

While convergence is not new, the way consumers interact with technology is constantly changing, especially in China. Today's technology and the plethora of devices it enables are allowing consumers to get what they want, when they want it. As Chinese consumers rush to these new gadgets, businesses are facing significant challenges adapting - those that are too slow risk losing their market share. Evidence points to a greater integration of devices within the consumer lifestyle and a rapid evolution of business models for those that enable them. Likewise, regulators will also need to evolve to meet the changing demands of consumers to ensure the rules promote privacy while still providing the flexibility for companies to innovate.

THE ENABLING LANDLINE

For consumers globally, utilisation of the landline is now seen as a means to new broadband based services to support wireless telephone and Voice over Internet Protocol (VoIP) rather than traditional reasons, such as

> reliability and security.

The landline is now seen as a means to new broadband based services. of landline

China's two fixed-line operators have been impacted by the decline in subscriptions services.

For China Telecom, fixed-line users fell by about 430,000 in April 2012 which was a contributing driver of a 1.1% stock loss. Revenue for traditional fixed-line voice service decreased by 20.4% in 2011, now accounting for 20.3% of China Telecom's operating revenue.

As a result of the decrease in the usage and the downward adjustments in tariffs of the fixed-line business for China Unicom, revenue from local telephone business was RMB 34 billion, down by 15.2% compared to last year. China Unicom is attempting to retain fixed-line value through an integrated business model of local telephone voice packages and valuedadded services.

Service revenue from fixed-line business such as broadband is currently offsetting the decline in local telephone business. Telcos are actively promoting fixed-line broadband speed enhancement and packages to include landline services.

"We have seen exponential growth of mobile technologies in Asia," says Egidio Zarrella, Partner, Clients and Innovation Practice, KPMG China. "Mobility is a key characteristic of the 'new' Asian consumer. The Chinese consumer has 'leapfrogged' to the smartphone technologies. Lack of widespread landline infrastructure has seen Asia jump ahead of its Western counterparts."



What business models are telcos considering to retain customers?

THE DEVICE DIVIDE

As mobile technologies continue to improve, we will likely see the personal computer (PC) become limited to business functions that run

- The increase of Chinese 3G users to 152 million and the plan to introduce 4G maturity of the mobile network.
- The rapid introduction of the tablet. In 2011, sales volume of tablets

increased nearly 10 times to 4,925,000 with sales revenue of RMB 18.98 billion. With a low price strategy, domestic brands rose sharply.

- The increasing use of mobile internet via smartphones. Mobile internet users in China reached 431 million by December 2011 and the revenue was RMB 86.22 billion.

China has overtaken the U.S. as the largest market for new smartphone activations in 2011 with sales mainly in urban, more affluent areas.

Mobile internet has seen increasing adoption rates as consumers are keen to benefit from the convenience that comes with mobile devices. Mobile internet revenue streams in China are driven primarily by mobile applications (42.2%) and traffic charges (41.8%). Mobile shopping (12.5%) and mobile advertisements (3.5%) come in as the third and fourth revenue streams.

Market segments such as mobile e-commerce, mobile marketing and mobile games developed rapidly:

- Mobile e-commerce is now the largest segment of the mobile internet industry, exceeding mobile value added services by 0.05% to 42%.
- Revenues from mobile marketing increased to 7.1%, following the development of mobile advertising and the growing number of mobile
- Mobile game revenue was RMB 1099 million in Q4 2011 as the number of Chinese mobile game

high functioning tasks. Driving this shift in China includes:

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users grew steadily to 162 million users. However, the compact size of the mobile device limits the ease of gaming, which may restrict the number of future users. As a result, advertisers may be hesitant in investing in this area.

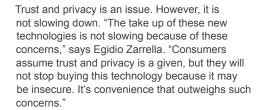
THE TRUST & PRIVACY PRIORITY

Privacy and security are becoming even more important to consumers given the rise of mobile payments and commerce, the increase of information stored in Cloud Computing and personal information provided through social media sites. For 90% of consumers globally,

Despite trust & privacy issues, the take up of new technologies has not slowed.

these concerns continue to increase. In China, 8% of internet users encountered fraud during online consumption in the first half of 2011. In addition, 121

million internet users experienced theft of account number or password in the first half of 2011, an increase of 21.07 million.



THE CLOUD TAKES SHAPE

Globally, Cloud Computing is well embedded and ever present with 65% of consumers already storing some level of personal information via Cloud technology. Security and regulatory requirements are also a key concern for consumers and organisations providing Cloud services.

The adoption of the Cloud in China is moving quickly and is predicted to grow five times the rate of IT spending to reap potential revenue of USD 800 billion over three years. According to the Asia Cloud Computing Association, this is supported by the Chinese government, which is planning to invest USD 154 billion in Cloud. This makes Cloud Computing the number one technology priority for business in Asia Pacific in 2011.

Cloud adoption in China's public sector is being driven at a local level, but with a consistent goal of promoting Cloud Computing to improve the industrial development environment.

In China, the advantages that Cloud offers to players are vast with many organisations already capitalising on the benefits. Mobile equipment manufacturers are offering Cloud services through the development of Cloud concept phones: Yulong, K-Touch and Huawei already operate in this space. Search engines such as Baidu launched a Cloud service platform based on mobile Internet. Telcos are also developing their own Cloud

service products. Additionally, hardware providers including Huawei and ZTE are providing a range of technology supported by Cloud to lower costs for both buyers and sellers. Internet and software companies such as Alibaba, Sina, Baidu and Kingdee are providing Cloud based SaaS solutions.

Many of these companies are still experimenting with different business models in order to increase revenue sources. This includes a focus on partnering to increase the diversity of services and expanding to international markets as done by Huawei and ZTE.



How do you integrate Cloud Computing into your organisations growth strategy?



The Ministry of Industry and Information Technology in China is planning to introduce a new regulation, which requires much stronger protection for the personal data they collect from users in China, but there is still a long way to go. There appears to be a significant trust gap between consumers and organisations globally. Organisations should promote privacy and security every bit as much as they do price and network quality. Provincial governments have passed ordinances setting out more detailed rules, but the absence of a consistent standard has resulted in recent security and privacy breaches. Organisations such as CSDN (a site for programmers), Tianya and Sina (social networking sites) and the Guangdong Provincial Public Security Department have been highlighted in recent headlines for weak privacy controls.

THE REALITY OF SOCIAL MEDIA

86% of consumers surveyed globally are actively engaged in social media and more than a quarter dedicate more than two hours per day to social networking activities.

China is actively engaged with social media networks; however, the social media network in China remains vastly different from those in the western world with strong government restrictions on foreign web services and a myriad of censorship laws.

Despite these stringent controls, consumers are still active participants throughout China. As at December 2011, there were 244 million social network site users and approximately 250 million microblog users in China. The number of microblog users increased by 296% in 2011.

With traffic quickly migrating from personal computers to mobile devices, Chinese internet companies are focusing on the opportunities of social media in the mobile space. China's largest internet conglomerate, Tencent, launched a new mobile chat service last year called Weixin. Users of this free iPhone App doubled to more than 100 million since its launch last year.

In order for social media to excel in China, greater diversification in revenue streams is required. Sina will promote microblogging payment system, credit system, and data mining system structures to further improve the commercialisation of the microblogging infrastructure. Renren is focusing on growing revenue from games and mobile gaming as well as a Groupon style service, Nuomi.com, on top of the social network.



What opportunities exist for businesses to align with social media networks to create or enhance new revenue streams?

The Future of Commerce:

ADVERTISERS

Two thirds of consumers globally are willing to have their online usage tracked by advertisers, providing advertisers with the opportunity to undergo a fundamental shift from 'blast' advertising campaigns to more personalised, value added promotions.

Advertising in China has moved from an unsaturated market, where television was the predominant media channel for commercial advertising, to a focus on tailored online advertising to meet the specific needs of the target market.

Although TV is still the key advertising channel used, online advertising has grown rapidly and has exceeded the size of newspaper advertising (RMB 45.36 billion) and not far off TV advertising (RMB 72.44 billion). China's online advertising growth rate was 56.2% in 2011. Baidu captured 30.9% of online ads in Q1 2012, followed by



Questions you should be asking

How will 4G technologies affect the design and functionality of future devices?

What strategies are advertisers using to capitalise on the 'multi-screen viewing' market?

What regions will online shopping players focus on in future given the slow growth rate of internet in some rural locations?

What strategies are retailers using to gain a share in the online shopping experience?

Are there key regulations that will prevent content providers from certain revenue models? Or working in partnership with certain parties?

How are television companies working with social media to increase demand for television programmes?

What is the future of stream quality in China and what infrastructure is required to support this?

Alibaba with 17.9%. Baidu is growing most rapidly followed by Taobao and Google HK.

Mobile advertising revenues doubled in China to RMB 2.42 billion as we see consumers increasingly preferring to use the convenience of mobile internet. Advertisers in China are now focusing on directing specific advertising to the consumer on the spot. One way of executing this is to track consumers' whereabouts in real time by using the 'check in' function on a mobile smartphone. Although mobile ads and applications are developing, they remain limited due to the size of a mobile screen

The commercialisation of social networks and the development of mobile advertising have resulted in dramatic changes for internet advertisers. Consumers are now utilising cross platforms and multi-screen viewing. This means whilst watching

Advertising channels in China in 2011:

- TV: 72.4% (RMB 72.44 billion)
- · Newspaper ads: 45.3% (RMB 45.36 billion)
- Internet ads: 51.2% (RMB 51.19 billion growing 57.3%)
- · Radio ads: 9.6%
- Magazine ads: 7.9%

Source: iResearch

a television show, they are actively engaging with social media through their smartphone or tablet. Advertisers need to align themselves with social media and television to ensure a consistent message is conveyed through the appropriate platform.

RETAILERS

Consumers globally now prefer to purchase items online rather than at a physical outlet with more than 65% of consumers opting to purchase flights, holidays, CDs, DVDs, books and video games online.

China is reflective of an increase in an online purchasing global trend and by the end of June

Consumers are more likely to purchase electronics, books and flights online than in a store. 2011, online shopping users had reached 194 million. The transaction size of China's online shopping market will surpass Japan in 2012, and exceed the U.S.by 2013, becoming the world's largest

online trading market. Additionally, 'group buying' has experienced rapid annual growth of 244% to 64.65 million users by December 2011.

Guangdong, Zhejiang and Jiangsu Provinces were the top contributors to online shopping in 2011 with over 225 million orders each in 2011 (Guandong surpassed 300 million). Interestingly, Hunan is the fourth largest online shopping province, but has less than 30% internet penetration rate. Henan (6th largest online shopping) and Sichuan (7th largest online shopping) also have less than 30% internet penetration rate.

Furthermore, 64% of Chinese online consumers said they are willing to pay extra for products and services from socially responsible companies. Retailers and advertisers should work to identify these consumers in order for brands to engage in social impact efforts that appeal to the right consumers.

The main obstacles impeding the online shopping market in China is declining consumer confidence due to the increasing fraud and security problems.

CONTENT PROVIDERS

Building a strong and sustainable revenue stream has been a challenge for content providers globally. The driving cause of this is the fact that consumers are largely unwilling to pay for content – unless it is better quality. Additionally, revenue streams are limited with content providers primarily utilising an advertising business model to fund their operating expenses and content broadcasting and licensing.

One way that Baidu, China's largest web service company, is addressing the issue of consumers unwilling to pay for content, is by focusing on providing the highest quality content through the internet to increase viewership. Baidu established an independent company to provide licensed online videos. "The new company works closely

with content providers to provide copyrighted premium video content including movies, TV series, sporting events, animation and other varied content to internet users through an advertising supported model," says Mr Yu Gong, CEO of the new company.

To gain further content market share in China, Baidu, Sohu and the biggest video content provider in China, Tencent, formed an alliance to collaborate on content licensing and broadcasts. The partnership will help restore 'rational pricing' for video content.

A challenge for content providers in China is the inability to provide high quality data through mobile internet due to the lack of mobile internet users on the 3G network (currently 152 million). Most consumers are still on the 2G network, which has many limitations around the quality of online viewing data and applications.

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How can content providers increase and maintain revenue when consumers are largely unwilling to pay for content?

MOBILE OPERATORS

Globally, the most important factors for consumers when selecting a mobile operator is the quality of the operators' coverage, the level of customer service, and price. Although unique content may differentiate the mobile operator's service, it will not drive customer acquisition the same way price will.

At end of March 2012, the Chinese mobile phone market reached 1 billion subscribers and the number of 3G mobile phone users rose to reach 152 million. The proportion of mobile phone internet users covered 69.3% of total internet users.

China's mobile telecommunications market is gradually migrating from 2G to 3G, providing many opportunities for mobile operators. The number of 3G subscribers is slowly increasing with China Mobile the market leader with over 51 million 3G users in December 2011. China Unicom's 3G subscribers increased to 40 million and China Telecom had 36 million 3G subscribers as at December 2011. The 3G business is a large driving force of revenue growth for telecom providers in China as they fully capitalise on the increase of handsets and applications.

Data traffic has significantly increased due to affordable smartphones. In 2011, China Mobile's wireless data traffic increased by 152.1% year on year and generated revenue of RMB 44.4 billion, an increase of 45%. In order to maintain network pressure, China Mobile offloads 2G data traffic to 3G and WLAN and has implemented a Four

Network Coordination Strategy to create wider coverage. China Telecom has implemented a data traffic marketing model, through strengthening sales and marketing to enhance customers



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experience and cultivating users' habit of usage to increase data revenue.

To improve profitability, telecoms are focusing on strengthening capabilities in integrated platform and internet applications, enriching data content and Coud Computing whilst also focusing on enhancing capabilities around mobile payments.

Mobile internet use:

Mobile internet is primarily being used for instant messaging, search and reading online news. Mobile games has 30% utilisation rates, while online payments, banking and shopping are only being utilised by 8.6%, 8.2% and 6.6% respectively.

Source: China Internet Network Information Centre

BANKS

Globally, there has been a significant increase in consumer confidence towards mobile banking services and the introduction of mobile payments with over 50% of consumers using mobile banking services in 2011.

166 million consumers in China utilised online banking services by the end of 2011, an increase of almost 20% from 2010. This uptake puts pressure on banks to provide more efficient and reliable online banking access. Additionally, the scale of mobile phone internet users are steadily increasing in China and by the end of December 2011, there were 356 million mobile phone internet users, up 17.5% from December 2010

Some banks in China have low penetration rates of internet banking users (approximately 22% in central and first tier cities and 28% in other regions) while others have had more success (43-48% in central and first tier cities and 54% in other regions) Foreign banks hold less than 3% penetration of internet users in all regions.

Users' attitudes to online banking across the four state banks who like, but do not use, internet banking services equates to 25%. In contrast, the percentage of consumers who do not like, but use, internet banking services across the same four banks is 20%.

The number of consumers utilising online payment facilities reached 167 million by December 2011, up 21.6%, with 30.58 million being mobile phone online payments. The increase in online shopping and growth in mobile phone internet users has driven the increased use in online payments.

With the continuous improvement of internet access conditions and the network hardware in rural areas, rural internet consumers grew consistently. However, the growth of rural consumers was low compared to the massive migration of rural population into urban areas with the acceleration of urbanisation in China.

Internet banking has been relatively successful in China but the roll-out of most mobile banking initiatives has not been that successful as people do not generally perform banking

transactions on the go. Likewise, online commerce has been growing in huge volumes compared to mobile payments – this is also largely attributed to the infrastructure that is required to be built around mobile payment solutions.

This trend will shift as the younger, more technologically savvy population ages, the proliferation of smart devices become more prevalent and the mobile payment infrastructure

establishes itself. The use of some of these services is, therefore, really about matching it to the lifestyle of the population.

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How is mobile banking driving the strategy of banks?

TELEVISION

There is a significant shift in global consumer behaviour towards alternate viewing channels. One in ten currently do not subscribe to a TV service at home, and 52% download content online for viewing later, or access shows through internet streaming services.

In China, content hungry viewers are not yet substituting one form of media for the other, but are simply adding more screens. 70% of households in Shanghai own and use three screens – TVs, PCs with internet and mobile phones. This results in live interaction over social networks with other consumers whilst engaging in a television program. This drives the need for television networks, social media and advertisers to work together to understand the most appropriate and impactful way to capture the attention of the viewer. A growing number are looking at ways to generate additional revenue streams by partnering with brands to drive content and increased viewership.

Additionally, we noted a significant shift in Chinese consumer behaviour towards alternative viewing channels. The high quality of online video content is influencing consumers to download content online for later viewing or streaming. Youku, listed on NYSE, is a leader in the internet television space in China and has a 40% share of total user time spent streaming online videos among Chinese internet users during the second quarter of 2010. There is strong consumer demand for high quality internet viewing content as evidenced by Youku's 111% increase in net revenues to RMB 270.2 million, as per their 2011 Annual Report.

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