

# Mobile Southeast Asia Report 2012

## Crossroads of Innovation



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# **Crossroads of Innovation**

*by*

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## About the ‘Mobile Southeast Asia Report 2012’

This report, the first annual Mobile Southeast Asia report produced by MobileMonday and released at the Communicasia 2012 conference, addresses the growing strength of mobile innovation practices in the region. The material is drawn from interviews with over two dozen digital media experts and organisers of the MobileMonday chapters in the six key regional markets, as well as extensive research from books, journals, news, and market reports.

The focus of the report is on the overall innovation ecosystem, which includes a range of stakeholders: industry, entrepreneurs, government, academia and civil society. The report also addresses the crucial role of innovator networks and incubators, who truly make Southeast Asia a regional and global crossroads of innovation. Sustainability of the innovation ecosystem requires the right blend of bottom up entrepreneurial energy and top-down facilitation of investment policies and infrastructure. These roles are played by global+local networks of mobile startups and professionals, such as MobileMonday.

Overall shifts in the mobile industry are tracked in areas ranging from connectivity options and apps to operator dynamics and social impacts. The report includes in-depth analysis of the emerging opportunities, challenges and recommendations for the growth of mobile innovation in Southeast Asia.

The questionnaire and analysis used in this report is based on the author’s “8 Cs” framework of digital media, ie. the components of a digital ecosystem include connectivity, content, community, capacity, culture, cooperation, commerce and capital. In other words, holistic analysis of digital ecosystems should address not just connectivity devices and operator tariffs, but also localised content and services, payment options, knowledge-sharing culture, multi-stakeholder alliances, ROI models and human resource capacity in technology and socio-economic development.

This report joins earlier annual MobileMonday reports for regions such as Africa (with South Asia lined up next), and will be useful and informative for innovators, incubators, policymakers, analysts and all those interested in the broader development processes and impacts of new media. The report also serves as a call to action and collaboration for other researchers interested in publishing regular insightful snapshots of mobile innovation dynamics in Southeast Asia. (Contact: [madan@techsparks.com](mailto:madan@techsparks.com))



## I. Research Framework

The structure and discussion in this report revolves around this author’s comparative framework called the “8 Cs” of the mobile information society (parameters beginning with the letter C): connectivity, content, community, commerce, culture, capacity, cooperation and capital. There are two ways of looking at mobiles: as an instrument, and as an industry. As an instrument, ICTs (information and communication technologies) can transform the way societies work, entertain, study, govern and live – at the individual, organisational, sector, vocational and national levels. As an industry, ICTs represent a major growing economic sector covering hardware, software, telecom/datacom and consulting services (see Table 1).

The “8 Cs” framework is used to tease apart some of the key challenges in implementing the vision of knowledge societies, such as creating technology hubs, increasing ICT diffusion and adoption in developing countries, scaling up ICT pilot projects, and ensuring financial viability and social sustainability of ICT initiatives.

**Table 1: The “8 Cs” of the Mobile Information Society**

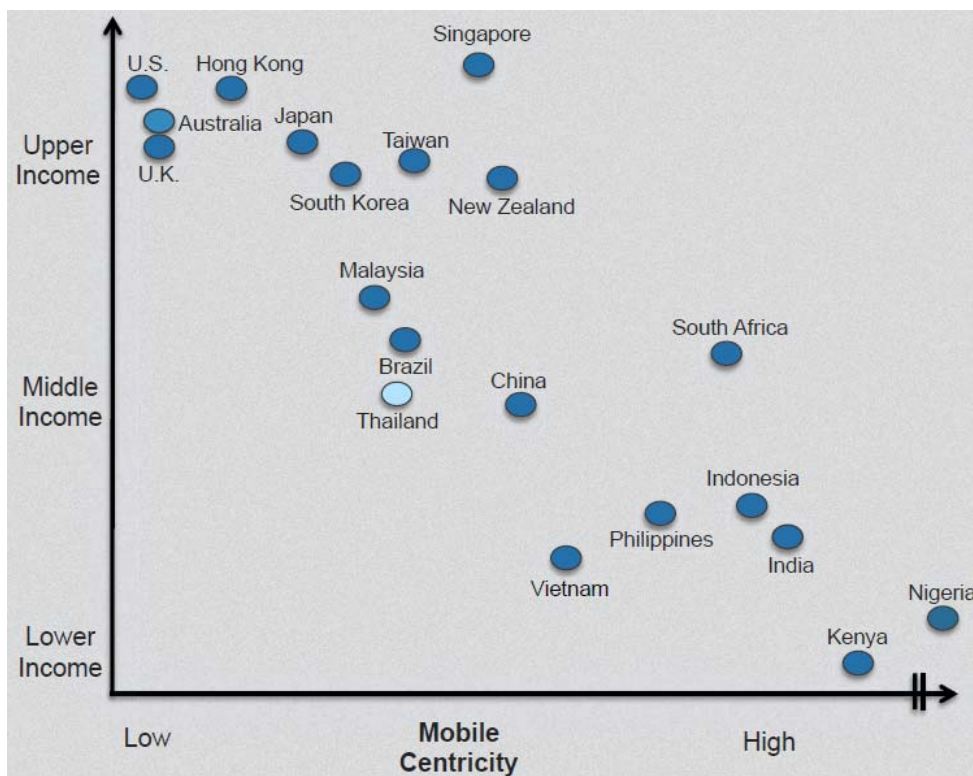
	<b>Mobile as an instrument</b>	<b>Mobile as an industry</b>
<b>Connectivity</b>	How affordable and widespread are mobile devices for the common citizen?	Does the country have manufacturing industries for hardware, mobile phones, software, datacom solutions and services?
<b>Content</b>	Is there useful mobile content (foreign and local) for citizens to use in their daily lives?	Is content being generated in local languages and localised interfaces? Is this being accessed/used abroad?
<b>Community</b>	Are there online/offline forums where citizens can discuss mobile media and other issues of concern?	Is the country a hub of discussion and forums for the worldwide mobile industry?
<b>Commerce</b>	Is there infrastructure (tech, legal) for m-commerce for citizens, businesses and government? How much commerce is transacted electronically?	Does the country have indigenous m-commerce technology and services? Are these being exported?
<b>Capacity</b>	Do citizens and organisations have the human resources capacity (tech, managerial, policy, legal) to effectively harness mobile communication for daily use?	Does the country have the human resources capacity (tech, innovation, managerial, policy, legal) to create and export mobile communications technologies, and set standards?
<b>Culture</b>	Is there a forward-looking, open, progressive culture at the level of policymakers, businesses, educators, citizens and the media in opening up access to mobile communications and harnessing them? Or is there nervousness and phobia about the cultural and political impacts of ICTs?	Are there techies, entrepreneurs and managers pro-active and savvy enough to create local mobile communications companies and take them global?
<b>Cooperation</b>	Is there adequate cooperation between citizens, businesses, academics, NGOs and policymakers to create a favourable climate for using mobile media?	Is there a favourable regulatory environment in the country for creating mobile companies, M&A activity, and links with the diaspora population?
<b>Capital</b>	Are there enough financial resources to invest in mobile infrastructure and services? What is the level of FDI?	Is there a domestic venture capital industry; are they investing abroad as well? How many international players are active in the local private equity market? Are there stock markets for public listing?

Source: Author

In emerging economies, ‘development’ initiatives are now moving beyond top-down approaches and involve local partners and the business community. The private sector has spread technology to middle income groups, and they now see the developing world and underserved populations as viable markets that require targeted products and innovative services (eg. Nokia Life Tools, Reuters Market Light).

This report showcases some of the contrasts in mobile diffusion in Southeast Asia, ranging from the digital urban hubs such as Singapore to the rural and remote stretches of Indonesia and the Philippines. Income disparities and digital divides vary across the region, and a notable phenomenon is the rise of ‘mobile first’ or even ‘mobile only’ users for whom mobile is more important as a medium than landlines, fixed line Internet, TV and newspapers (see Fig. 1, which includes all six countries covered in this report).

**Figure 1: Inverse Correlation between Income and Mobile Centricity**



Source: InMobi

## II. Regional Overview

While much news about mobile in Asia covers China, India, Japan and Korea, it should be highlighted that Southeast Asia accounts for one tenth of the world's population, with Indonesia's population alone around 240 million. The region reflects a diverse mix of cultures, economies, innovation dynamics and mobile/Internet diffusion patterns.

### Crossroads of Innovation

Southeast Asia has been a trade crossroads for thousands of years, and now is a digital crossroads for Internet and mobile innovation as well. Some local markets are large enough or resource-rich to nurture homegrown industry giants that are expanding across the region and outside as well (eg. Singtel). Players from South Asia (especially India) and East Asia (Korea, Japan, China) are increasing their presence in Southeast Asia, and market leaders from the US (eg. Google, Apple) and Europe (eg. Vodafone) have robust business here as well.

For instance, India's software giants have a presence or a regional headquarters in Singapore, and Bangalore-founded startups such as mobile ad network InMobi also leverage Singapore as a regional base. Indian phone manufacturer Maxx Mobile Communications has set up shop in the region in the Philippines, Singapore, Malaysia and Indonesia.

As for China, its social networking giants such as the Sina Weibo website remains available in Chinese only, but any move to embrace English would likely appeal to those in surrounding regions, particularly Southeast Asia — where Chinese culture has roots and the country continues to exert influence (The Next Web: <http://tnw.co/MIRrIU>). Markets like Southeast Asia could develop into new promising 'spill-over' markets for China's social networks. Tencent has already begun tapping this potential with the introduction of its Weixin mobile chat application into the region, branded We Chat. Baidu has revealed plans for a Singapore-based research centre.

### Mobile Infrastructure

Mobile capital expenditure in the Asia-Pacific region is expected to hit US\$53.3 billion by the end of 2012 and carriers in the region have caught up with their North American and European counterparts in service development, according to a report by ABI Research.

62 percent of the mobile capital expenditure will be invested in radio access network (RAN) deployment while EPC and gateway upgrades to the core network will make up 9 percent of spending, according to Jake Saunders, vice president of forecasting at ABI Research (ZDnet Asia: <http://bit.ly/Kd53rh>). Another key area that operators are looking at is improving in-building wireless coverage into dense urban centres at 5.7 percent of mobile capital spending.

The research firm notes that mobile operators in the region had lagged behind western counterparts 10 years ago but now the situation is very different: 62 percent of carriers in Asia were already investing in long-term evolution (LTE). Out of 110 operators in Asia, 10 already have commercial LTE networks up and running, while 58 operators have specific plans to roll out LTE service or are conducting trials.

In Southeast Asia, commercial networks are already up and running in Malaysia where WiMax is preferred over LTE. Singapore operator StarHub has announced that it will be refarming its 2G spectrum for 4G services which will allow its users to enjoy better coverage and a better mobile Internet experience.

**Table 2: Regional Snapshots**

Country	Population	Total number of mobile subscriptions / subscribers	Percentage of mobile penetration	Number / percentage of smartphones v/s feature-phones	Average ARPU	Total number of Internet users	Percentage of Internet penetration	Number / percentage of mobile Internet users
Indonesia	240 million	220 million	92%	20%	IDR 23,238	55 million	23%	29%
Malaysia	28.7 million	35.7 million	124%	27%	RM 45	17.5 million	61.7%	10 million
Philippines	103 million	90 million	~99%	20/80	US\$5	30 million	30%	20%
Singapore	5.14 million	7.79 million	150.4%	73%	US\$35.4	9.43 million	183.5%	8.11 million
Thailand	67 million	77 million	115%			25 million	37.3%	1 million
Vietnam	96 million	180 million Sim card sold, with over 60 million active	~60%	<10%	US\$4-5	30 million	~30%	Estimate: more than half

Source: MobileMonday chapter founders; market research reports cited by Charles Moreira

## Regional m-Commerce

Mastercard recently published the Mobile Payments Readiness Index (MPRI) in 2011 (<http://mobilereadiness.mastercard.com/the-index>). The Index gauges the readiness of 34 countries across the globe in three different categories: peer-to-peer, mobile commerce, and point-of-sale. An overall score was given for each country, with a score of 60 indicating an inflection point where a country is ready for the mass adoption of mobile payment. To derive that score, six different factors were weighed on a 0-100 scale.

1. Consumer readiness: MasterCard surveyed 1,000 consumers in each of the 34 countries to gauge their familiarity with mobile payment, willingness to use mobile payment and current usage of the three payment types.
2. Environment: economic, technological and demographic elements, such as Internet access and per-capita income.
3. Financial services: depth of the financial services sector, including accessibility and affordability, and penetration of digital (plastic card-based) payments.
4. Infrastructure: mobile phone penetration, network coverage and breadth of NFC terminals.
5. Mobile commerce clusters: partnerships among financial services, telecommunications companies, governments and technology providers.
6. Regulation: structure and efficiency of each market's legal and governmental bodies.

Singapore is the most mobile payment-ready nation in the world, according to the MPRI. Philippines came in second in Southeast Asia, followed by Malaysia, Thailand, Vietnam, and Indonesia. Generally, countries in the Asia-Pacific have done well in terms of consumer readiness. Singapore has emerged on top primarily because of its infrastructure and regulatory environment: the entire population base is covered by mobile phone networks, while its laws on information and communication technology are well-developed (SG Entrepreneurs: <http://bit.ly/LLPZM7>). Malaysia is within the top ten in both categories; Filipinos are third most open to mobile payments in the world.

But Indonesia's overall score flagged due to lack of consumer readiness and mobile commerce clusters. The country's population are not familiar with mobile payments, and score low on willingness and frequency of use. The upside is that their willingness to use mobile payments score higher than familiarity, meaning with enough marketing and consumer education, Indonesians could be adopting the technology in large numbers.



Many Asian users have skipped the personal computer (PC) stage to use the Internet on mobile devices. Asia also has a large "young" population, with most of them being "e-savvy" and enjoying the use of technology devices, according to Elias Ghanem, managing director of PayPal Southeast Asia and India. The region has the right recipe for making people spend more online through mobile devices.

## **Mobile Shopping**

The MasterCard Worldwide Online Shopping survey, which serves as a benchmark to measure the trend to shop online, was conducted across 25 markets, 5 December 2011 and 6 February 2012. Interviews were conducted with 7,373 respondents from 14 markets in the Asia/ Pacific region about their online shopping habits (TTR Weekly: <http://bit.ly/KVDZ0d>).

Thailand was ahead in the region for online shopping (80%) and likelihood to make an online purchase in the next six months (93%), alongside China. Korea (84%) and Malaysia (79%) also showed high intent to purchase over the next six months, with Vietnam scored (87%) despite a low percentage of people using the Internet for online shopping (61%).

Overall, big increases occurred in Indonesia and the Philippines (+15% each); Thailand (+13%); and Australia (+10%) in terms of online shopping. There were declines of 10% recorded for Singapore. The survey also said although a majority (71%) of respondents said they would rather use their laptop for shopping, using mobile phones to book gained points. In Thailand 59% said they would use mobile phones; China (37%); and Vietnam and India (32% each) all leading more established markets. Mobile phone users bought Apps and music at 31% and 24% respectively followed by coupon deal sites and retailers for clothing and accessories (17% each), and cinema tickets (16%).

“The markets once considered to be emerging in South East Asia are now in fact challenging - and in some cases overtaking - traditional and mature online markets in the region,” according to Philip Yen, group head, Emerging Payments, Asia Pacific Middle East Africa at MasterCard Worldwide. On top of this, smartphones are gradually becoming a trusted device of choice for shoppers in the region.

## **Smartphone and Tablet Boom**

The growth of Southeast Asia’s smartphone market has been impressive – with nearly 7.7 million units of phones bought in the first three months of 2012 in the region’s key markets of Singapore, Cambodia, Indonesia, Malaysia, the Philippines, Thailand and Vietnam, according to market research company GfK Asia. Indonesia chalked up sales exceeding US1.4 billion in smartphones in 2011, and markets like Singapore and Malaysia have a smartphone penetration rate of 88%.

One in three mobile phones sold last quarter in Southeast Asia was still a feature phone. But the share of smartphones has been rising and today contribute more than 66% to the overall mobile phone pie, up from a 2011 figure of 50% in quarter one.

"The largest smartphone market in this region expectedly is Indonesia which has a smartphone penetration rate of 62%," according to Gerard Tan, Account Director for Digital Technology at GfK Asia (GfK Retail and Technology: <http://bit.ly/LQX14p>).

Touch-only interfaces account for more than seven in ten (71%) smartphones—a considerable jump from 47% in 2011. GfK reports revealed that over 35% of all smartphones sold in Southeast Asia in the first three months of 2012 were equipped with a camera of eight megapixel or more, as compared to figures a year ago which was only 12%. This mounting trend is especially apparent in Cambodia (70%), Singapore (67%) and Malaysia (58%).



The relatively stable prices of smartphones averaging around USD 300 in the region will continue to drive the industry's strong growth momentum. "In developing Southeast Asia where smartphone penetration is still nowhere near saturation levels, we can be sure that the current sales spurt will carry on for at least the next few years. With much of the populace still not owning a mobile phone, there is no better place for global mobile phone brands to focus their sales and marketing efforts," according to GfK's Tan.

**Table 3: Mobile Market Dynamics in Southeast Asia**

Country	Three unique strengths / attractions of the local mobile market	Three key challenges faced in the local mobile market	Three key recommendations to industry / policymakers to accelerate innovation
Indonesia	1. Massive market size	Quality of connection	Industry incentive (funding, tax benefit, grants)
	2. Cheap mobile data rate	No payment mode	Market education & industry campaign
	3. Cheap devices supporting data	No ecosystem support	Relaxing the regulation to encourage innovation
Malaysia	1. Well established telcos in the region	Low smartphone penetration rate	Lower data rates
	2. Fantastic testing ground for huge Indonesian Market	High data charges (compared to region)	Lower smartphone import taxes
	3. Multi lingual/ cultural	ARPU declines yearly	
Philippines	1. SMS based services are key to success	Low smartphone penetration	Stronger market regulation
	2. High mobile phone penetration	High cost of mobile / fixed line Internet	Enforce fair, reasonable and non-discriminatory access to fixed line and mobile networks for third-parties
	3. Mobile payments are widely accepted	High cost of Smartphone devices	
Singapore	1. Great starting point to expand across Asia	The Singapore market is too small to focus on by itself.	Encourage and educate startups on how to build products for markets outside of Singapore, especially emerging markets like Indonesia and the Philippines.
	2. Growing access to capital for startups	Shortage of technical talent.	Continue to embrace foreign talent.
	3. High smartphone penetration is a great market to test interest in both iPhone and Android apps.	Costs are highest in the region.	Grants and tax breaks.
Thailand	1. Leading market in Southeast Asia for online gaming	Nobody wants to pay for games	Highly attracted customers
	2. 78% of smartphone users have iPhone	Thais are ready to spend three times their average monthly salary for a phone	Need to find a right angle for the market, and high price point is acceptable
Vietnam	1. Large population	Operators want to eat all the things, including apps.	All operators in VN belongs to government, so gov needs to manage them that let the CPs to grow.
	2. Mobile and Internet penetration is high.		
	3. OTT payment is on its way to grow.		

Source: MobileMonday chapter founders/organisers

Android has propelled Samsung to the top of global smartphone (and overall mobile) sales and the operating system is flourishing in Southeast Asia, where it now accounts for half of all smartphone sales. Powered by a range of devices, the Google-owned platform's share of smartphones sold in the region tripled to account for 49 percent during the first quarter of 2012, up from 15 percent in Q1 2011,



according to GfK Asia's Seraphina Wee (The Next Web <http://tnw.co/LKySw1>).

The wide range of Android devices, which cover affordable and budget phones as well as mid- and high-range smartphones, is key to its continued growth in Southeast Asia and other regions. With little operator subsidisation to help users afford expensive phones, GfK expects low- to mid-range priced smartphones will continue to drive the sector forward.

More than 1.6 million tablets were also sold in 2011 across the six emerging economies in Southeast Asia (SEA), registering a total US\$962 million for the industry, according to GfK Asia. The biggest market for tablets was Malaysia where sales revenue for 2011 totaled US\$374 million. Google's Android OS was the top-selling tablet OS among the six countries in 2011, accounting for nearly two in every three tablets purchased or about 1.03 million tablets altogether (ZDnet Asia: <http://bit.ly/KKu6mD>).

## Online Gaming

The online gaming market is rapidly growing in the entire region of Southeast Asia, according to market research firm yStats.com. Revenue generated in this market is expected to more than double between 2011 and 2015. Social gaming has become a significant trend, drawing more and more new users and generating more revenue (Sun Herald: <http://bit.ly/Obyvwo>).

The Asia Pacific region overall is poised to contribute to the growth of the global games market which is set to grow 17 per cent from US\$60 billion in 2010 to reach US\$70 billion in 2015. "Southeast Asia last year represented about eight per cent of our total Asia revenue. This year should be forecast to around 12 per cent and that number steadily rises as the developers grow within Southeast Asia," according to John Goodale, general manager at Unity Technologies Asia (Channel News Asia: <http://bit.ly/MxPdH5>). The company has signed a Memorandum of Understanding with Singapore Polytechnic to be the primary game engine in the school's game development course in a bid to nurture more interest in this lucrative field of technology and to develop a Centre of Excellence.

Friendster has officially announced its transformation into a social discovery and gaming platform in Asia. Globally, Friendster has over 100 million registered users. Currently, more than 50% of its active users are from the Asian region. The top four highest traffic comes from Philippines (13.27%), India (13.26%), Indonesia (11.79%), and Malaysia (11.28%). Friendster was one of the pioneering companies that sparked the Web 2.0 movement in 2002. It was acquired by Asian e-payment provider MOL Global in a deal valued at \$39.5 million in 2009 (Forbes: <http://onforb.es/Mr3phl>).

## Challenges

But as Southeast Asia becomes increasingly wired, smartphone-filled and social-media obsessed, a Google study showed that Internet speeds still lag behind in some countries in the region (Wall Street Journal: <http://on.wsj.com/LQVPhj>). Indonesia has low web page loading speeds, an average of 20.8 seconds. This is more than six times slower than South Korea, where a website takes 3.4 seconds to load, one of the world's fastest, and China where a website takes 6.8 second to load.

Thailand and Malaysia fared slightly better, with a page taking 9.6 and 14.3 seconds to load through a computer browser respectively. But as mobile Internet grows dramatically in the Southeast Asian region, the pace of mobile Internet cannot keep up, with an experience "about 1.5x slower than the desktop experience," according to Google's statistics. This is especially pertinent for users in countries like Indonesia, where a young population is accessing the Internet for the first time through their Blackberries or iPhones rather than their desktops and usage of mobile social networking sites like Twitter are among the highest in the world.



Almost all of Southeast Asia's biggest economies ranked on the bottom of the scale comparing mobile Internet speeds – including Indonesia and Singapore at 12.9 seconds, Malaysia at 12.7 and Thailand at 17.4. Even in Singapore where technology infrastructure is ahead of its neighbours, many users still complain of slow Internet connections when accessing websites through their phones, according to the Google study. Unlike India, one of the first markets in Asia to be 4G-enabled, Singapore will only be 4G-ready in 2016.

Though highly active, creative and vibrant community of developers exist, they are hampered by language and localisation issues, made worse by the high revenue share of 70-80% imposed by telcos, which discourages creativity as ARPU numbers per country are still small," observes Felix Lee, Director at T.Ware and mentor at NTU Ventures.

## **Regional Assessments**

"Many telcos in Southeast Asia are fully-owned subsidiaries of larger more successful telcos from other parts of Asia and Europe. A lot of the knowledge transfer and skill-sets are being built on their success stories, and thus the learning curve proves faster, resulting in market growth," says Rolly Pane, Head of Digital Strategy & Innovation at D3 (Dentsu Digital Division) in Jakarta.

Pane identifies Indonesia's NuMedia - Mig33, Vietnam's NaisCorp - Socbay IMedia, Singapore's BuzzCity, and Malaysia's Listed MNC Corporation as successful regional mobile startups. Indosat is the first regional market to try out a mobile augmented reality game. Dentsu launched the iButterfly app and competition in Japan, Hong Kong and Indonesia.

According to research firm Canalys, mobile phone shipment in Southeast Asia is still growing and expected to reach 163 million by 2015. "This is indicative of a continued strong demand for mobile phones and services in Southeast Asia. This can also be seen from the mobile penetration rates of various countries in the region. The penetration rate in countries like Singapore is way above 100 percent. Southeast Asia is also home to high growth markets like Philippines and Indonesia, which are experiencing double digit growth rates," says Erwann Thomassain, Head of Marketing, APAC, Amdocs.

The Philippines is expected to achieve a mobile penetration rate of 114 percent by the end of 2016 (Business Monitor International); Singapore has a mobile penetration of 145 percent (IDA); 9.6 out of 10 Thais have a mobile phone, and there are more than 66 million SIM cards in active use (Nielsen).

Besides strong growth, a unique strength which can be observed within the telecommunications industry in Southeast Asia is the willingness of communication service providers to innovate and partner with non-traditional players. "As a result of increased competition and a more sophisticated subscriber base, operators are open to new business models and looking at new innovative ways of doing business," adds Thomassain. One example of this is the trend of service providers establishing strategic partnerships with OTT players such as Skype and Google. Service providers are also bundling their services to make offerings more appealing to subscribers.

"Another unique strength is the ability of service providers in the region to meet the unique needs of subscribers by connecting them to the wider communications industry through tailored apps that link local aspects to wider benefits," explains Thomassain.

With a growing middle-class and lots of young, tech-savvy people, Southeast Asia presents huge opportunities for growth in mobile. Many of those people experience the Internet via their smartphone rather than desktop computer - 'mobile-first' and 'mobile-only' consumers. "This is particularly true of Indonesia and the Philippines. Mobile is more important to them and is a vital gateway to potential

consumers than is currently the case in many of the countries of Europe and Northern America,” says Stewart Hunter, Somo’s VP Business Development, APAC.

“Most markets in Southeast Asia are ‘mobile first.’ Thailand is a market where mobile Internet usage is higher than desktop. Numerous campaigns have been launched on location targeting and proximity marketing for the retail sector with double digit conversion rates driving footfall and mobile purchases for traditional retailers and malls,” observes Claire Mula, founder of mobile shopping service Sprooki.

Mobiles are being used in innovative ways in Southeast Asia, says Felix Lee, Director at T.Ware and mentor at NTU Ventures. These include tracking exercise via the cloud; booking a singles event for speed dating; using the mobile accelerometer to detect pets and communicate with them in dog/cat language; use of SIM-based monitors as detectors/dataloggers for seismic anomalies and to monitor earthquakes/tsunamis; location-based marketing and predictive tracing. Innovative mobile startups in the region identified by Lee include Cabzz (location-based taxi booking service); Gumtree and LobangClub (proximity advertising and sales), and T.Ware (mobile channels to save profile data for autistic kids, transmit haptic jacket preferences, track lost kids).

“People are using mobile more than ever, and are using it more than any other medium,” says Rohit Dadwal, Managing Director, Mobile Marketing Association Asia Pacific.

In markets where 3G and Smartphone penetration is rapidly growing above 75% and 25%, policy makers should work towards a cross operator, cross OTT player API model so that coordinated innovation can get institutionalised and the collective power of all smartphone users can be brought to bear to solve social and economic problems. Those countries would include Singapore, Malaysia and increasingly Indonesia. “In the other markets of Southeast Asia, policy makers need to wean the entire value chain away from services that distribute professional content such as movies and music, and move towards multi-party services that utilise user generated content,” advises Sanjay Uppal, president of OnMobile Global.

### Country Snapshots

For reasons of space and focus, this report focuses largely on the six key Southeast Asian markets of Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam. Future reports will include other countries such as Cambodia and Laos; brief overviews of these markets are presented in Table 4.

**Table 4: Mobiles in Cambodia and Laos**

	<b>Cambodia</b>	<b>Laos</b>
Population	14.3 million	6.5 million
Mobile subscribers	8.1 million	3.2 million
Mobile penetration	53.7%	48.8%
Internet users	0.2 million	0.4 million
Internet penetration	1.0%	5.5%
Opportunities	Large room for growth; 53.7% of mobile users are on 3G; foreign players active (France Telecom, Indonesia’s Telkom)	Large room for growth; foreign players active (Vietnam’s VietTel)

*Source: Adapted from PwC “Making Waves: Southeast Asia Series 2011”*

### III. Country Profiles

This section profiles the six key Southeast Asian mobile markets of Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam. Each profile includes an infographic and insights on device penetration, mobile commerce, local startups, and socio-economic impacts.

#### *Indonesia*

Indonesia, the world's fourth largest nation, was one of the hardest-hit victims of the Asian currency crisis in 1997-98. The country has since transitioned from a dictatorship to a democracy, with significant market reforms. The economy has grown at an annual rate exceeding 5% in seven of the past eight years, mainly due to increasing consumption by the rising middle class. The country now has a population of more than 240 million, behind only China, India and the US. Indonesia was one of the very few countries which had a positive stock market performance in 2011 (NASDAQ: <http://bit.ly/Lr3IAG>).

Indonesia may be on the brink of a revolution in wireless Internet access, according to the Strategy Analytics Emerging Markets Communications Strategies (EMCS) service. The report, "EMCS Country Profile: Indonesia," argues that the limited penetration of fixed Internet services presents a major opportunity for mobile operators to fill the gap with wireless offerings (Market Watch: <http://on.mktw.net/KY3HA3>).

With rising incomes and a young, well-educated population (adult literacy is at 92 percent), the demand for Internet access is high, but the wireline infrastructure is not in place to handle it, and is not likely to be. "To wire up a nation spread over 17,000 volcanic islands is not going to happen," according to Tom Elliott, director of EMCS.

Indonesia's nine mobile operators have been developing and promoting wireless broadband services with pre-paid pricing plans that are affordable to even low-income consumers. Telkomsel, the market leader, already has about 4 percent of its subscribers signed up for mobile broadband service, a number that has been roughly doubling the past several years. XL Axiata, the number three operator, now gets 15 percent of total revenues from advanced data services.

"With nine operators, Indonesia is a very competitive market, which has helped to hold down mobile data pricing," notes Rahul Gupta, senior manager for Strategy Analytics EMCS in India. The Indonesian model, in which mobile data services are a volume game rather than a high end niche product, is potentially a good one for other emerging market operators to follow.

Indonesian operator PT Telkomsel had revenues of Rp 12.2 trillion (US\$1.3 billion) in the first quarter of 2012, an increase of 9 per cent when compared to the same period in 2011. Its base of cellular subscribers crossed 109 million, cementing its position as market leader with 43 percent of the cellular customer market share.

**Figure 2: Indonesia Mobile Infographic**



Source: InMobi

### Spotlight: Blackberry in Indonesia

With the Canadian company RIM struggling to maintain its market share in the US and Europe, its smartphones continue to top the sales charts in Indonesia, where more than 12 million users use their instant messaging, email and Internet surfing capabilities (out of around 77 million users worldwide). BlackBerry is reportedly the number one-selling smartphone in emerging markets such as South Africa, Nigeria, Saudi Arabia, Indonesia, Columbia and Mexico (The Citizen: <http://bit.ly/LdaGDi>).

"Many developers in Indonesia have already committed to BlackBerry 10, which means that end-users, both in Indonesia and throughout the world, will enjoy a powerful and content-rich experience on the new platform," according to Hastings Singh, managing director of South Asia for RIM (KDFW: <http://bit.ly/KtCWk9>).

There are already a lot of applications for those addicted to the so-called CrackBerry from Ambon to Banda Aceh -- search "Indonesia" in Blackberry App World, and it reveals 73 apps, three games and 17 themes connected to the country.

"There's no reason why Indonesia can't set up the best applications for BlackBerry. We anticipate that happening," according to Singh. Indonesia is an important market for BlackBerry retail with some 6,000 people working in the supporting channel. RIM also inked an agreement with the Bandung Institute of Technology (ITB) for mobile application research for BlackBerrys with a pledged investment worth US\$5 million over five years. The agreement is expected to spur students to do research on developing mobile applications (Jakarta Post: <http://bit.ly/Kdbhak>).

But RIM's success in Indonesia is accounted for by some factors not all of which are replicable outside Indonesia (Reuters: <http://bit.ly/Lrdw85>). Indonesian operators started early, among the first in the world to adopt RIM's experimental stripped-down pricing plans which offered basic services at a fraction of the usual enterprise prices. Now plans start at as low as \$5 per month. This nurtured a vast ecosystem for services such as repairs and second-hand sales before RIM had even set up office in Indonesia in 2010. But doubts over RIM's future can dent interest among Indonesian developers.

The growing popularity of messaging services such as WhatsApp that use a cellphone's data connection offer a cheap alternative to SMS — as well as a way to build BBM-like groups without having to own a BlackBerry. WhatsApp has recently released versions of its software that work on even the lower-end Nokia phones running the Symbian operating system that still account for up to two-thirds of Indonesian cellphone users, according to StatCounter, a traffic monitoring service.

## **Mobile Marketing and Commerce**

Indonesia is the largest Blackberry market outside Canada and a leading user of Facebook and Twitter (in 2010, Indonesia became the second largest Facebook nation). The number of mobile phone banking transactions is much faster than that of Internet banking transactions in Indonesia.

Indonesians really hopped on board an Axe deodorant “Call Me” mobile marketing campaign which featuring young men who used the product and then received phone numbers from attractive young women. These phone numbers were live, and people could call them to be connected to interactive voice response (IVR) systems that let them talk to the young ladies, and even set up “alarms” so that they would receive phone calls from them to wake them up in the morning. “The response to this campaign was so great that the brand had 300% increase in sales, and the campaign has since been run in India to similar success,” says Rohit Dadwal, Managing Director, Mobile Marketing Association Asia Pacific.

Indonesia now has an official association for e-commerce sites in the country, called idEA. “The potential of Indonesia e-commerce is huge, with 55 million users, 52 million small and medium businesses, and with 57 percent of online users shopping online. With that in mind, idEA has a vision to make Indonesia the biggest digital economy in southeast Asia, and contribute significantly to the economy as a whole. The mission is to educate the market and the users, and to promote and develop human resources for the e-commerce industry,” according to Daniel Tumiwa, coordinator of the idEA operational board (Tech in Asia: <http://bit.ly/JVAXDA>).

Commonwealth Bank Indonesia, a subsidiary of Commonwealth Bank of Australia, is tapping into the growing mobile-phone banking market in the country as the total number of middle-class consumers continues to expand. The bank was awarded “Special Commendation for Mobile Banking” during the Banking & Payment Asia Trailblazer Awards 2012.

“Up to 80 percent of the Indonesian population is younger than 40 years old. 35 percent of them use social media. If you look at the way people interact and travel in Indonesia, mobile phones play a key part,” according to Commonwealth Bank Indonesia’s director Ian Phillip Whitehead (Jakarta Post: <http://bit.ly/MqHx66>).

The bank’s mobile banking applications have also changed its customers’ banking habits. “Before mobile banking services, customers’ transactions peaked only during lunch time. After the launch of mobile banking, the number of transactions peaks before and after lunch time. Our target is that 100 percent of our Internet banking users will use our mobile banking services too, by the end of this year,” according to Whitehead.



## Cause for Caution

Despite this growth, PT Telkomsel president director Sarwoto Atmosutarno cautions that the entire telecommunications industry in Indonesia is under pressure. SIM card penetration has reached 120 percent, with a majority of penetration directed towards the mid-low market segment that generates a low ARPU. With 65 percent of all customers falling in the mid-low segment, the pressure to grow the top line segment has been massive because it is difficult for telecommunications companies to achieve double-digit growth just relying on voice and SMS, according to Atmosutarno (Jakarta Post: <http://bit.ly/MqWzJ8>).

“Based on our calculations, there’s still room to grow, not in the person-to-person market, but in the machine-to-machine market given that there are many devices these days that need SIM cards to connect with each other. For example, we use SIM cards for the M2M connection between electric meters as well as water meters,” adds Atmosutarno.

Other challenges faced by service providers which Amdocs has observed in Southeast Asia include: need for service providers to monetise data traffic, need to “stay ahead and need to maximise profits. Service providers should consider introducing innovative pricing schemes and monetisation strategies based on customer experience rather volume of speed. Service providers need to stay on top and bring in the right innovation at the right time, eg. via OTT alliances. Service providers need to find ways to deliver an outstanding customer experience to their subscribers and offer the latest innovation in the most cost efficient way for them.

## Mobiles for Social Protection and Inclusion

Blackberry online groups in Indonesia now discuss not just entertainment and business but social issues as well. For instance, the Indonesian Child Protection Commission (KPAI) has launched a BlackBerry Messenger group to report cases of child abuse.

“Due to long and convoluted processes in handling child abuse cases, related individuals and institutional representatives need a communication method to help them work effectively,” according to KPAI secretary M. Ihsan (Jakarta Post: <http://bit.ly/KJn6q8>). NGO representatives, local administration officials and human rights commissioners are among those now connected through the BB group. This can help cut the red-tape in handling child abuse cases, allowing more cases to be solved.

In order to help immobilised and mute people converse with each other, entrepreneurs Josep William Widjaja and Ridwan Djuhari have developed abilities augmentation products leveraging mobile platforms. Aibilities is one such product, as well as DokterKita (DoKita in short; “Our Doctor” in English). DoKita is a telemedicine app for consultation and healthcare services from doctors; inputs are sought from more doctors (maternity, infant health and nutrition specialists).

The entrepreneurs developed an eye-tracking Android app to provide a communication platform for those with movement disabilities. The team won the Android Samsung SparxUp Awards in 2011. Partnerships with Ikatan Dokter Indonesia (IDI) Jakarta Barat have been established. Another tie-up is with Lab Wira, for moving medical tests and results to the cloud and providing users with web and mobile access.

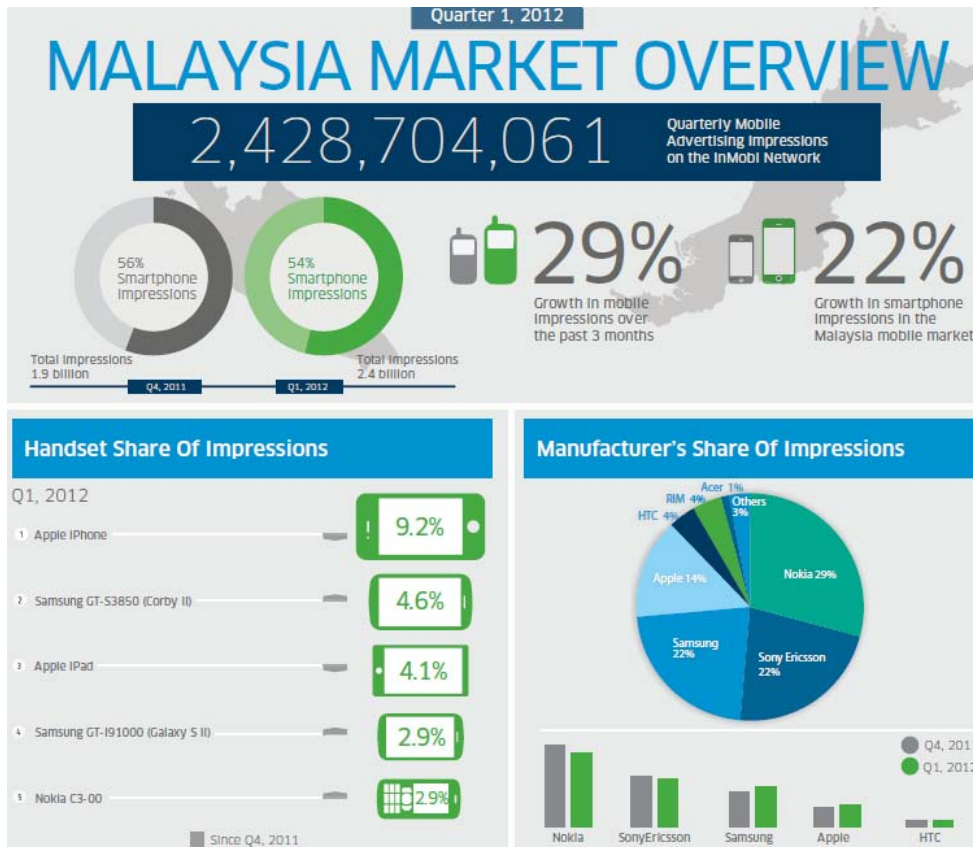
“Realistically speaking, we plan to hit around 1,000 users for Eye Control and 5,000 users for Dokita this year. If the users respond positively, new features such as remote control for television or air-con and SMS with the ability to send fixed-sentence messages will be launched soon afterward,” according to Widjaja (e27: <http://bit.ly/Mx4aoJ>).



## Malaysia

“Malaysia has strong regulator support for competition in the mobile industry, creating a mature market with mobile penetration exceeding 100%. Continuous network upgrades increase demand for mobile broadband including rural market,” according to Helena Chong, Deputy Director, Special Projects Division, Malaysian Communications and Multimedia Commission (MCMC). MCMC also has a Creative Industry Development Grant (CIDG) worth RM100 million.

**Figure 3: Malaysia Mobile Infographic**



Source: InMobi

A range of mobile services and apps has emerged in Malaysia, a market with more than 100 per cent penetration of mobiles. These services range from mobile government and entertainment to commerce and citizen journalism, as summarised in Table 5.

Malaysia aims to become an innovation-led, knowledge-rich and progressive society and nation, according to Multimedia Development Corporation (MDeC) creative multimedia vice-president and director Kamil Othman. It drives three industry clusters – IT, Creative Media, and Shared Services/Outsourcing. Household broadband penetration has exceeded the 50% target set by National Broadband Implementation (NBI), and mobile broadband will be spurred through smartphones and 3G networks.

**Table 5: Mobile Services and Apps in Malaysia**

m-Government services	m-Health	m-Education	m-Entertainment	m-Commerce	Mobile marketing / advertising	Citizen journalism
<b>MyEG</b> <a href="http://www.myeg.com.my">www.myeg.com.my</a>	<b>Maxis myHealthy Heart app</b> <a href="http://www.maxis.com.my/apps/default.html">http://www.maxis.com.my/apps/default.html</a>	<b>Learn Chinese app</b>	<b>Astro Beyond Player mobile app</b>	<b>Maybank2u</b> <a href="http://maybank2u.com.my">http://maybank2u.com.my</a>	<b>Groupon</b> <a href="http://groupon.com.my">http://groupon.com.my</a>	<b>The Star app</b> <a href="http://www.thestar.com.my">www.thestar.com.my</a>
<b>Malaysia Police Summons app</b>	<b>Easy Cooking with Nestle</b> <a href="http://www.nestle.com.my/Nutrition_Health_Wellness/mobile_applications/Pages/index.aspx">http://www.nestle.com.my/Nutrition_Health_Wellness/mobile_applications/Pages/index.aspx</a>	<b>English Malay Dictionary app</b>	<b>AMP Radio App</b> (various radio stations)	<b>Cimbclicks</b> <a href="http://Cimbclicks.com.my">http://Cimbclicks.com.my</a>	<b>Mydeal</b> <a href="http://www.mydeal.com.my">www.mydeal.com.my</a>	<b>New Straits Times app</b> <a href="http://www.nst.com.my">www.nst.com.my</a>
<b>MyDistress app</b>		<b>Malaysia Travel Guide app</b>	<b>1MalaysiaTV app</b>	<b>AirAsia app</b>	<b>iproperty app</b> <a href="http://Iproperty.com">http://Iproperty.com</a>	<b>Mobilekini app</b> <a href="http://www.malaysiakini.com.my">www.malaysiakini.com.my</a>

“MoLoCo” apps (for mobile-local-commerce) will be in big demand in Malaysia, according to Mike Bikesh, CEO, iTrain. At the same time, there are risks and threats via inadequately secured mobile devices, mobile viruses, and careless users, cautions Anwer Yusoff, Head at CyberSecurity Malaysia (GoMobile 2012 conference: <http://mobile.techsparks.com/?p=309>).

Trust is important to grow the mobile commerce sector and startups revolving around mobile shopping. Malaysia achieved a score of 34.3 on the MasterCard Mobile Payments Readiness Index. The country scores well on regulation and infrastructure and has a few bank-telco partnerships in place to drive mobile payments adoption. But overall consumer readiness is weak and will be a barrier to adoption if not addressed.

Annual awards such as the GoMobile Awards spur and encourage development, improvement and originality. For instance, the ten mobile applications that received iOvation Malaysia Awards in 2012 included Endeavor Mobile (Android medical image software); m2u Mobile Payment (app by Maybank); Augmented Reality Muslim Toolkit (by Limkokwing University); and SecQ.me (mobile personal safety app). The Asia Pacific Mobile Learning & Edutainment Advisory Panel (APACMLEAP) Mobile Learning Initiatives Recognitions were awarded to five organisations for their efforts in the area of mobile learning, including Majlis Perbandaran Subang Jaya.

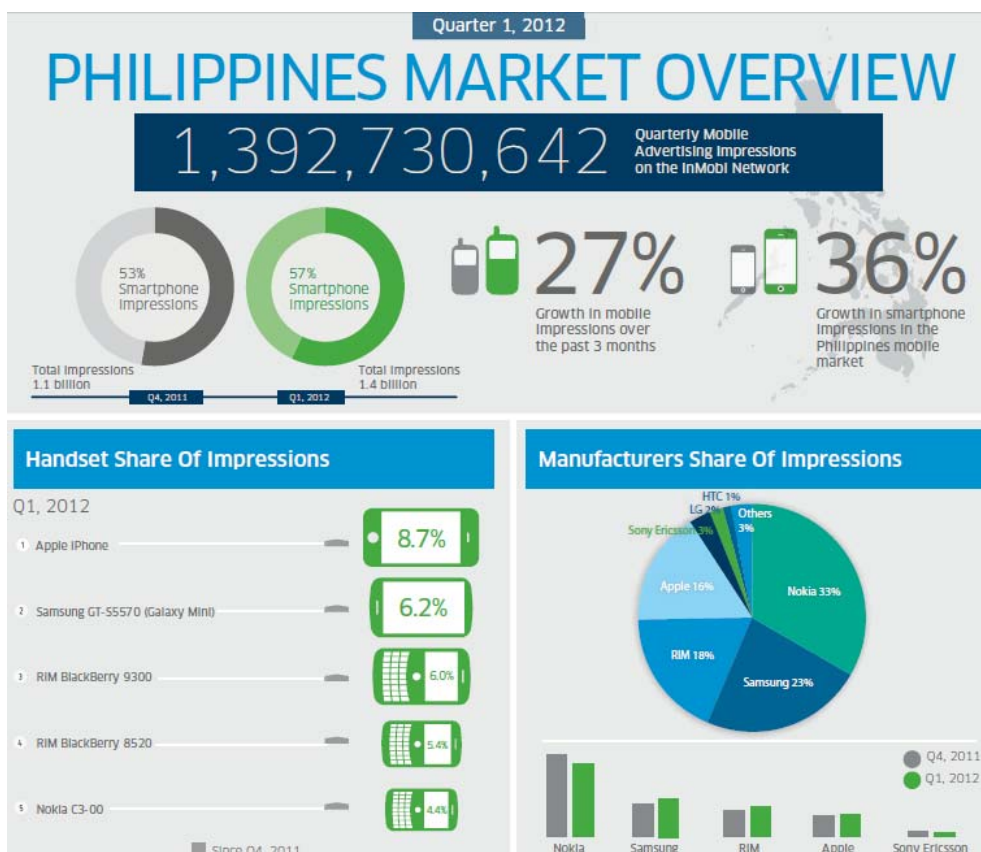
Challenges faced in the mobile sector in Malaysia include profitability threats brought about by new investment needs of operators. This calls for more innovative network sharing and partnerships among competing operators, human capacity development in driving innovation in applications and content development, ICT innovation in other sectors, and open frameworks and programmes for developers, MCMC’s Helena Chong concludes.

## Philippines

The Philippines is the world's 12<sup>th</sup> largest mobile market. The market is reaching 100 percent penetration (though there is evidence that multiple SIM use is swelling the numbers). The Philippine Long Distance Telephone Company (PLDT) has consolidated its lead in the country's mobile market following its recent acquisition of Digitel and is now set to deploy LTE alongside rival Globe Telecom (Wireless Intelligence: <http://bit.ly/LIB1dF>).

At the end of Q1 2012, PLDT's total mobile subscriber base stood at 66.1 million. Globe Telecom reported 31 million subscribers in Q1 2012. The operator, which is 47 percent owned by Singapore's SingTel, is concentrating on boosting its postpaid subscriber base. Globe also has a fast-growing mobile broadband business based on its Tattoo-branded datasticks, which accounted for about 80 percent of its 1.5 million total broadband customers in Q1. Globe is planning to upgrade all of its 7,060 cell sites (12,714 base stations) to LTE as part of a US\$790 million network modernisation drive in 2012.

**Figure 4: Philippines Mobile Infographic**



Source: InMobi

## Mobile Internet

The Philippines is the fastest-growing smartphone market for Southeast Asia, with the value of smartphones sold growing by 402 percent in the first quarter of 2012 over the same period in 2011 (Inquirer: <http://bit.ly/MIEAXg>). The size of the smartphone market in the Philippines, however, remains small compared with its neighbours. Smartphone penetration in the country at the end of March 2012 was pegged at 29 percent, less than half the penetration rate in Indonesia. Smartphone sales in the Philippines

were valued at \$265 million in the first quarter of 2012.

Riding on smartphone offers bundled with mobile data, mobile Internet usage in the Philippines is growing. Smart Communications's first quarter mobile Internet revenues in 2012 rose 71%, driven by postpaid data plans bundled with smartphones, according to Chief Wireless Advisor Orlando B. Veja (Manila Bulletin: <http://bit.ly/MZUVE1>). "As smartphones become more pervasive and easier to use, more Filipinos will use it to access the Internet," Veja projected.

But telcos in the Philippines should offer more pricing innovations for mobile broadband products to take advantage of increasing demand for Internet services, according to mobile solution provider Ericsson, in its recent ConsumerLab study. "It seems there is a strong demand for Internet connectivity in the Philippines, particularly for mobile broadband," according to Vishnu Singh, regional head of ConsumerLab for Ericsson in the Southeast Asia and Oceania region (Business World: <http://bit.ly/LgsI6b>).

66% of non-Internet users are interested in using an Internet related service on a mobile phone. Mobile penetration in the Philippines is estimated at 97%. Ericsson recommends that operators should leverage on their policy control features in their network to develop more innovative and segmented offerings -- for example, to create smarter prepaid mobile broadband packages.

There are currently around three million broadband subscribers, a penetration rate of only 3% for a population of 94 million. Video as a service will continue to be in demand in the next few years, with 70% of the study respondents signifying that they had done video calls on their personal computer in the last 12 months. Video calls are an important means for Filipino families to keep in touch with overseas workers.

### **Mobile Banking and Commerce**

Mastercard's Mobile Payments Readiness Index (MPRI) showed the Philippines having strong Consumer Readiness and Mobile Commerce Cluster scores. The Philippines was given a total score of 34.7. Women showed higher levels of interest than men, for m-commerce in countries such as China, Egypt and the Philippines (Business Mirror: <http://bit.ly/KW2yKB>).

The Philippine government is currently using mobile payments for cash transfers to remote areas, while consumers are using m-commerce (17 percent) and peer-to-peer (15 percent) as modes of payment. Like Kenya, the Philippines is currently using mobile payments for money transfers. There is cooperation between top mobile network operators and the government Conditional Cash-Transfer Program (CCTP) to use mobile payments to transfer money to remote areas.

"If the enthusiasm of consumers can cause the Philippines to invest in improving some infrastructure and regulatory issues -- the way they have invested in coordinating efforts with banks and telecom companies -- the Philippines could see great advances in its mobile payments future," according to the Mastercard report.

As for mobile banking, Bank of the Philippine Islands (BPI) hopes to gain more users of their Express Link online banking facility by offering a mobile version for even quicker banking transactions. Since launch in 2011, 400 corporations and 2,500 users have enrolled in the Express Link Mobile as of April 2012 (Sun Star: <http://bit.ly/LKQ98e>).

## **Mobiles and Tourism**

Chikka, a pioneer in Web and mobile utilities integration, now provides support for the mobile component of Smart Telecommunication's Smart Travel More! Live more campaign (The Star: <http://bit.ly/Nr3oPC>). Chikka, founded in 1999, created one of the world's first instant messengers for online chat to integrate mobile features via SMS. The company later on evolved to develop apps for iPhones, Android, Google Chrome, and Facebook, and other telco-grade platforms. It also bagged the prize for "Hear Me" iOS app as the Best Mobile Open Graph service at the recent Facebook Hackathon in Singapore.

Chikka has now partnered with Smart and the Department of Tourism (DOT) to promote travel among its subscribers. The contest allows Smart subscribers to send through MMS or SMS, photos of images as well as slogans that echo DOT's "It's More Fun in the Philippines" campaign. The promo also lets users subscribe to travel tips through SMS.

## **Mobiles Business and Government**

Philippine software companies such as Orange & Bronze (O&B) are tapping the market for cloud and mobile computing. O&B has partnered with Google and VMWare, and provides integration, migration, customisation and support for Google Apps. Mobile computing is also on the rise, as more and more companies now find business uses for mobile platform (Business Mirror: <http://bit.ly/MyeCk4>).

One project is for one of the largest utility companies in the Philippines involving the creation of a tool for managing its assets, which are widely dispersed throughout Mega Manila and beyond. This tool runs on Android tablets for people in the field, and made use of Google Maps as well.

The Philippine Consulate General (PCG) in Dubai plans to undertake a "mobile registration" for overseas voting registration for Philippine elections (Gulf Today: <http://bit.ly/KsAqsp>). There are more than 300,000 Filipinos in Dubai and the northern Emirates. The pre-election procedures, implemented by over 80 Philippine diplomatic missions around the world, began in October 2011.

## **Mobiles and Socio-Economic Development**

In spite of record GDP growth in the Philippines, over 26% of the people live in poverty. 23.1 million Filipinos, about a third of the 90 million total population, lives on less than US\$2 a day. Mobile applications for smartphones and tablets have the potential to change people's lives, provided services and apps are designed that facilitate education, employment and economic opportunity for disadvantaged people. Mobile is a powerful platform to improve economic opportunity for those who do not otherwise have such access. Democratising access to existing knowledge will be essential for their survival.

AppBridge Philippines (<http://www.appbridge.org/philippines>) is designed to be a collaborative online ecosystem bringing together a community of NGOs, application developers, academic institutions, content providers, telecom operators, mobile phone manufacturers, and sponsors to deliver mobile tools designed for empowerment. It grew out of discussions with Young Global Leaders of the World Economic Forum in 2011.

## **m-Health**

The Philippines Department of Health, Tarlac Provincial Health Office and Qualcomm have announced the expansion of the Wireless Access for Health (WAH) project, which uses 3G technology to improve health care in the Philippines. The Field Health Service Information System (FHSIS) is the government's primary method for managing public health data and is used for policy analysis and planning at all levels of public health. The WAH project streamlines reporting and improves access to accurate and timely



patient information for clinicians and decision makers via 3G, building upon the existing Community Health Information Tracking System (CHITS), an electronic medical records system developed by the University of the Philippines.

The expansion of the WAH project also includes province-wide pilot testing of the Mobile Midwife and SPASMS (Synchronised Patient Alert via SMS) applications. Mobile Midwife enables data to be captured electronically during patient visits via portable devices and instantly sends patient data to the CHITS system. SPASMS is an automated alert and health promotions system that sends patients information related to important health milestones, eg. for prenatal care and child immunisation.

### **Mobiles and the Environment**

Globe Telecom is joining forces with an NGO to help in monitoring and meeting the target of planting 1.5 billion trees under the National Greening Program (NGP), through the use of mobile technology. The Foundation for Philippine Environment (FPE) will use mobiles to enable the quick registration of seedlings and payment between the Department of Environment and Natural Resources and participating organisations.

“Monitoring and evaluation of the whole effort will be enabled through Globe donations of mobile phones, Globe Bridging Communities SIM cards with special discounted rates, and the provision of a P5,000-monthly Text Connect facility for efficient and real-time monitoring of production, planning and maintenance progress,” according to Roberto Nazal, Globe CSR head (Philippine Star: <http://bit.ly/Lg4ps2>). Globe will donate mobile phones and SIM cards to 380 indigenous people organisations and NGOs in 51 provinces and 168 municipalities and cities engaged by FPE for NGP.

### **Wired and Wireless Kids**

Filipino children have notable influence on the purchasing patterns of their guardians, according to the New Generations 2012 survey. In terms of access to gadgets, the Internet and related technology, Filipino children are ahead of their peers in more developed countries in Asia-Pacific, according to the survey (Philippine Daily Inquirer: <http://bit.ly/Lg6btc>). The study was based on face-to-face, in-home interviews with 1,000 randomly selected children from Metro Manila, Metro Cebu and Metro Davao, across socio-economic classes A, B, C and D.

Two-thirds of children (aged 7 to 14) in the Philippines own a mobile phone, which is more than their counterparts in Australia and Taiwan. There also has been a 71-percent leap in Philippine ownership levels since 2009. Current ownership levels are at 65 percent, which positions the next generation of Filipinos as one of the most connected in the whole of the Asia-Pacific.

More than half of the children surveyed from urban centres across the Philippines now live in Internet-enabled homes, which is a 66-percent jump since the last time the study was conducted three years ago. Those that do not have Internet at home gain access outside, eg. in Internet cafes. Filipino children are also adept at switching between screens and devices. Over a third (38 percent) watch TV on a flat-panel screen; 54 percent have access to a digital camera; and 20 percent have a smartphone within reach. The latest gadget to break into the market since the last study is the tablet and, already, 16 percent of homes have one.

82 percent of Filipino kids living in homes with a computer go online every week. Gaming is the top Internet pastime with 58 percent of Internet users playing games daily. Growing quickly in popularity are social networking sites, with 52 percent of kids surveyed logging on every day.



## **Startup Weekend**

Startup Weekend (<http://startupweekend.org>), a global network of business leaders and entrepreneurs (“Launch a Startup in 54 Hours!”), has held two events in Manila and one in Cebu. TechTalks (founded by Tina Amper) recently partnered with Globe, Kickstart, Philippine Development Foundation (PhilDev), Developers Connect, Exist/Morphlabs, and the Department of Science and Technology to bring the Startup Weekend event to Cebu (Sun Star: <http://bit.ly/Mx7P61>).

Winners include Startup team WaitKnowMore, whose mobile application sends notification to a user when it is nearly his or her turn in a queue; Luto.co, an android application that would help foodies save pantry resources; Codetoki, whose application aims to assist IT students land a job; and Team Commute.ph, with its web and mobile geolocator, which aims to alleviate traffic problems in the Philippines.

## **Mobile Awards**

SHINE or Secured Health Information Network and Exchange, the flagship Health program of Smart Communications, was shortlisted at the LTE Awards 2012 under the Most Significant Development for Commercial LTE Network by an Operator category. SHINE enables doctors, nurses, and midwives to record patient encounters, easily find and retrieve patient records, remind patients and healthcare providers, facilitate referrals among facilities, and more efficiently generate government required reports. It is a hosted electronic health information and referral system accessible by a Java-capable phone or online computer (Sun Star: <http://bit.ly/MyfmFK>).

SHINE is now being used in public primary, secondary, and tertiary care facilities in Central Philippines and National Capital Region. It is used for a wide range of health conditions and supports many health services such as those associated with pre-natal, post-partum, immunisation, family planning, sick children, tuberculosis, trauma and a range of chronic conditions. SHINE also received the Best Community Telecom Project at the 15th Telecom Asia Awards, and was nominated at the 17th Global Mobile Awards of the GSM Association under the Best Mobile Health Innovation category.

## Singapore

Singapore has cemented its role as a leader in urban Internet and mobile, and is a major regional hub for mobile events, venture capital firms, incubators, and multinational corporations. A range of mobile services in areas such as education, entertainment and healthcare have been launched in Singapore, such as MOH iHealth, NLB Library In Your Pocket, RazorTV, MeRadio iPad, StartHub Mobile TV, DBS m-Banking, and Standard Chartered Bank (Breeze). Mobile commerce startups and offerings such as Yooze, Perx, Reebonz, LobangClub, and Deal.com.sg have also emerged, as well as participatory journalism via iToday.

**Table 6: Singapore Mobile Market 2012**

	JAN	FEB	MAR
<b>Mobile Market</b>			
Total Mobile Subscriptions(2G+3G) <sup>2</sup>	7,750,700	7,720,500	7,794,300
Total Post-paid Subscriptions (2G)	198,700	193,700	189,600
Total Pre-paid Subscriptions (2G)	1,764,500	1,726,700	1,687,300
Total Post-paid Subscriptions (3G) <sup>3</sup>	3,842,300	3,852,400	3,877,800
Total Pre-paid Subscriptions (3G) <sup>3</sup>	1,945,200	1,947,700	2,039,600
Total SMS Messages (2G+3G) <sup>4</sup> [Figures updated on a quarterly basis]	-	-	2,207,003,100
Total Ported Subscriptions <sup>5</sup>	9,300	7,900	8,000
Mobile Population Penetration Rate <sup>6</sup>	149.5%	148.9%	150.4%

Source: IDA <http://www.ida.gov.sg/Publications/20120402113400.aspx>

### Spotlight: SingTel

Singapore Telecommunications (SingTel), Southeast Asia's largest telco, closed out 31 March 2012 with a group total of 445 million mobile subscribers. In its home market the carrier reported a base of 3.58 million users. SingTel says the strong growth in contract users was driven by increased demand for smartphones and data SIMs for integrated mobile broadband bundles (Telegeography: <http://bit.ly/N18ByA>).

The group's Indian affiliate Bharti Airtel, in which it has an effective roughly 32% stake, reported a total mobile user base of 241 million as at 31 March 2012. Airtel also has significant interests in Bangladesh, Sri Lanka and Africa. SingTel's Indonesia affiliate Telkomsel closed out the first quarter of the year with almost 110 million mobile connections, while Optus in Australia has a total of 9.49 million. Elsewhere, AIS (Thailand) closed out the first quarter with 34.14 million mobile users, Globe Telecom (Philippines) had 31.03 million (27.32 million), Warid (Pakistan) had 14.40 million (17.81 million) and PBTCL (Bangladesh) had 1.79 million connections.

SingTel is eyeing more opportunities in the mobile advertising space, especially that for feature phones in developing markets (ZDnet Asia: <http://bit.ly/MxjB13>). SingTel's acquisitions include AdJitsu, a Silicon Valley startup that provides tools to make three-dimensional animated ads in mobile apps for iPhone and iPads. Amobee -- also a mobile advertising company -- was acquired earlier for US\$321 million. Currently only about 5 percent of global advertising revenue goes to the mobile segment, but this is

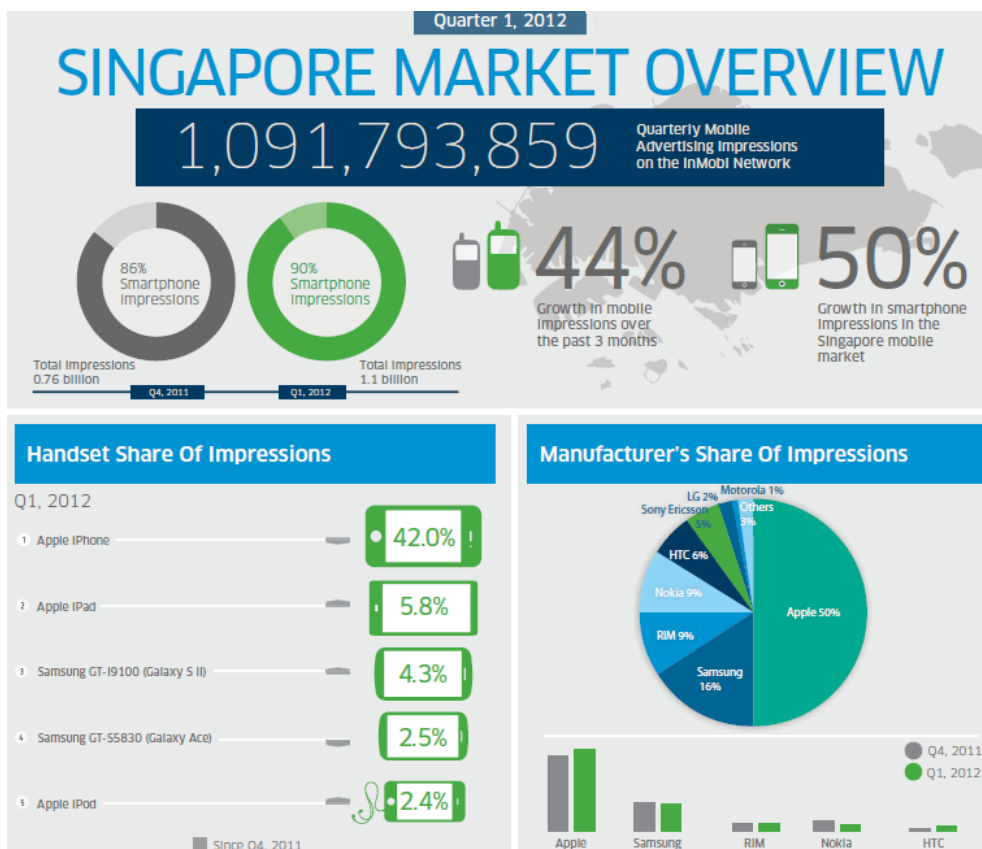


expected to grow supported by developing markets, according to Allen Lew, country chief office for Singapore at SingTel. In many emerging markets, the only way advertisers have access to consumers is through mobile phones rather than other forms such as TV.

SingTel is also reportedly looking to potentially acquire non-phone businesses in China and India, in a move away from slow-growth markets in Singapore and Australia. SingTel needs to find new ways to monetise as the traditional carrier business begins to lose its dominance, according to industry analysts. SingTel’s Digital Life unit also aims to focus on long-term strategic plans to deliver distinctive global products.

SingTel launched the Xpress portal for its fibre offering in Singapore about a year ago to consolidate and personalise local and global information for its subscribers. Amdocs was the prime technology partner for this project.

**Figure 5: Singapore Mobile Infographic**



Source: InMobi

### Smartphone Chips

After a number of setbacks in 2011, the regional semiconductor industry is starting to look up. The industry's wafer fabrication capacity is expected to grow by 11 per cent in Southeast Asia in 2012. This is more than double that of the global capacity growth rate of five per cent.

"Smart phones by far grew the largest. Smart phones grew by over 60 per cent in 2011, as a component of mobile phones, which went up by 11 per cent. So this consumes more and more silicon," according to Siltronic Samsung Wafer president & CEO David Wilhoit (Channel News Asia: <http://bit.ly/Obti80>). The

long-term trend is continued growth as the semiconductor markets are driven by the plethora of electronic applications, smart phones, tablets and other consumer products.

Singapore has increasingly become the destination of choice for the Asian headquarters and manufacturing sites of many global semi-conductor makers. Freescale, Infineon, Micron, ST Microelectronics and Siltronic-Samsung Wafer have a presence in Singapore. Currently Singapore has 14 wafer fabs, 20 assembly and test operations, and hosts three of the world's top five assembly and test subcontractor companies. The Southeast Asia region also leads the world in the semi-conductor packaging materials market.

## **Mobile + Media**

“The Straits Times has more QR codes than any printed publication you can buy in the US or Europe. Consumers are genuinely crying out for more interactivity, whether that is more information or a photo reel, and the QR code is a cheap and simple way to provide that,” says Stewart Hunter, Somo’s VP Business Development, APAC.

“Star Hub is one of the most integrated media companies in the world so it is not a surprise that it was the first in the region to create a fully interactive, and really quite addictive, TV campaign (with Sparky the dog as hero). 100 plus’ ‘Outdo the Day Everyday’ has also captured the public imagination in Singapore. The use of QR codes to augment traditional media within MRT stations and social media to attract people to capture moments of their lives with smartphone video cameras has been done to great effect. It brings engagement with their product to a whole new level,” adds Hunter.

In one respect, Singapore is ahead in mobile activating media as 3G is available on their underground public transport system; this is something that policymakers in the US and UK are wising up to, according to Hunter. SMRT, the Singaporean Metropolitan Rapid Transport Corporation, partnered with Paypal to sell the redundant display space in underground stations as interactive advertising to save commuters time by letting them shop on the go.

The campaign has been in operation since April this year and is evolving to become more ambitious virtual shopping displays. The results speak for themselves; a 5% conversion rate from scan to purchase, which is a significantly higher level of engagement than traditional direct response campaigns.

## **Mobile Commerce**

The PayPal Online and Mobile Shopping Insights report 2011 has found that Singapore's mobile commerce market grew by 660 percent, from S\$43 million (US\$34 million) in 2010 to S\$328 million (US\$259.4 million) in 2011. The most amount of money was spent on fashion and accessories at around S\$63 million (US\$49.8 million) in total, followed by movie tickets at S\$48 million (US\$37.9 million), and books at S\$37 million (US\$29.3 million). The next most popular categories were apps, food and groceries.

Most of the shopping was done from home, with 4 in 10 people doing so. The next most common place was the office, followed by mobile shopping while commuting. Mobile commerce had comprised 23 percent of online shopping in 2011, nearly six times its share of the online shopping market in 2010 (6 percent). The number of mobile shoppers also rose. They had constituted 48 percent of all online shoppers in 2011, as compared to 29 percent in 2010. 880,792 Singaporeans had made a purchase through a mobile device in 2011, an increase of 141.7 percent from 364,390 in 2010.

Mobile commerce in Singapore is set to grow ten-fold to S\$3.1 billion (US\$2.4B) in three years' time. Mobile optimised sites should be the basic strategy for online merchants to reach out to customers,



before building mobile applications, according to Rahul Shinghal, director of mobile at PayPal Asia-Pacific (ZDnet Asia: <http://bit.ly/LHTnvg>).

"Last year was a blockbuster year for mobile commerce in Singapore. Consumers now have a store in their pockets. It is a portable point-of-sale for retailers, who clearly need to adapt to the more challenging demands of customers," according to Elias Ghanem, managing director of PayPal South-east Asia and India (AsiaOne: <http://bit.ly/KVJuvP>).

Online shoppers in Singapore prefer using mobiles to make purchases. Smartphones constituted about 75 per cent of total mobile-commerce market and rang in \$244 million in sales. In contrast, tablets brought in \$82 million. However, tablet users tend to spend more. The average amount each shopper spent via tablets was \$380, higher than the \$274 spent via smartphones.

## Mobile Ecosystem

The Singapore government itself is a notable driver and market for the IT industry. The government plans to call S\$1.2 billion worth of public sector infocomm tenders for the current financial year as it pushes for more collaboration in areas such as learning management systems, data analytics and e-services (TodayOnline: <http://bit.ly/LHNka8>).

"The biggest source of data for companies in Singapore is the government. If the government is willing to share the data with businesses to improve the solutions, it will be very good for the overall industry," according to Frost & Sullivan senior consultant Abhineet Kaul. Government data ranges from non-personalised data like traffic or bus timings (perfect for delivery to mobiles) or personalised data like travel and tax information.

Singapore's Media Development Authority (MDA) has launched the Futurescape testbed program to establish the whole nation as a testbed for Interactive Digital Media (IDM) experiments, where projects can testbed and scale up quickly to meet the demands of the fast changing market (<http://www.idm.sg>). The scope of IDM initiatives can be categorised into three broad areas:

**Born-Digital:** This refers to digital media that do not have an analogue equivalent, e.g. Internet, games, mobile content and services.

**Going-Digital:** This encompasses traditional media and involves the transformation of the content and the way in which traditional media is transmitted. These media include TV, radio, film, video, publishing and music.

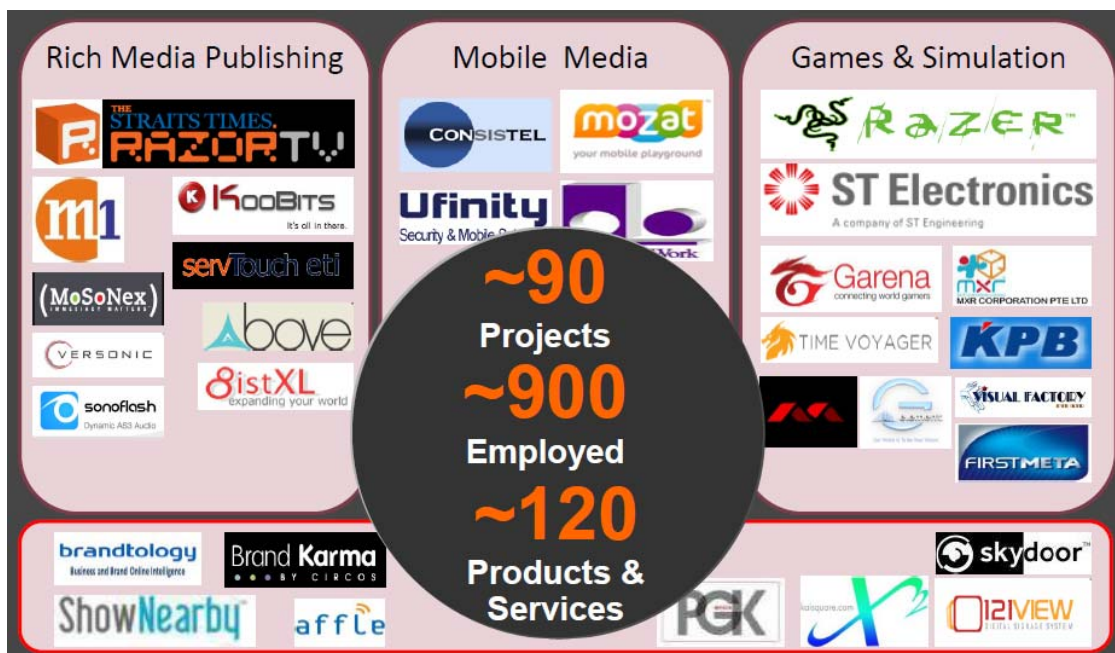
**Embedded:** This refers to digital media that is being used in industries that are not traditionally associated with IDM. Industries that can potentially be transformed by IDM include industrial design, medicine, healthcare and education.

The market for mobile content and services was estimated at \$150 billion in 2011, compared with \$89 billion in 2010. Of this, \$13.6 billion is expected to come from user-generated content. Singapore's IDM programme is investing in R&D to identify new ways of reaching and interacting with mobile-connected people so as to latch onto the growth of this market. Areas of focus include: ambient intelligence, human-computer interaction, immersive environments, location-aware computing, mobile computing, personalisation, and pervasive/ubiquitous computing.

Datasets are being created for 3D Models of Singapore, shopping, traffic, and hospitals, as part of testbeds for media, health, digital learning and mobile. MDA and partners are aiming at an increased value-added contribution of S\$10 billion in 2015 (from S\$4.2 billion in 2005) and creating 10,000 new jobs by 2015. Founding members of the FutureMobile Partner Network include SingTel, Nokia, Apple, Mozat and Friendster.



**Figure 6: Singapore’s FutureScape IDM Initiative**



Source: MDA

Singapore earlier found itself struggling to establish a vibrant start-up scene – despite a large number of highly educated techies. Its efforts were criticised by the likes of Apple co-founder Steve Wozniak, who labelled it “too structured” to produce creative talent, despite millions of dollars available in government funding for start-ups (Wall Street Journal: <http://on.wsj.com/Klruvr>).

Still, if there were one place in southeast Asia where a start-up can look for funding and contacts, it is Singapore, according to John Fearon, CEO of startup DropMyEmail. Entrepreneurs do not need millions to start an Internet company in Singapore, and still benefit from Silicon Valley connections.

According to research company TNS, Singapore has the third highest smartphones penetration rate in the world. “Leveraging on this trend, Singtel launched the SingTel Idea Factory, which adopts an open innovation model to work with partners to build and launch apps for SingTel. The team researches and travels extensively across the world to look for technology partners to develop cutting edge technologies. What this results in is better and more innovative apps for consumer and business users,” says Erwann Thomassain, Head of Marketing, APAC, Amdocs. Some of the apps available include Go! Shopping (information and discounts for more than 50 malls in Singapore), Price Pal (comparison shopping app), and Road Track (for business subscribers to monitor overseas mobile usage of data, calls, SMS).

MobileMonday Singapore’s Loh MunYew identifies Tagit, B-Secure Technologies, Omnitooons, Playmoolah and Quantum Inventions as notable mobile startups in Singapore. The country’s talented manpower, sophisticated ICT adoption, and strong government support are its key strengths, despite the small market size. He recommends that the industry and government work together to establish strong go-to-market channels with global mobile players.

## Thailand

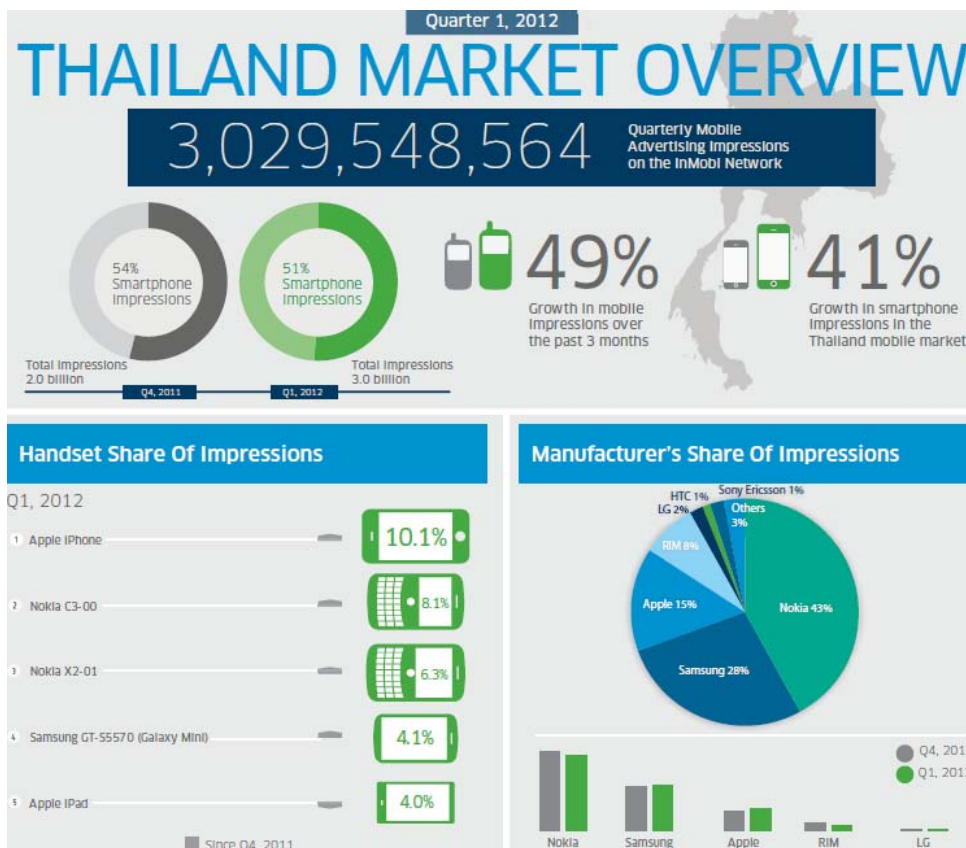
IDC's forecast is for Thailand's information and technology market to reach US\$16.8 billion in 2012. IDC expects mobile data to become the key growth factor for Thailand's telecom services in 2012, expanding by 15.5% year-on-year to reach \$968 million in 2012. Growth will mainly be driven by multimedia services such as mobile web browsing, mobile Internet, VDO streaming, and e-mail. Thailand's smartphone and tablet market will gain traction in both consumer and enterprise markets from 2012 onward, according to IDC research.

### Recovering from the 2011 Floods

Although severely affected by the floods in October and November 2011, demand for mobile phones sprung up again after the situation improved. The demand for entry-level smartphones in the fourth quarter helped spur the total mobile phone market in 2011 to an annual growth of 19 percent, according to Jarit Sidhu, associate market analyst for client devices research at IDC Thailand (ZDnet Asia: <http://bit.ly/LJOHXG>).

The quarter also marked the first time smartphone shipments exceeded one million units in a single quarter in Thailand. In 2011, the smartphone market grew 200 percent compared with 2010, while the feature phone market grew 10 percent year-on-year. IDC expects the momentum to continue in the coming years as improvements in devices and wider coverage of 3G services will stimulate further demand for smartphones. Looking forward, IDC said smartphone shipment to grow more than 50 percent in 2012 while feature phone shipments were expected to grow only at a single-digit percentage rate.

**Figure 7: Thailand Mobile Infographic**



Source: InMobi



The 2011 floods slowed growth for most electronic product categories in the country, but tablets had a 75 percent incremental sales volume in the first quarter of this year compared to the previous year, hitting over US\$50 million, according to GfK Thailand. The sales volume of tablets was "testament that the Thais are truly avid technology enthusiasts." according to Wichit Purepong, general manager of GfK Thailand (ZDnet Asia: <http://bit.ly/KWcZ0H>.)

Although there was disruption in production resulting from the shutdown of hundreds of factories including international electronic firms that use Thailand as a regional production hub, the flood is not predicted to have a strong bearing on technology spend on a global and regional level, according to GfK Thailand.

### **Mobile Internet**

Thailand had 25.09 million Internet users in 2011, up 26.77 per cent from 19.79 million in 2010. Most of the traffic was seen in entertainment websites or blogs, games, and personal as well as news websites. In April 2011, about 400,000 people accessed the Net via their mobile phones, which rose to more than a million a day in April 2012. The iOS mobile platform dominates the market with 77 per cent usage thanks to the iPad and iPhone. The other top mobile operating systems are Android, Symbian and Blackberry.

"In Thailand, up to 54 per cent of Internet users are men and 45 per cent are women. Also, up to 40 per cent of them are below the age of 17. Though the number of Internet users has risen by more than 20 per cent, traffic to Thai-language websites has not increased that much," according to Piya Tanthanwichian, chief technology officer of Internet Innovation Research Centre, as well as founder and operator of Truehits.net (The Nation: <http://bit.ly/LL7y0B>).

Studies show that surfing the Net via search engines is likely to drop as link-referrals increase. As per Truehits.net Web Award 2011, the top ten Thai websites are Sanook, mThai, Kapook, Dek-D, Manager, Exteen, Teenee, Truelife, Thairath and Siamspport. But just one-third of the Thai population has online access, as compared with 80-90% in other Asian countries like Japan and South Korea.

### **Mobile Consumer Behaviours**

The time per day Thais spend on mobile devices has now surpassed TV viewing and traditional Internet use, according to a mobile media survey by InMobi (Bangkok Post: <http://bit.ly/Ii7giK>). Social media and entertainment are driving mobile growth in Thailand.

On average, mobile web users in Thailand spend 6.6 hours daily. Of this time, mobile devices represent 27% compared to 26% people spent online via desktops and laptops and 25% on TV. 44% of mobile web users in Thailand say mobile devices are their preferred method of going online. Some 57% of mobile web users play with their devices while watching TV, 46% while lying in bed, 39% while commuting, and 23% while waiting for something. Mobile web users spend 22% of their time on social media like Facebook and Twitter, 20% on music or videos, 17% on gaming, 13% searching for general information like news, and 10% on shopping.

The survey also found that 7% of users have been influenced by mobile advertising when making in-store purchases, and 9% have been influenced to buy via their mobiles. "We see continued growth in mobile usage in Thailand in the coming year, with social media growing 46%, entertainment 38%, email 23%, searches 23% and mobile banking 23%," according to Phalgun Raju, regional director and general manager for Southeast Asia, Hong Kong and Taiwan at InMobi.



## Tablets for Education

The Thai government has announced a deal for what has been touted as the widest tablet deployment to date. The government has agreed to purchase 400,000 tablets from Shenzen Scope at a unit price of \$81 that brings the grand total up to \$32.8 million. The Scopad SP0712 will ship with a 7-inch screen, 1GB of RAM, GPS, 8GB of storage and Android's operating system, Ice Cream Sandwich.

It is also reported that the Thai government might be interested in buying another 530,000 tablets of the same Chinese manufacturer; that would notch the total up to \$75.7 million (Digital Trends: <http://bit.ly/KJGy6a>). Thailand reportedly also looked at some of China's largest tablet manufacturers, such as Lenovo and Huawei, but the pricing per unit was too high for its budget. The \$32.8 million One Tablet PC Per Child campaign (1.02 billion Thai Baht) is the world's largest education tablet distribution deal to date. Comparatively, the largest education tablet distribution program in the US was 25,700 iPad units set for deployment to students of the San Diego Unified School District in California, at a cost of \$15 million.

## AR and Tourism

The Tourism Authority of Thailand (TAT) is promoting Thai tourism on digital platforms and mobile apps. 'The New Amazing Thailand' mobile application and a new game 'Thailand Racing by Smile Land' for Nokia smartphones have been launched (Travel News: <http://bit.ly/Lgj4DI>).

The highlights of 'The New Amazing Thailand' mobile app are an Augmented Reality (AR) feature that allows travellers to instantly access details and information of things and places around them. The QR code scanning capability offers tourists an ability to get travel info quickly. The Interactive Map provides tourists with travelling routes to a number of interesting destinations. The game 'Thailand Racing by Smile Land' presents Thailand's attractions by using them as racing scenes that are brought from the settings in the Smile Land game on Facebook.

## Global Apps, Local Developers

The ecosystem of mobile apps is opening the doors for Thai developers to find a niche in the global market in a short time. Thailand's largest local mobile operator, Advanced Info Service (AIS), has launched a project called "AIS The Start Up" ([www.ais.co.th/thestartup](http://www.ais.co.th/thestartup)) to encourage developers to be partners of AIS. The company's direction is to expand the partnership with developers through three models of assistance - joint marketing, joint development, and joint venture, according to AIS vice president of value-added service, Prathana Leelapanang (The Nation: <http://bit.ly/LMSVrM>).

Currently, AIS has about 250 to 300 local content and service providers, and aims to target thousands of developers as well. In alliance with SingTel Group, AIS can not only offer more than 30 million AIS subscribers in the Thai market, but it can also offer developers the potential market of 412 million subscribers of SingTel. AIS kicked off "AIS Start Up Weekend" in 2011. Five new software companies with potential products for the market emerged: Chatterbox, ShopSpot, LikeMe, GotIt, and Flowz.

**Chatterbox** is a mobile application that bridges content providers and broadcasters with their audiences, with the purpose of creating an augmented channel for entertainment and user-engagement.

**ShopSpot** is a mobile application enabling consumer-to-consumer mobile commerce. It is designed to facilitate quick sales by individuals through three instant steps: snap-tag-post.

**LikeMe** helps shoppers "get most liked privileges from the brand the love, and have fun with friends like them", according to Thanachot Wisuttismarn, CEO and co-founder. The revenue is designed to stream from partnerships with brands that can offer their privileges through the app.



**GoiIT** is a mobile application developed for serving brand loyalty. C-founder Chotirot Ourattharakul said it helps businesses in Thailand with loyalty programs on their mobiles. Apps and QR codes scans at the shop help collect points for loyalty rewards.

**Flowz** is a mobile app designed to deliver new privilege experience and fun activities to users and enable businesses to create a public relations channel via customary royalty programme. The target is customers aged between 18-40 using social networks and smartphones (iOS, Android).

### **Mobiles for Social Change**

Assumption University's Bangna Campus and the US State Department teamed up in March 2012 to offer TechCamp to over 50 of Thailand's civil society organisations (ZDnet Asia: <http://bit.ly/N0cjbM>).

TechCamp (<http://techcampglobal.org>) is an interactive seminar aimed at connecting leaders in the tech community to people in civil society organisations such as charities, NGOs and social enterprises.

The event featured seminars about online fund-raising, data mapping, and use of mobile technology for response to emergencies. Topics discussed at the Bangkok event included using SMS for participatory education and intervention for trafficking, m-learning, mobile data collection during disasters, mobile citizen journalism, overcoming the digital divide, crowdsourcing, mobile donations, and digital activism.

### **The Road Ahead: Regulation and Policy**

Thailand's mobile market should be fully liberalised to end a profit-maximising monopoly dominated by the three operators, according to the Thailand Development Research Institute (TDRI). The three big players - Advanced Info Service, Total Access Communication and True Move - have controlled the 200-billion-baht market for too long, according to TDRI research director Deunden Nikomborirak (Bangkok Post: <http://bit.ly/LIUc7c>).

The 3G licence auction for the 2100-megahertz frequency coming up in October is no guarantee that newcomers will join the bidding. The Foreign Business Act (FBA) caps foreign holdings in Thai telecom firms at 49%. "The existing telecom regulations of the National Broadcasting and Telecommunications Commission (NBTC) have failed to encourage foreign investors to jump into the market. The industry should be liberalised to free up the market," according to Deunden. TDRI also suggests that NBTC accelerate plans for sharing telecom infrastructure and cellular towers, so as to attract foreign participation in the auction.

As for spectrum, many industry experts believe that in the near future 4G will be launched worldwide in the 1800-MHz band. Thailand currently has 75 MHz of 1800-MHz spectrum allocated. In 2013, 25MHz or one-third of this spectrum comes out of concession and goes back to the NBTC for auction. To give mobile operators and their customers adequate time to plan, it is recommended that the auction take place later this year, well ahead of the expiry of the concessions. This means that Thailand would be in a position to launch both 3G and 4G under licence within 2013, leapfrogging its Southeast Asian neighbours, according to Jon Eddy Abdullah, CEO of Total Access Communications (Bangkok Post: <http://bit.ly/LdzfjA>).

## Vietnam

Regarded by many as the New Asian Tiger, Vietnam's 88+ million population boasts of a large and young workforce and increasing prosperity. The country has set itself ambitious targets for the ICT industry, and despite tight media controls where social media sites such as Twitter are blocked, there is a thriving Internet and mobile economy.

**Table 7: Vietnam's 10-Year ICT Masterplan Targets**

	2010-2015	2016-2020
Total investments	US\$8.5 bln	
	US\$3.2 bln	US\$5.3 bln
Ranking list of the International Telecommunication Union	70	60
ICT industry contributions to the country's GDP	17-20%	20-30%
Coverage of broadband Internet services to communes and wards nationwide, fibre optic cables radio and TV broadcast technologies in five big cities	70%	90%
Nationwide households telephone coverage	100%	100%
Households with computers and access to broadband Internet services	20-30%	70-80%
Households with TV sets	90%	100%
Complete building of ICT infrastructure	Urban Areas	Village Areas
Software outsourcing destinations and digital content producers	Top 20	Top 10

Source: *The Vietnam Nation*

People in Vietnam love their mobile phones even more than their TVs and PCs, which bodes well for the mobile ad networks in Vietnam. According to a network data and media consumption survey in Vietnam conducted by mobile ad network InMobi, the mobile ad market grew 121% in Q4 2011 over the same period in 2010. The ad network served over 6 billion ad impressions in Vietnam in Q4 2011 as opposed to 2.75 billion impressions in Q4 2010 (Digital Market Asia: <http://bit.ly/LI8hlm>).

"Mobile's role in the consumer purchase cycle continues to grow. Our survey found that three-quarters of mobile web users in Vietnam have been influenced by mobile advertising when making purchases. 77 percent of consumers expect to conduct mobile commerce in the next 12 months – a 36 percent increase from today," according to Phalgun Raju, regional director at InMobi.

Interestingly, more people use feature phones rather than smartphones. The InMobi study showed that the market is still largely driven by advanced phone impressions at 5.6 billion as opposed to smartphone impressions at 0.4 billion. Nearly three-quarters of local mobile web users say the mobile device is their preferred method of going online, because it gives them more privacy and is easy to use.

Mobile advertising is already an accepted fact for the mobile users in Vietnam. 35 percent have been introduced to something new via mobile advertising, 39 percent have received better options, 22 percent have found something relevant nearby, while 14 percent reconsidered a product based on a mobile ad. In terms of devices, Nokia is still the leading phone in the market. It has a 59.2 percent market share, with



Samsung at 20.5 percent market share, followed by LG with 5.9 percent. Apple devices are in the sixth place with 1.8 percent market share.

**Figure 8: Vietnam Mobile Infographic**



Source: InMobi

## IV. Mobile Innovation

Southeast Asia is now home to a number of innovation networks, accelerator programmes, incubation facilities, competitions and awards for mobile startups. These include the MobileMonday network in the six key Southeast Asian countries, Startup Saturday, Clearbridge Accelerator, NUS Entrepreneurship Centre, NTU Ventures and JFDI Bootcamps (see Table 8).

“The world is hot on innovations in both the corporate world as well as in public services. The downside of innovation is that true innovation disrupts existing operational models, physical products or intangibles like services. For this reason, existing international organisations have a challenge to support such innovative activity as they are mostly mandated to represent current actors and operational models,” according to Jari Tammisto, CEO of MobileMonday.

**Table 8: Investor / Incubator Dynamics for Mobile Startups in Southeast Asia**

Country	Active VCs / Investors	University-supported incubator / accelerator initiatives	Government support / schemes for startups
Indonesia	Merah Putih Inc., Eastventures, IdeoSource, Batavia Incubator, Nusantara Ventures, GDP Ventures, et c.	ITB & RIM (Blackberry) Initiatives	None
Malaysia	Cradle Fund	MMU	MSC Malaysia ICON2
Singapore	ExStream Ventures, Innosight Ventures, Singtel Innov8, Neoteny Labs, SVCA	NUS Entrepreneurship Centre, Clearbridge Accelerator, JFDI.asia	NRF Technology Incubation Scheme, Spring SEEDS, Numerous grant programs from the Media Development Authority (MDA), IDA Call for Proposal and Call for Collaboration programs
Vietnam	IDG Ventures Vietnam	TOPICA	IPP and Ministry of Science and Technology (MOST)

The mobile market is well covered in the regional mainstream media (eg. Bangkok Post), tech publications (eg. ZDnet Asia), and blogs (eg. e27.sg, SGEntrepreneurs.com). e27’s annual Echelon event draws a range of speakers from the tech and investment sector around the world. The 2012 edition, for instance, features speakers from Jungle Ventures, Startup Sauna, Right Click Capital, Stickery, Kiip, Pivotal Labs, Cubie Messenger, Beaver Lake Capital, Mindtalk, Intel Indonesia, AppWorks, Brandtology, Mission Street Media, iGlobe Partners, Open Network Lab, Girls in Tech, SingTel Innov8, Catcha Group, Venture Education, Google, Innosight, Greencloud Labs, Amazon Web Services and McCann Worldgroup.

**Table 9: Mobile Startups in Southeast Asia**

Country	Startup	Description	Success in the market so far	Key challenges faced in scaling up
Indonesia	1. M-Saku	Credit card authentication via mobile	Not revealed	No clear regulation on payment
	2. Mindtalk	Twitter -like service	Not revealed	Competition with global players
	3. Touch Ten Games	iOS/Android game makers	Millions of downloads for Hachiko games	Marketing
	4. KARK Games	Mobile education platform	Not launched yet	Limited smartphone penetration
	5. RUMA.co.id	Social enterprise	40K agents in rural villages	Market education
Malaysia	1. Groupsmore (groupon.com.my)	Discount vouchers	Bought over by Groupon	Low smartphone penetration
	2. muzic.my App	New revenue model for local artistes	Firmware installed on every Samsung SMART TV & Samsung mobiles	Telco percentage share still high
Singapore	1. mig33	Mig33 is a popular social networking and social gaming community in emerging markets with more than 50m registered users.	Indonesia is the largest market with more than half of the registered users coming from that market.	The product was built for featurephone users, but emerging markets may quickly switch to feature phones in the coming years.
	2. Teamie	Teamie harnesses the power of social networking to make learning fun, collaborative and engaging. Teamie create a safe & secure network for teachers and students to interact and learn.	Winner at the Singpaore Startup Arena hosted by Tech in Asia.	Online learning has recently become a very hot and crowded space.
	3. BubbleMotion	Bubbly, the company's new app, is a voice micro-blogging service.	Selected as a finalist at the Global Mobile Awards Summit in 2011 for Best Mobile Technology for Emerging Markets.	The company started as a value added service provider making its service available via a mobile operator. It's making the transition from VAS provider to app developer and direct to consumer.
	4. The Mobile Gamer	Developer of mobile social games for mig33 and Kotagames	3 million users, 300,000 monthly active users.	Monetisation in a region in which the large social game companies find challenging
Vietnam	1. Naiscorp	Mobile Portal/Mobile SNS	19 million downloads	SEA expansion
	2. SharePlus	Android App Market for Vietnam	Thousands apps uploaded	Google's moves in Google Play.
	3. Afoli	Mobile Apps outsourcing developer	Tens of apps has been developed	Margin will be lower and lower, big HR management.
	4. Biaki	Mobile ERP	Tens of companies used	Find the common issues to solve between different companies. Need to do lots of customisations.

Source: MobileMonday chapter founders/organisers



The JFDI–Innov8 2012 Bootcamp is dubbed the first digital startup business accelerator in Southeast Asia to apply an investment model that created such companies as Dropbox, AirBnB and Reddit. It is organised by JFDI.Asia and sponsored by SingTel Innov8, a syndicate of angel investors and two Singapore government agencies, MDA and SPRING Singapore (TechWire Asia: <http://bit.ly/KslrPc>). Startup Weekend events have been held in Singapore, Jakarta, Manila, Melbourne, Delhi and Bangkok.

Featured startups in Southeast Asia bootcamps include: ShopSpot (e-commerce mobile app), Qryo (document sharing service), Remember (family time capsule), Tradegecko (supply chain portal), FamilyKo (tele-parenting app), Trafflers (app for social leisure travellers), Fetch Plus (Facebook and Twitter page builder), Kark Mobile Education (card app for children), Flocations (travel visualise app), Wildby (talking encyclopedia app) and TribeHired (social recruitment platform).

Mobile startups are regularly tracked by MobileMonday chapters in Southeast Asia. For instance, Mobile startups identified in Thailand include Ensogo.com (social company deal site), Agoda.com (hotel booking engine), MyColorScreen.com (homescreen sharing site), LearnThai (app for learning Thai and other languages) and Thai keyboard (Thai keyboard app). Other notable mobile startups in Indonesia, Malaysia, Singapore and Vietnam are described in Table 9.

### Innovation Networks

According to Larry Huston, managing partner of consulting firm 4INNO, future competitive advantage will depend on "innovation networks" -- individuals and organisations outside a company that can help it solve problems and find new ideas for creating growth ([Knowledge@Wharton](mailto:Knowledge@Wharton): <http://bit.ly/KZ8C3F>).

**Figure 9: Collaborative Innovation Networks**

	<b>COIN (Innovation)</b>	<b>CLN (Learning)</b>	<b>CIN (Interest)</b>	<b>Project Team</b>	<b>Business Unit</b>
<b>People</b>	Collaborate on vision	Share knowledge in community	Learn from community	Collaborate task	Do same task individually
<b>Technology</b>	Innovation workspace	Knowledge repository	Bulletin board	Shared workspace	Information exchange
<b>Leadership</b>	Gurus	Experts	Elders	Project Manager	Senior Manager
<b>Activity</b>	innovate	collaborate	communicate	contribute	participate

Source: ICKN <http://www.ickn.org/innovation.html>

Peter Gloor, research Scientist at MIT Sloan's Centre for Collective Intelligence, defines the term "collaborative innovation network" (COIN) as "a cyberteam of self-motivated people with a collective vision, enabled by the Web to collaborate in achieving a common goal by sharing ideas, information, and work" (<http://www.ickn.org>). Members of a COIN collaborate and share knowledge directly with each other, rather than through hierarchies. They come together with a shared vision because they are intrinsically motivated to do so and seek to collaborate in some way to advance an idea. COINs form from the interaction of like-minded, self-motivated individuals who share the same vision. These individuals

typically bring a broad range of skills and expertise to the COIN and are not necessarily related in terms of the corporate hierarchy.

Robert Rycroft, of the Elliott School of International Affairs of George Washington University, defines the concept of "Self-Organising Innovation Network" organised around constant learning. Globalisation and technology are driving more of these networks and collaboration between them (George Washington University: <http://bit.ly/LezpqQ>).

Author and consultant Verna Allee has used Value Network Analysis to assess large-scale networks and intellectual capital formation at the level of networks and regions (<http://bit.ly/KXpw3V>). Other researchers have also addressed regional innovation networks in areas such as Silicon Valley.

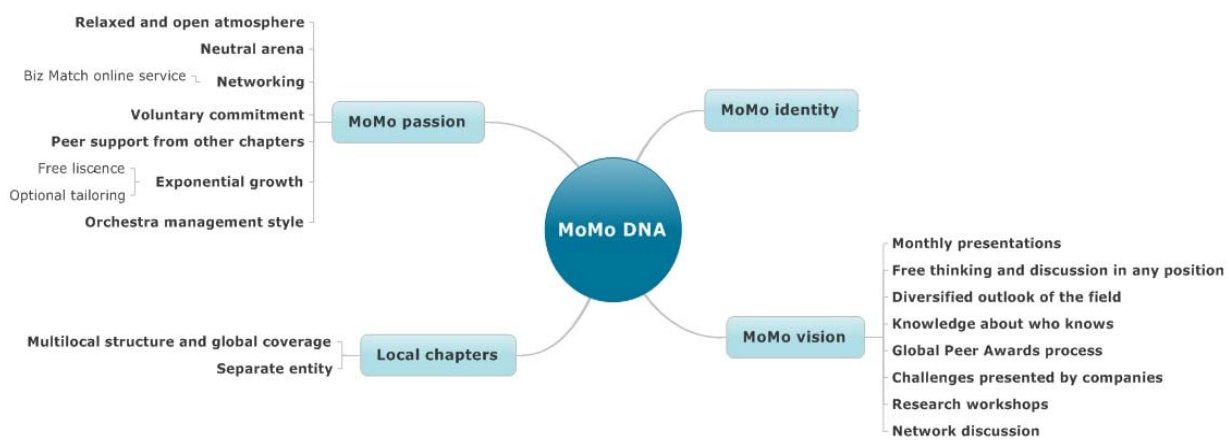
For instance, David Rosenberg, author of "Cloning Silicon Valley: The Next Generation High-Tech Hotspots," identifies the key ingredients that have made California's Silicon Valley so successful as a technology cluster with national and global impact. Rosenberg applies this analysis to cover major technology hotspots of the world: Cambridge in England, Helsinki in Finland, Tel Aviv in Israel, Bangalore in India, Singapore, and the HsinChu-Taipei belt in Taiwan. For instance, Singapore's strength is in opening its economy to retain outsiders so that its achievements reflect as much, if not more so, the talents and abilities of foreigners as Singaporeans, according to Rosenberg.

Other emerging models include Open Innovation Networks (based on combining external capabilities with internal innovation resources of organisations), Open Communities for Innovation, as well as crowdsourced innovation, crowdfunding, and diaspora innovation networks.

### The Mobile Monday Model

The global race is thus underway for companies, industries and countries to win the innovation game. A number of models and frameworks have been proposed for corporate innovation, but only a few are addressing the global as well as local nature of innovators around the planet. The successful MobileMonday model of networked innovation communities around the world offers a unique model of 21st century ecosystems, which demonstrates valuable experiences ready to be shared across other sectors as well.

**Figure 10: MobileMonday Innovation Ecosystem**



A number of books have been published about global innovation; most of this literature largely addresses how a global company should tap the wealth of knowledge outside its own corporate boundaries via a

combination of outsourcing, venture capital investments, intrapreneurship, innomediaries, and engagement with entrepreneurs in India and China.

The MobileMonday model, however, is radically different from these models. MobileMonday (or “MoMo” for short) shows how regular periodic rhythms can be created for developers and innovator communities via a network of face-to-face monthly meetings in cities around the world, and collaborative tools for online networking and business development. This brings tighter integration of best practices with tacit and explicit knowledge exchanged on a global scale.

The mechanics of design, governance, participation and co-petition within each MoMo chapter city is a fascinating and working testbed of innovator meetups. Success factors include varied event formats, community building, peer-review mechanisms, and international awards. Some creative global, regional and national players have successfully tapped this grassroots community, via investments, alliances and acquisitions.

The mutually agreed and shared core values of the MobileMonday community are volunteerism, orchestrated leadership, hub focus and trusted peer relationships at the local, regional and global level. All MobileMonday chapters are founded and operated by mobile industry volunteers who are passionate to support the local holistic development needs. A typical chapter has 3-5 individuals in the role of founders or organisers with different backgrounds. 5-10 supporting local advisors find the most relevant event topics and formats, presenters, and sponsors; reach out to universities, developers, venture capitalists, public and private sector influencers; and communicate with all relevant individuals locally and abroad.

A typical Monday evening event has 150 attendees (low of 25, high of 800). Annual Global Summits and regional meetings contribute to regional and global community building and showcase of developments from all parts of the world. MobileMonday is built on the belief that innovative and sustainable development is based on personal trusted peer relationships that encourage knowledge share. This can best be encouraged by regular physical meetings in organically formed hubs. MobileMonday chapters relate mostly to a suburb or city rather than a whole country. Currently there are some 140 MobileMonday chapters in 80+ countries, with new chapters launched on a weekly basis. The most recent and upcoming chapters are in Ho Chi Minh City (Vietnam), Baku (Azerbaijan), Astana (Kazakhstan), Las Vegas (US), Athens (Greece), Timisoara (Romania), and Addis Ababa (Ethiopia).

MoMo is moving from benchmarking into ‘benchlearning’ and from competition into collaborative development. One internationally successful local start-up can spark success in an entire cluster of companies, and innovative ideas can become global phenomena even before an actual company is formed. MobileMonday has sparked hundreds of these success stories and continues to do so at an ever-faster pace and reach.

### **MobileMonday in Southeast Asia**

MobileMonday has been active in Southeast Asia since 2006, with chapters in the capital cities of the six key mobile markets: Jakarta, Kuala Lumpur, Manila, Singapore, Bangkok and Hanoi. All chapters use social media heavily to promote and share information about their events. Regionally, the chapter founders try to meet regularly at events such as Communicasia (Singapore) and GoMobile (Malaysia), as well as other global conferences such as the Mobile World Congress in Barcelona. Table 10 provides snapshots and statistics of the MobileMonday chapters in Southeast Asia.



**Table 10: MoMo Chapter Snapshots in Southeast Asia**

Country / City	Year of founding	URL, Twitter name, Facebook page	Founders / Organisers	Average attendee size at events	Members in database
Indonesia / Jakarta	2007	<a href="http://www.mobilemonday.co.id">www.mobilemonday.co.id</a> <a href="http://www.facebook.com/idmomo">http://www.facebook.com/idmomo</a> <a href="http://www.twitter.com/idmomo">www.twitter.com/idmomo</a>	Founders: Andy Zain Andreas Surya Organisers: Sadina Kasman Sandi Oktandy	150 - 200	3,000 +
Malaysia / Kuala Lumpur	2006	<a href="http://www.mobilemonday.com.my">www.mobilemonday.com.my</a> <a href="http://www.facebook.com/momomalaysia">www.facebook.com/momomalaysia</a> <a href="http://www.twitter.com/momomalaysia">www.twitter.com/momomalaysia</a>	Past: RamG Current: Janny Paul	70	500
Philippines / Manila	2011	<a href="http://www.momomanila.org">www.momomanila.org</a> <a href="http://www.facebook.com/MoMoManila">http://www.facebook.com/MoMoManila</a> <a href="http://twitter.com/#!/momomanila">twitter.com/#!/momomanila</a>	Charo Nuguid Leigh Reyes Manny Nepomuceno Christian Besler	90	500
Singapore	2005	<a href="https://www.facebook.com/groups/momosingapore/">https://www.facebook.com/groups/momosingapore/</a>	Chris Chandler Loh Mun Yew Heikki Leskinen Arpit Agarwal	150 participants	1,200
Thailand / Bangkok	2011 (relaunch)	<a href="http://momobkk.com">http://momobkk.com</a> <a href="http://www.twitter.com/momobangkok">www.twitter.com/momobangkok</a> <a href="http://www.facebook.com/momobangkok">http://www.facebook.com/momobangkok</a>	Ville Kulmala (current) Callum, Marc (past)	250 participants	1,000+
Vietnam / Hanoi	2011	<a href="http://www.facebook.com/groups/MobileModay/">http://www.facebook.com/groups/MobileModay/</a>	Nguyễn Xuân Tài Phạm Minh Tuấn Lê Quang Anh	150-250	1,500

Attendees at MobileMonday events in Southeast Asia have appreciated the open speaking opportunity (for local startups), a chance to get a pulse of local innovation (telcos, vendors), a sounding board for ideas and possibilities (for innovators), research material and trends (for academia), multistakeholder partnerships (for government agencies), potential deals (for investors), recruitment opportunities (for headhunters and HR professionals), and good news leads (for journalists).

Topics at the monthly meetups vary (ranging from content and services to management and investment), as well as the formats (panel discussions, demos, pitches). Accordingly, the venues and sponsors also change, as depicted in Table 11. Moving ahead, some MobileMonday chapters are planning to launch a print magazine, host quarterly workshops, organise more debates, and even launch chapter-specific mobile apps.

**Table 11: MobileMonday Chapter Activities in Southeast Asia**

<b>Chapter</b>	<b>Themes / topics discussed in last 10 meetups</b>	<b>Companies who have spoken in the last 10 meetups</b>	<b>Companies who have been sponsors of the last 10 meetups</b>
Indonesia	Mobile in Enterprise, Apps, Mobile Commerce, M2M, Rural Apps, Mobile Internet, Payment and Commerce, Mobile Ad/Marketing, Mobile Video, App Showcase	RIM, Ad-Ins, Pravina, Tagit, NetQin, Remko's Forum, Touch Ten, mig33, Frost & Sullivan, Telkomsel, IndoMog, SWIFF, Payfone, Ericsson Indonesia, Telkomsel, CPN, RUMA, 8Villages, MicroAid, BPR KS, Tencent International, Scoop, MNC Group, Multiply Inc, TokoPedia, Dokupay, IDS, BuzzCity, MicroAd Indonesia, 7Langit, VuClip, Nokia Siemens Networks, Dotus Indonesia, Elastis Multi Kreasi, Seatech Infosys	RIM, Tencent International, Telkomsel
Malaysia	Cloud Communication, End Of The Line For Telco?, Can Parallel Lines Meet?, Mobile World Congress, Mobile Advertising, Mobile Application Dev	Nest, MV Technology, DMD Mobile, Manipal International University, Buzz City, Zertopia	GTower Hotel (Official Monthly Venue Sponsor), MDeC , Manipal International University
Philippines	Mobile trends, Monetisation, Mobile Internet, Mobile Gaming, Mobile Payments, Mobile Startups, Future of Mobile Innovation	Lowee Philippines, Globe Telecom, Ayala Foundation, World Food Programme, Blackberry, Microsoft, Yahoo Philippines, GMA New Media, International Gaming Development Association, Smart Communications, Chikka, NumLock Solutions, Out There Media	AC Corporation, Philippine Star, Blackberry, Microsoft, BBDO Guerrero, Proximity Philippines, CodeFlux, Hit Productions, Lowee Philippines, Out There Media, Chikka, Novare, NumLock Solutions, Exist
Singapore	Mobile Advertising, Android, Mobile Security, Location Based Services, App Stores, Cloud Computing	Pointpal, Yoose, Lobang Club, Fitness Buffet, Taggo, Unilever, P&G, OgilvyOne, Google, The Coca-Cola Company, HTC, InMobi, Navteq, GetJar, MetraTech Corp., M1	InternetQ, HTC, SingTel, Nokia, InMobi, Navteq, GetJar, MetraTech, M1, Dialogic, Microsoft, AdMob
Thailand	Always three topics: startup, technology, business	Nokia, Blackberry, Tarad (Rakuten), Huawei, Pagemodo,	Blackberry, Nokia

## V. The Road Ahead

Although 3G has become a mature technology in many developed economies, it is currently driving the mobile broadband uptake in many emerging markets such as those of Southeast Asia. High technology maturity and decreasing costs for both operators and consumers are boosting emerging 3G markets. Mobile broadband technology is being widely supported by government in a bid to bridge the mobile divide between emerging and developed countries. Visiongain estimates that 3G service revenues in emerging markets will reach \$74.5 billion in 2012 (Visiongain: <http://bit.ly/KirtBH>).

Furthermore, improvements in telecommunication services provide a strong economic stimulus to emerging markets, thereby furthering national development. The greater availability of mobile broadband networks will also offer significant opportunities for the development of mobile applications and services, such as mobile commerce and health, among others.

However, it should be emphasised that the feature phone will still be relevant, and in the next five years it will become an even more essential device in handset manufacturers portfolios (Visiongain: <http://bit.ly/Mw1BHO>). Over 70% of handsets shipped in 2011 were feature phones, and as emerging economies come to fruition, the popularity of these devices will remain stable. Two main segments of feature phones will come to prominence in under-developed markets, the low cost and ultra low cost handsets. New market entrants and the advent of Android have combined to create cheaper than ever smartphones. These devices and ecosystem players are poised to gain significant market share in areas where subscriber penetration rates remain low.

The popularity of social networks is also strongly influencing consumer behaviour, and mobile service providers are responding by offering enhanced messaging applications. New messaging tools propose more intimate communication platforms, emulating a new class of social company with mobility in mind from the start (Visiongain: <http://bit.ly/Mwrt2f>). Messaging applications based on location and group functions are gaining ground and users are beginning to expect mobile messaging platforms to be tailored to their particular needs.

In parallel to the development of high-end messaging platforms, traditional applications such as SMS and MMS are expanding their reach and being employed in new ways. SMS provides a simple and cost-effective alternative where mobile broadband is not available or the cost of smart devices is prohibitive. This has prompted a growth in mobile services that leverage the universal nature of SMS.

Emerging markets such as Southeast Asia are fostering strong markets in mobile payments and remittance services, which are opening up new revenue streams for operators. This is resulting in increased trust in messaging services and driving other industries such as mobile commerce, health and government. The Asia Pacific, African and Middle Eastern markets are showing particularly strong growth in value added services which leverage the mobile messaging platform. SMS traffic in those three regions accounted for almost 50% of total global SMS traffic in 2011.

“We see Southeast Asia as one of the most interesting and diverse markets globally. There are already lots of opportunities for innovation and collaboration, and it will almost certainly grow to become the largest market for mobile advertising. Relatively, it is still in its infancy. One of the catalysts to mature the advertising market will be the adoption of agreed standards for ad formats, ad-serving, tracking and measurement,” says Stewart Hunter, Somo’s VP Business Development, APAC.

Many Southeast Asians have skipped desktop computing and are real mobile believers. “As early as 2010, Google committed to a mobile-first vision, and we believe that a large portion of mobile users in Southeast Asia are already experiencing the world in this paradigm. Google could well see its vision first realised here,” observes Hunter.



“Mobile is the next big mass media. It has overtaken traditional mass penetration already in many countries, and will continue to outstrip it,” says Rolly Pane, Head of Digital Strategy & Innovation at D3 (Dentsu Digital Division) in Jakarta.

"Mobile marketing is money. Nowhere will mobile grow faster than as a compendium media type, as a combination of mobile plus TV, mobile plus out-of-the-home. It is only natural for Southeast Asian consumers: most spend an irregularly high amount of time on their mobile devices and for some, mobile is the only medium they will see, other than stale billboards," says Zia Zaman, CEO of Beaver Lake Capital.

“Governments across Asia are coming to grips with mobile, putting in place legislation to protect citizens (similar to the MMA’s code of conduct which already mandates ethical behaviour for its members). Other government initiatives include integrating mobile into social causes,” says Rohit Dadwal, Managing Director, Mobile Marketing Association Asia Pacific. “We believe that the great strength of this region lies in its diversity and that helps the growth of innovation with a purpose across the various aspects of human life,” adds Dadwal.

In sum, across the length and breadth of the mobile ecosystem, innovation will be needed in incremental as well as disruptive modes. Sustainable innovation capacity for a country and company requires open models of networking. Knowledge in such an innovation community is often highly tacit, individual-bound, and dispersed. It may not be known what kind of knowledge different actors possess, what kind of knowledge is needed in innovation processes, and what kind of value may be generated as a result. The community in which innovation emerges may be even more vague and fuzzy. Still, that is the strength of open innovation networks in complex and chaotic environments, according to MobileMonday CEO Jari Tammisto.

MobileMonday’s local, regional, and global reach provides it with an opportunity to bring the world’s most talented individuals together for hackathons, meet-ups, or camps to innovate something locally, regionally and globally relevant. During 2012 and 2013 MobileMonday plans to invite its global chapters to experience the dynamic development in Southeast Asia during special events like GoMobile and CommunicAsia as well as MobileMonday Summits and Camps. This program connects local developers with peers from all over and speeds up the knowledge transfer in the global arena. MobileMonday is now the largest regional community organising and participating in events about mobile, and joins a range of other event and awards organisers as described in Table 12.

**Table 12: Mobile Events and Awards in Southeast Asia**

<b>Country</b>	<b>Conferences featuring mobiles</b>	<b>Mobile event organisers</b>	<b>Awards featuring mobiles</b>	<b>Sample mobile awards winners</b>
Indonesia	Startup in Asia - Jakarta, IDBytes	Kibar Kreasi, SX Networks	NAICTA Awards, SparxUp	Aibilities
Malaysia	Go Mobile www.gomobile.my	LTTcom	Frost & Sullivan Excellence Awards, Go Mobile Awards, MSC APICTA Awards	Endeavor Mobile, m2u Mobile Payment, Augmented Reality Muslim Toolkit, SecQ.me
Philippines	Mobile Bayani Awards	BigAPC	Boomerang Awards (IMMAP), Kidlat Awards (kidlatawards.com)	Chikka, International Rice Research Institute (IRRI), Jay Quiambao (Metro Traffic app)
Singapore	CommunicAsia, ad:tech, MMA Asia-Pacific	Terrapin	National Infocomm Awards	Clearhub, ePhone, Tagit

## List of Abbreviations and Acronyms

<b>ADSL</b>	Asymmetric Data Subscriber Line
<b>BOP</b>	Bottom of Pyramid
<b>CD-ROM</b>	Compact disk, read-only memory
<b>CLC</b>	Community Learning Centre
<b>CSO</b>	Civil Society Organisation
<b>EDI</b>	Electronic Data Interchange
<b>GIS</b>	Geographical Information System
<b>GSM</b>	Global System for Mobile communications
<b>HDI</b>	Human Development Index
<b>HDR</b>	Human Development Report
<b>HTML</b>	Hyper Text Mark-up Language
<b>HTTP</b>	Hyper Text Transfer Protocol
<b>ICT</b>	Information and Communication Technologies
<b>ICT4D</b>	ICT for Development
<b>ISP</b>	Internet Service Provider
<b>IT</b>	Information Technology
<b>ITeS</b>	IT-enabled Services
<b>LAN</b>	Local Area Network
<b>MDGs</b>	Millennium Development Goals
<b>NGO</b>	Non-governmental Organisation
<b>NRI</b>	Network Readiness Index
<b>PCO</b>	Public Call Office
<b>PDA</b>	Personal Digital Assistant
<b>PoP</b>	Point of Presence
<b>SME</b>	Small and Medium Scale Enterprise
<b>SMME</b>	Small, Medium and Micro Enterprises
<b>SMS</b>	Short Message Service
<b>VoIP</b>	Voice over Internet Protocol
<b>VSAT</b>	Very Small Aperture Terminal
<b>WANs</b>	Wide Area Networks
<b>WLL</b>	Wireless in Local Loop

## Chronology of MobileMonday: Founding of City Chapters

Year	City
2000	Helsinki
2004	Tokyo, Silicon Valley, Milan, Rome
2005	Austin, Beijing, London, Los Angeles, Paris, Singapore, Sydney, Adelaide, Chicago, New York, Seattle
2006	Bangalore, Bangkok, Boston, Chennai, Dublin, Dusseldorf, Geneva, Hong Kong, Istanbul, Kuala Lumpur, Melbourne, Mumbai, Munich, New Delhi, St. Petersburg, Stockholm, Vancouver, Washington DC, Shanghai, Barcelona, Madrid, Copenhagen, Toronto
2007	Adelaide, Amsterdam, Brussels, Caracas, Dallas, Estonia, Frankfurt, Hyderabad, Jakarta, Philadelphia, Seoul, Kiev, Marseilles
2008	Belfast, Berlin, Bogotá, Brisbane, Budapest, Casablanca, Hamburg, Lithuania, Oslo, Zurich, Geneva, Taipei, Tel Aviv, Warsaw, Lisbon, Buenos Aires, Hanoi, Montreal, Sao Paulo, Tallinn, Vilnius, Moscow
2009	Vienna, Johannesburg, Malmo, Malta, Capetown, Portland, Philadelphia, Miami, Bucharest, Riga, Oulu, Boulder, Calgary, Medellin, Mexico City, Rio de Janeiro, Slovenija, Sofia
2010	Kampala, Nairobi, Brooklyn, Orlando, Tampa, Dar es Salam, Palestine, Colombo, Columbus, Pasadena, Karlskrona
2011	Accra, Ann Arbor, Astana, Athens, Baku, Cairo, Chisinau, Dakar, Detroit, Dubai, Hanoi, Indore, Lagos, Las Vegas, Madison, Manchester, Manila, Milwaukee, Ottawa, Pasadena, Perth, Porto Alegre, Skopne, Tampere, Timisoara
2012	Trivandrum, Lansing, Inland Empire, GuanZhou, Addis Ababa, Beirut, Bologna, Ludhiana, Birmingham, Lusaka, Mauritius, Medellin, Minsk, Split

### MobileMonday Reports

Region	MobileMonday Reports
Africa	Opportunities and Roadmaps for Africa (2009), Rise of the Creative Economy (2010), Regional Hubs of Excellence and Innovation (2011), Sustainable Innovation Ecosystems (2012)
Southeast Asia	Crossroads of Innovation (2012)
South Asia	Innovation for Inclusion (2012)

## MobileMonday Team in Southeast Asia

Chapter	Founder/Organiser
Jakarta	Andy Zain is a technopreneur with 15 years of experience in building Internet and mobile business in South East Asia. Pioneering the mobile VAS business, he launched the first content provider and ringtone service in Indonesia and helped in establishing services for top global brands across mobile/Internet industry, including Disney, Yahoo!, EA, Gameloft, and FIFA. Andy has worked with fast growing tech startups such as mig33, Vuclip, and KotaGames.com in their entry strategy. He is the founder and organiser of MobileMonday Indonesia, whose members include 400 mobile centric companies in Indonesia. He is director of Jakarta Founder Institute, a mentorship and incubation program for startups in Indonesia.
Kuala Lumpur	Janny Paul is the organiser of MobileMonday Kuala Lumpur.
Manila	<p>Charo Nuguid has been a tech geek since she first started programming at the tender age of eight. She's currently a consultant and trainer specializing in Java and Android technologies and is also a founder of the Philippine Android Community. As such, she has been regularly invited to give talks on anything Android. Before all that she was a baker, an amateur photographer specializing in product and nude(!) subjects, and an assistant to an FHM photographer. She also writes for a local gadget blog. Her current obsession is with NFC technologies.</p> <p>Twitter: @rcdiugun            Web: <a href="http://thegeekettespeaketh.com">http://thegeekettespeaketh.com</a></p> <p>Christian Besler is an evangelist of disruptive innovations and believes that only an open mobile ecosystem will be able to constantly reinvent itself, and only innovative companies will have a sustainable competitive advantage.</p> <p>Twitter: @christianbesler</p>
Singapore	<p>Chris Chandler is the co-founder of Mobile Monday Singapore, one of the longest running MoMo chapters which has been in existence for almost seven years. Outside of MoMo, Chris is a co-founder of ASEANiX, a firm that assists US &amp; European consumer Internet and mobile companies enter the Asian market. He was previously VP of Business Development at mig33, a mobile social networking service with more than 50 million users across emerging markets. Chris is originally from the US, but has been living in Asia for the past decade. He holds a BBA from Georgia State University.</p> <p>Twitter: @ctchan  <a href="http://www.chrischandler.com/">http://www.chrischandler.com/</a></p> <p>Loh Mun Yew is the Manager for Enterprise Infocomm team within the Industry Development Group of IDA focused on developing enterprise mobility strategies to help create and establish a thriving and innovative enterprise mobility ecosystem. He has over 13 years experience in the telecommunications and IT industry. He is also the co-founder of</p>

	<p>MobileMonday Singapore. Prior to that, Mr Loh worked in StarHub under the Global IP Backbone Business, International Division. Loh Mun Yew holds a Bachelor of Engineering from the University of Aberdeen and a Professional Diploma in Asia Pacific Marketing from National University of Singapore/Marketing Institute of Singapore.</p>
Bangkok	<p>Ville Kulmala is a Director at Mobile Spark, an Amsterdam based mobile agency with offices in Finland and Hong Kong. Mobile Spark delivers measurable word-of-mouth social media marketing (WOMM) through integrated digital channels such as Facebook. Ville has over 10 years of consulting experience, working directly with companies such as Nokia, Accenture, Heineken, ING, Logica, ABN AMRO, Areva and Fortis. He is currently the Chairman for Mobile Monday Thailand, and is the organizer of two popular mobile and startup conferences in Southeast Asia.</p> <p>Twitter: @villekulmala  Personal business: <a href="http://mobile-spark.com">http://mobile-spark.com</a></p>
Hanoi	<p>Nguyen Xuan Tai is CEO of Naiscorp Information Technology Service Joint-stock company. He graduated from Hanoi University of Technology in 2006. The company has received investments from IDG and Softbank China &amp; India Holdings in 2006 and 2008. He has received numerous awards for his work in Vietnamese language search technology. His successful projects include building databases and search tools for the Vietnam Government Portal.</p>

## **About the Author**

Dr. Madanmohan Rao ([madan@techsparks.com](mailto:madan@techsparks.com); <http://twitter.com/MadanRao>) is research projects director for MobileMonday. He produces the annual reports Mobile Africa, Mobile Southeast Asia and Mobile South Asia. He is an author and new-media consultant from Bangalore, and editor of five book series: The Asia Pacific Internet Handbook, The Knowledge Management Chronicles, AfricaDotEdu, World of Proverbs, and Global Citizen. He is co-founder of the Bangalore K-Community, a network of knowledge management professionals (<http://kcommunity.ning.com>).

Madan was formerly the communications director at the United Nations Inter Press Service bureau in New York, vice president at IndiaWorld Communications in Bombay, and research director at the Asian Media Information and Communication Centre (AMIC) in Singapore. He graduated from the Indian Institute of Technology at Bombay and the University of Massachusetts at Amherst, with an M.S. in computer science and a Ph.D. in communications.

Madan is a frequent speaker on the international conference circuit, and has given talks and lectures in over 80 countries around the world. He has chaired and spoken at a number of telecom events ranging from the WiMax Forum to VoIP Asia. Madan was on the nominating committee of ICANN (International Corporation for Assigned Names and Numbers). He is on the board of editors of the journal Electronic Markets and the Journal of Community Informatics, and was on the board of the journal Convergence. Madan is also an editor and DJ for world music and jazz, and writes for World Music Central and Jazzuality.





[www.mobilemonday.net](http://www.mobilemonday.net)