVNO

Under this structure, a company with a well-established brand and the MNO form a partnership based on a revenue-share model. For example, M6 Mobile in France launched in 2005 through a partnership between Orange France and TV channel M6.

Light MVNO

Under this structure, the MVNO distributes its own SIM cards and resells minutes of use purchased from a host MNO. This model is used in the majority of MVNO launches.

Full MVNO

Under this structure, MVNOs have access to the network-switching infrastructure and can set their own termination rates (e.g. Lycamobile's agreement with Bouygues Telecom in France in 2011).

International MVNO

A geographic classification for MVNOs that provide global connectivity to roamers or specialised global M2M services. International reach is achieved through multiple MVNO agreements and roaming hubs.

Developed and developing classification

GSMA Intelligence classifies developing countries and economies as defined by the World Bank. Economies are divided according to 2011 gross national income (GNI) per capita into low income ($1,025 or less), lower and upper middle income ($1,026–4,035 and $4,036–12,475) and high income ($12,476 and above). These categories were defined in July 2012.

Countries that fall within the low- and middle-income brackets are then classed as developing markets. Note that this definition is subject to annual change as the income brackets and GNI per capita of each market are reviewed and (if necessary) revised by the World Bank at the end of June. Data is released 12 months behind the current calendar year.

About GSMA Intelligence

GSMA Intelligence is the definitive source of mobile operator data, analysis and forecasts, delivering the most accurate and complete set of industry metrics available.

Relied on by a customer base of over 800 of the world's leading mobile operators, device vendors, equipment manufacturers and financial and consultancy firms, the data set is the most scrutinised in the industry.

With over 26 million individual data points (updated daily), the service provides coverage of the performance of all 1,400+ operators and 1,200+ MVNOs across 4,400+ networks, 65 groups and 237 countries worldwide.

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Joss manages the GSMA Intelligence analyst team and is responsible for the quality and planning of the research. He joined as a senior analyst, looking after mobile network technology migration and overall research and forecast accuracy. Before GSMA Intelligence, Joss worked at Ovum Ltd and for Motorola's Mobile Devices Division in the UK. He joined Motorola as a product analyst before managing its market intelligence activities in Europe. He holds an MA in International Business from Portsmouth Business School and a certificate in International Political Theory from the University of London.

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