Content and applications:

the big emerging appetite for data





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As consumers continue to seek out "smart experiences" in the most affordable and immediate ways, the biggest opportunities in content and applications in emerging markets over the next few years will come from value-added services (VAS) such as mobile money, with gaming, music and video playing an increasingly key role.

This increase in demand will propel the mobile content market to revenues of \$30bn by 2017, almost double its current size. To realise these opportunities, TMT players must orientate their strategies to take advantage of a mobile-led culture in emerging markets.

Introduction

Digital content in emerging markets has long been the near exclusive preserve of the wealthiest consumers who have access to the same smart devices, broadband connections, purchasing power and payment methods used by consumers in mature markets to enjoy digital content. The growth of mobile data access combined with the decreasing cost of larger-screen smart devices in emerging markets is driving mass access to content and applications for billions of new users. As growth in the number of mobile users decelerates, mobile operators are looking beyond basic VAS such as ringtones and logos, to increasing investment in content and applications to drive mobile data revenue. New 3G and LTE networks and the rising ownership of smart devices are together boosting data revenues in the form of increased usage of mobile broadband. The shift to mobile broadband is coming largely at the expense of VAS, as consumers with smart devices are increasingly finding ways to bypass the traditional operator-led content model.

The industry must focus more closely on the affordability of smartphones and broadband data plans, the growing fragmentation of smartphone platforms, and the fine-tuning of monetisation models. Addressing these challenges will require customer-led innovation, as well as strong and equitable partnerships with a mix of local and global content partners.

Monetising and paying for content remains a key challenge for the industry, which is fuelling the growth of ad-sponsored and freemium business models. While operator billing is an expensive but effective option for reaching "unbanked" users, the growth of mobile payment services is changing not only the way users pay for content, but the broader mobile financial services landscape.

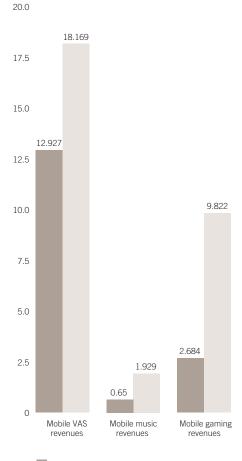
Market size and growth

Mobile will represent 49% of all global Internet traffic by 2017 and, with the vast majority of emerging market broadband connections over wireless technology, mobile Internet traffic is increasing rapidly in emerging markets, providing an opportunity for content creators to access new consumers like never before.

In China, search giant Baidu, microblogging player Sina Weibo and online video player Youku Tudou, are all reporting that between 15% and 20% of their traffic comes from mobile devices. In India, online travel booking company Cleartrip reports that nearly 28% of its traffic is already coming from mobile, much of it over its Android app. More interestingly, mobile also accounts for nearly 8% of its transactions.

The adoption of cloud-accelerated (proxy) browsers is opening mobile browsers to the mass market segment, with more devices featuring browsers at increasingly more affordable prices. These lower prices will contribute to persuading the long tail of basic phone users to switch to smart phones and to access the Internet via their mobiles. The potential market is enormous when one measures rising browser usage data from major vendors. Opera Mini claims over 200 million users globally; UC Browser over 400 million; and Nokia announced it has over 80 million users of its Xpress Browser.

In the short term, the greatest traction comes from messaging apps, particularly in the social category. This is because the future of messaging will be centred on IP-based messaging and social messaging apps. This is particularly true in Asia, where messaging apps are very popular. The "stickiness" of social messaging services for customers makes them the ideal platform from which to launch complementary, more monetisable services. For example, ► Figure 2: Content and applications in emerging markets: TMT market growth forecast



Content and app revenues in 2012 (\$bn) Forecast content and app revenues in 2017 (\$bn) Country focus

India

Late starter rising fast

India is a great example of an emerging market in terms of its opportunities for revenues from mobile content and apps. Much smaller than China, it has also lagged behind Brazil in its overall pace of development, particularly with respect to the deployment of mobile broadband. This slow adoption of mobile broadband has been particularly striking given the negligible fixed Internet penetration in the country. However, a number of factors are converging at the right time to position India as the next big growth story in content and apps.

While basic mobile connection growth is slowing down, many users are adding mobile broadband plans to their voice and SMS services. As a result, mobile broadband users are projected to grow rapidly, rising from around 60 million connections today to more than 350 million by 2017. In parallel, there is rapid growth in smartphone shipments, which are projected to rise rapidly from barely 20 million in 2012 to more than 160 million in 2016. This rapid pace of smartphone adoption will swell the installed base to nearly 500 million devices in the country, representing a tremendous addressable market for the consumption of digital content and apps over mobile devices. The single biggest driver of this growth is the availability of the affordable, featurerich Android smartphones that are being imported from China.

Among all the content categories in India, the most popular are messaging apps and mobile video. Like most other Asian countries, messaging, especially social messaging, is very popular in India. There is no single dominant player in India and usage is currently spread over several apps, including home grown apps from the likes of



GupShup, Hike and Nimbuzz. Mobile video is also gaining in popularity, with services from the likes of VuClip gaining significant traction. Mobile operators have also developed their own proprietary or white label services, and are marketing these services heavily. For example, Bharti Airtel has launched a new One Rupee plan for mobile videos. Priced at 1 Indian Rupee (around 2 US cents), prepaid users can dial a short code to gain access to Airtel's portal, from which they can choose their video clips. Alternatively, they can go straight to the page from a mobile browser.

India has an overwhelming proportion of prepaid users, accounting for nearly 97% of the total base of connections, making it difficult for operators to profitably market mobile data. However, the launch of 3G networks and the impending launch of LTE are providing a much-needed bandwidth boost to new owners of smartphones. Today, mobile operators are offering very attractive data packages to their prepaid user base and are gaining increasing traction as they replicate the strategies that were successful in the voice market. Until recently, a lack of adequate payment mechanisms was also holding back market development. Now, the availability of app stores like the Nokia Store, with its extensive operator billing arrangements, has made payment for content and apps much easier for the mass market. This reduced friction is manifesting in increased downloads, even from lower income segments. For the small but high-spending postpaid user base in India, app stores like iTunes and Google Play have all rolled out local versions for the Indian market allowing these subscribers to pay for content and apps with their credit and/or debit cards.



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\$30bn Content and apps

revenues from emerging markets will almost double to \$30bn by 2017.



Table 2:

Risk forecast for foreign investors - Content and applications: top five emerging markets

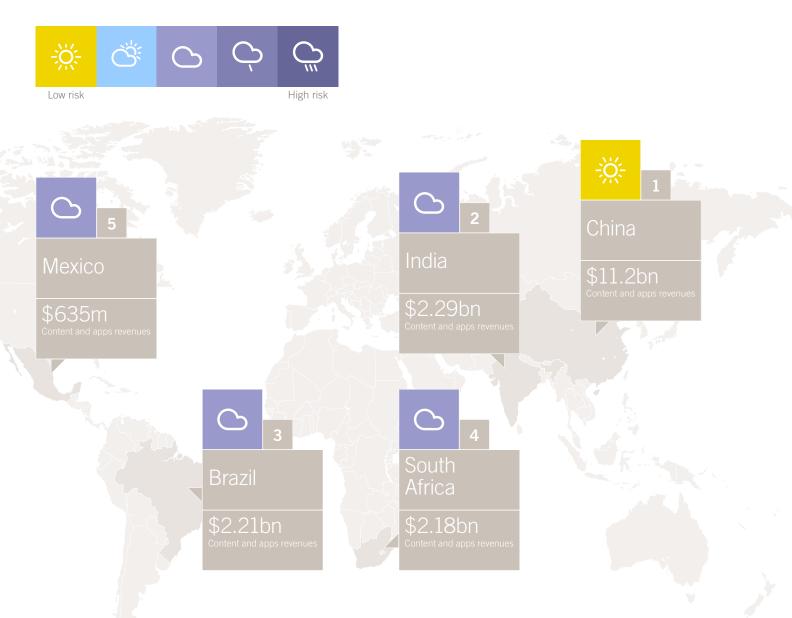
Market	Key risks	Risk outline	Risk forecast
China	Piracy Privacy Regulation	Piracy: Continues to be a major issue in China. However, the government is taking steps to combat piracy under its commitments to the WTO. Privacy: Service providers and content publishers required to comply with the government's censorship and monitoring requirements. Regulation: Potentially significant changes in relation to the licensing of MVNOs and the restrictions on foreign investment.	- <u>ö</u> :-
			Low risk
India	Regulation Piracy Privacy	Regulation: There has been significant turmoil on the regulatory front in the wake of the 2G licensing scandal, the delay to the New Telecom Policy (NTP) and uncertainty over foreign investment rules. Piracy: Piracy of music and video content is common, but less so in gaming. Privacy: Government surveillance is an increasing concern, with requirements to establish local offices and servers.	C Medium risk
Brazil	Piracy Privacy	Piracy: Despite increasing availability of legitimate content services, piracy is a big issue. Copyright laws in Brazil are not currently strong enough to curb this problem. Privacy: There is no specific law governing digital privacy rights in Brazil, but there are stringent data rights for employees which can limit enterprise services.	C Medium risk
South Africa	Piracy Privacy	Piracy: An underdeveloped retail sector contributes to higher prices, exacerbating the sales of pirated content – enforcement is low. Privacy: The Protection of Personal Information Bill will import an EU-style privacy law which may prove difficult to implement and restrict certain services.	Co Medium risk
Mexico	Regulation Piracy	Regulation: Recent high-profile money laundering cases have damaged the credibility of the regulatory regime and may lead to more assertive regulation. Piracy: Piracy is prevalent in Mexico and enforcement has been low. However, the government has upped its penalties and fines.	C Medium risk

app developer LINE generated approximately \$30m in 2012 from the sale of premium emoticons alone. As services like LINE expand to emerging markets, there are numerous opportunities to monetise social messaging.

Mobile gaming is growing in nearly every emerging market, notably in Indonesia, Brazil, China and Nigeria. These are relatively high-growth markets both in terms of data and device penetration. However, they are also low-income markets, which makes the free-to-play (F2P) gaming model (games are free, and revenue is generated by the purchase of virtual goods) key to the development of mobile gaming. F2P and the in-game purchase of virtual goods and services is fast becoming the business model of choice for digital game platforms. The F2P model is lowering barriers for entry for new users and increasing the user base in the region.

Mobile music will grow rapidly both in terms of digital downloads and retail revenue in most emerging markets. China, in particular, is ahead of the pack, with revenue from digital music reaching \$704m in 2017, with more than half of that coming from mobile downloads. China will better leverage its already large and growing broadband subscriber base. India will perform well with Content and applications: top five emerging markets

Source: Ovum/Linklaters. All figures projected for 2017.

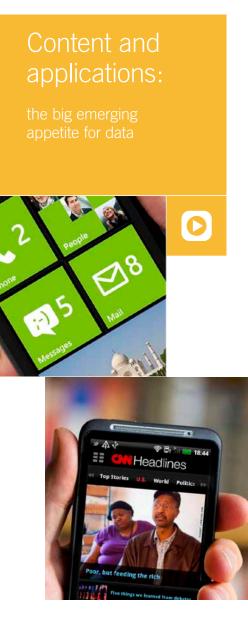


new mobile music platforms and services, but the overall market for digital music will not be as big as China. A lot of this has to do with the lack of market control in terms of piracy. India is also highly mobile-centric, which means consumers will lean towards single track downloads or streaming music, thereby putting it on a lower growth trajectory than China. India's prospects for mobile music can be attributed to growing mobile penetration, easy availability of song downloads via mobile, and a large amount of locally available content.

Mobile video and TV, currently restricted to a small proportion of users, will evolve rapidly towards video streaming. Today, most emerging markets are simply not ready for mobile TV, or even mobile video. This is due to gaps in the infrastructure in terms of network capacity, device capability and a lack of consumer understanding of the services available. The current market is based on video clips that can be downloaded through content providers and MMS. Regional movie clips, songs, and sporting video clips are the most popular types of video content consumed.

Device manufacturers such as Nokia and RIM are already fuelling the video market by offering users capability to upload and share content on social networks and messenger groups as soon as it has been captured. Social networks in particular are encouraging the consumption of video clips. The growth in the usage of YouTube globally and more regionally popular platforms has fuelled the movement towards a larger audience consuming video over mobile devices. All of this is gradually encouraging the uptake of mobile TV and video services in emerging markets.

China, India, Brazil, South Africa and Mexico are the countries where mobile content and applications are most likely to see the largest growth in emerging markets. However, these markets, and in particular China and Mexico, pose considerable piracy risks, as well as being subject to the constraints of extensive privacy regulation. ■



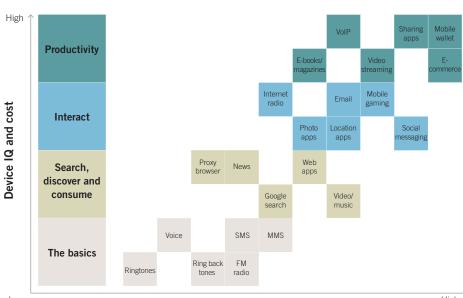
Go-to-market strategies:

towards a smarter future Service and content providers will focus their strategies on effective models to facilitate consumers' progression from basic communications services, such as voice and SMS, all the way through to smart experiences on the mobile Internet, as outlined in Figure 3. Consumers in emerging markets care even less than their mature-market peers about the underlying technology, and are focused on the experiences and benefits of different services. While many consumers would undoubtedly like to experiment and browse casually, they are currently more inclined to seek out customised "app-like" experiences on their mobiles due to time and disposable income constraints.

Our research has identified six key go-tomarket strategies – with the first three strategies based on the need for mobile network operators to deliver affordability and work in tandem with content partners. The next three are based on the need for content providers to develop more innovative business models.

Mobile network operators need to broaden affordability and partnerships Mobile operators faced with the strategic imperative to monetise large investments in data networks need to improve the affordability and attractiveness of their data services in a bid to seed the market and spur adoption. The three key strategies to achieve this are:





Low

Utility of the device







1. Simplify data access pricing:

Consumers need simplicity and look for unlimited, time-based and content-based packages. This greatly reduces entry barriers such as affordability and "bill shock", but the extra complexity of plans may turn off potential mobile Internet users.

2. Embrace the prepaid user base:

Operators must also embrace the prepaid segment for mobile broadband, shifting to high-volume, low-margin data plans that will drive mobile Internet usage at the mass market level. Sachet pricing, similar to that adopted for voice services, is now critical for data. This process has already begun. Airtel in India is offering shared data plans and mobile videos for 1 Indian Rupee and Smart in the Philippines is experimenting with "unlimited" plans that allow free surfing but have a cap (15 MB) on daily downloads.

3. Partner with over the top (OTT) players:

Telcos looking to respond to the onslaught of OTT services should increasingly look to partner with OTT service providers. Such partnerships are contractually based, with some mutual marketing and/or commercial benefit to the parties involved. There is increasing evidence of such win-win partnerships being struck. For example. Reliance Communications in India is partnering with WhatsApp and Facebook for "unlimited" packages. Operators are also working with major OTT and content players to offer zero-rate plans, which typically offer free access to content with a minimalistic user experience. More than the corporate social responsibility benefits, these zero-rate plans are essentially a downstream investment in that the people who get to access digital content early are more likely to pay when they can afford it.

Content providers must develop more innovative monetisation models While business models and success rates will vary across markets and content categories, the following three universal strategies can be adopted to drive growth for content providers:

4. Go freemium: The stark reality of the mobile Internet is that encouraging people to pay for content and services is difficult. This has led to a growing dominance of the "freemium" model, where ad-supported "free" services are offered to drive adoption and traffic, while in-app purchases for more advanced services drive additional revenue. Ad-supported services are encouraging new consumers to download apps and content. The best example of this is the Google Play app store for Android. Rising sales of smartphones and app downloads mask the fact that most of these downloads are ad-supported and "free".

5. Focus resources on the app stores with

highest ROI: The mobile Internet offers a wealth of distribution mechanisms, primarily over numerous app stores and, to a lesser extent, browsers. Too many options have arisen due to the lack of a standardised framework for the mobile Internet. The result is increasing fragmentation among app stores, especially for the Android platform which is driving most smartphone growth. For developers and content providers, the high degree of fragmentation means that they must focus limited resources on those app stores that generate the best return on investment.

6. Drive monetisation by supporting operator billing: While app stores and browsers will remain the fastest growing distribution mechanisms for content and app developers, the dominant prepaid user base is also typically inversely correlated with credit and debit card penetration in emerging markets. In the absence of alternative payment mechanisms, cash is still king. While some markets are having success with or experimenting with mobile money, operator billing is a very effective and high conversion method of driving monetisation. Operator billing typically involves a high commission paid to the telco (up to 15-25% in some cases); however, this high commission can be worth it, as the addressable market is greatly increased.