Making waves: Southeast Asia series Spotlight: The Philippines

Stake of the telco industry in Southeast Asia Focus: Philippines

August 2012





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PREAMBLE

"Making waves" is a new telco publication series on the Southeast Asia region. This is a PwC SEAPEN Region¹ led initiative. It aims to provide overviews of the emerging telco markets in this region as well as insights on the challenges and opportunities faced. We hope readers will find this a valuable read.

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Foreword

As the global economic axis shifts to Asia, highly populated and emerging Asian economies continue to be attractive destinations for global and regional telecommunications (telco) operators seeking new sources of growth.

The Asian telco sector is going through rapid transformation, making it one of the most watched markets in the world today. A combination of trends such as strong economic and population growth, rising consumer demand and market-responsive regulatory changes, are driving investments and innovations in the Asian emerging markets.

In this publication, we take a close look at the Philippines, a highly populated emerging market and explore the state of its telco industry. Ranked no.1 as the preferred business process outsourcing (BPO) location ahead of India, the Philippines offers attractive long term prospects for investors. The Philippines' low economic base and large pool of young population provide a strong expanding consumer base. The market is rapidly evolving, characterised by high competitiveness, user-centric business models, and continuous advances in technology.

Similar to its neighbouring Asian telco markets, the highly price-sensitive market is expected to shift from voice to 3G and mobile broadband, focused on postpaid services driven by the growing demand for social media and multimedia content.

We hope 'Making Waves: The Philippines' provides useful insights for your next strategic investment decision.

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Global and regional telco overview

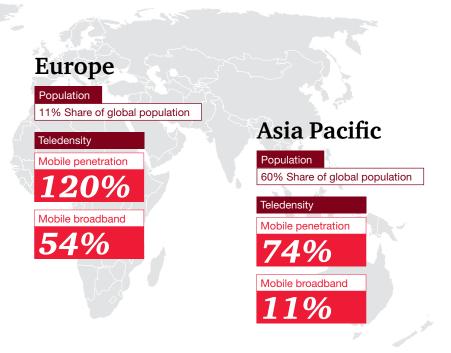
Global telco market

Over this decade, global mobile subscription is forecast to increase at a CAGR¹ of 5.6%, reaching 9.7 billion subscribers in 2020.

Global telco growth to be led by Asia, which accounts for close to two-thirds of the world's population. With Asia Pacific's relatively low teledensity rate for mobile phone and mobile broadband, there is significant room for telco market growth.

Chart 1: Global telco market - growth led by Asia

The Americas Population 13% Share of global population Teledensity Mobile penetration 103% Mobile broadband 31%



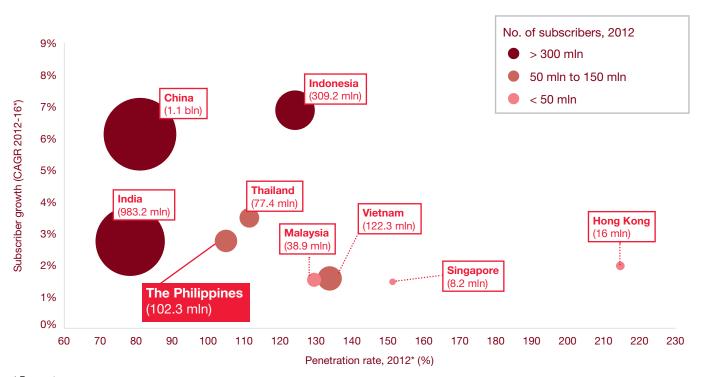
¹Compounded annual growth rate

Source: Population Reference Bureau, July 2011; International Telecommunication Union, November 2011, UMTS Forum, January 2011

Asia's telco market

Mobile subscriber growth in most Asian countries is expected to slow as the market matures, especially in urban areas. Key growth markets in Asia over the next five years are Indonesia and China.

Chart 2: Asia's mobile market - growth led by China and Indonesia



* Forecast

Source: BMI, Q2 2012 and PwC Analysis

Asia has a mixture of telco markets, some more advanced and developed than others, with ARPU¹ ranging from US\$56 to less than US\$2.

The huge gap in ARPU presents potential opportunities for developing markets to grow their telco services.

Chart 3: Comparative position of Asia's telco market

Regional rank	Country	Telco risk ratings 2012	Country	Mobile penetration 2012 ² (%)	Country	Mobile ARPU 2012 ² (US\$)	Country	Broadband penetration 2012 ² (%)
1	Japan	74.6	Hong Kong	222.0	Japan	56.00	Japan	189.5
2	Singapore	73.3	Singapore	154.9	Singapore	34.00	Singapore	106.4
3	Australia	70.1	Vietnam	136.3	South Korea	28.69	South Korea	53.9
5	Hong Kong	67.8	Australia	135.0	Hong Kong	23.33	Hong Kong	38.2
6	South Korea	66.3	Malaysia	132.0	Taiwan	22.28	Taiwan	32.8
7	Taiwan	63.9	Cambodia	130.0	Malaysia	13.20	Malaysia	31.9
8	Malaysia	61.7	Taiwan	128.2	China	10.52	China	22.3
9	Indonesia	57.1	Indonesia	126.3	Thailand	6.66	Thailand	14.1
10	China	56	South Korea	112.9	Vietnam	4.11	Vietnam	7.4
12	India	51.5	Japan	108.4	Philippines	3.25	Philippines	6.3
13	Pakistan	50	Philippines	106.1	Indonesia	3.07	Indonesia	5.0
14	Philippines	49.7	Thailand	105.1	Cambodia	3.00	Cambodia	4.1
16	Bangladesh	48.9	Sri Lanka	90.6	Sri Lanka	2.45	Sri Lanka	1.2
17	Vietnam	42.4	China	80.7	India	1.62	India	0.9

¹ Average Revenue Per User

Source: BMI, Q2 2012

² Forecast

Southeast Asia's telco markets

Most of emerging Southeast Asian countries have reached maturity stage with over 100% mobile penetration rate. The Philippines, Indonesia and Vietnam each has significant subscriber base of over 100 million.

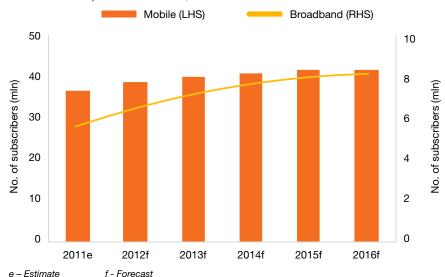
Chart 4: Southeast Asia's mobile telco market overview Legend Vietnam Subscriber base L 122.3 mln 136% Penetration rate No. of subscribers, 2012 Cambodia > 300 mln **1** 18.8 mln Laos -> 50 mln to 150 mln 130% ♣ 7.0 mln > 10 mln to 50 mln □ 109% Thailand \ **♣** 77.4 mln **□** 120% The Philippines **1** 102.3 mln Malaysia -106% **▲** 38.7 mln 132% Indonesia -🗘 309.2 mln 129%

Malaysia

Rapid broadband growth, triple-play growth

Chart 5: Malaysia mobile and broadband subscribers

2011-16 CAGR for mobile: 2.6%; and broadband: 7.5%



Opportunities

Source: BMI, Q2 2012

- Shift in demand from traditional voice services to data and media rich services
- Data hungry customers (smartphones and tablets users) to drive industry growth
- Growing household broadband penetration rate projected to rise to 65% in 2012
- Rapid broadband growth anticipated, led by HSBB and mobile broadband
- WiMAX licensing helping rapid growth of wireless broadband technologies
- Cost savings from network sharing agreements between mobile operators

Overview

- One of the most matured telco markets in the region, with mobile penetration rate of about 132% in 2012.
- Industry revenue to grow by 5.3% in 2012, driven by growth in HSBB¹ subscriptions.
- 3G smartphones or tablets with bundled data packages expected to surge as telco operators attempt to grow its revenue.
- 3G subscribers to grow at 3.6% CAGR to 13 million in five years, representing about one-third (31%) of the mobile market.
- Key players: Maxis, Celcom (owned by Axiata), Digi (controlled by Telenor) and Telekom Malaysia.

- Intense competition due to market saturation with mobile penetration at 132%
- Entry of new players and products such as YTL Communications Bhd's YES 4G, new foreign stakeholders in wireless and mobile operators, Green Packet Bhd and U Mobile Sdn Bhd, and increased presence of mobile virtual network operators (MVNOs)

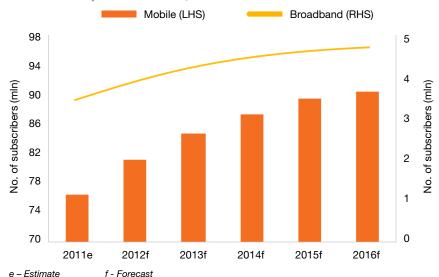
¹ High speed broadband

Thailand

Revitalisation of wireless services, strengthening regulations

Chart 6: Thailand mobile and broadband subscribers

2011-16 CAGR for mobile: 3.6%; and broadband: 7.1%



Opportunities

Source: BMI, Q2 2012

- Commercial 3G launch expected to help mobile operators increase revenue mobile services to provide contract from higher data usage and mobile broadband service
- · Collaboration with device manufacturers to drive data usage and acquire new customers
- Increase in popularity of non-voice opportunities for vendors
- Low smartphone segment adoption with huge potential for growth after rollout of 3G licensing
 - Potential growth in IPTV¹ services

Overview

- Mature and competitive telco market, with mobile penetration rate estimated to be at 119% in 2012.
- Operators face price pressures, dominated by prepaid sector.
- Operators focusing on smartphones and tablets to acquire and retain existing customers; stimulate data usage and service quality with launch of mobile number portability.
- 3G subscribers to grow by 35% CAGR in the next five years to 19 million.
- Telco players moving to converged model, e.g. providing combination of mobile and WiFi access.
- Key players: TrueMove, Advance Info Services and Total Access Communication (DTAC).

- · Highly competitive and mature mobile sector, with a penetration rate of more than 100% in 2012
- Fixed line sector is stagnant and usage levels declining
- Dominance of prepaid subscribers with low ARPU and high churn
- · Regulatory environment has not had a sustained period of consistent policies e.g. delay in issuing 3G and WiMAX licenses

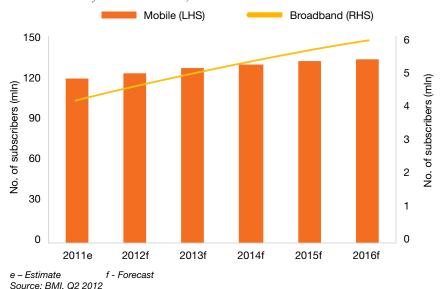
¹ Internet protocol television

Vietnam

Urban saturation, growth potential in broadband and rural market

Chart 7: Vietnam mobile and broadband subscribers

2011-16 CAGR for mobile: 2.4%; and broadband: 7.2%



Opportunities

- Rising income and cheaper phones and Untapped rural market with limited IT devices are making telco services more affordable
- · Data and media rich content from broadband, 3G and WiMAX services are expected to shape the sector in the coming years
- mobile and fixed line access
- Market liberalisation, non-network operators (including foreign players) can provide telco services through partnership with existing network operators

Overview

- Mature telco market especially in urban areas. However, with 70% of population in rural areas, there is still high growth potential in some untapped segments.
- Competitive market, facing price pressure, dominated by prepaid sector, with one of the lowest mobile ARPU in the region.
- Operators look to grow 3G and broadband subscribers. Subscriber base is above 8 million and growth is forecasted at 15% CAGR over the period 2012 to 2016.
- · Looking to grow 3G and broadband subscribers
- Key players: Viettel and Vietnam Posts and Telecommunications (VNPT). which owns VinaPhone and MobiFone.

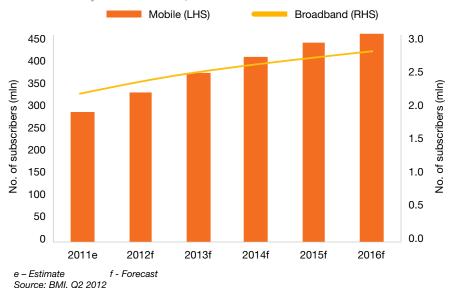
- Saturated mobile market, with a penetration rate of 136% in 2012 subscriber growth to slow to 2.4% p.a. over the next five years (2011-2016)
- · Price sensitive customers with low ARPU (US\$4 per month) due to low income level, with GDP per capita of US\$1,600 in 2012
- Competitive telco market with large number of players across all sub-sectors mobile, fixed line, internet, broadband and WiMAX

Indonesia

Large subscriber base, high broadband potential

Chart 8: Indonesia mobile and broadband subscribers

2012-16 CAGR for mobile: 9.9%; and broadband: 5.2%



Opportunities

- Price wars among operators may spur market consolidation
- Increased number of operators awarding contracts and WiMAX network deployments are expected to boost broadband demand
- Popularity of mobile value-added/ data services and growth of 3G telephony to provide investment opportunities
- $\bullet \,$ Licensing of VoIP 1 and IPTV services

Overview

- Market supported by eight mobile operators, with affordable tariff rates and large subscriber base.
- Mobile subscribers expected to grow at 9.9%, reaching 372 million in 2016.
- Competitive telco market, with expected mobile penetration rate of 129% in 2012.
- 3G services uptake is low at 7.7% of mobile market due to slow rollout of networks and high cost of subscriptions.
- Key players: PT Telekomunikasi Seluler (Telkomsel), Indosat (owned by Qatar Telecom), XL Axiata, Hutchison CP and Axis.

- Falling ARPU rate with mobile operators over emphasis on low-cost prepaid services and short-term price promotions
- Limited mobile spectrum due to overcrowding
- Government registration scheme reduced fixed-wireless and mobile users
- Government delayed the licensing of LTE²-based next generation mobile services

¹ Voice Over Internet Protocol (VOIP)

² Long Term Evolution (LTE)

Cambodia and Laos

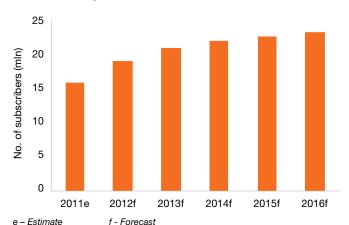
Low penetration, high growth potential

Cambodia overview

- Competitive mobile market, with nine operators and declining ARPU (US\$3 per month in 2012, expected to decline to US\$2.30 in 2016).
- Heavy dependence on prepaid subscribers.
- With increased affordability in smartphones, 3G subscriptions are expected to grow by 20% in the next five years.
- Attracting interest from foreign telco operators e.g. France Telecom and Indonesia's Telkom.
- Key players: Mobitel (CamGSM); Mfone (CAMSHIN); Hello (Axiata); Star Cell (Applifone) and QB (CADCOMMS).

Chart 9: Cambodia mobile subscribers

2011-16 CAGR for mobile: 7.8%



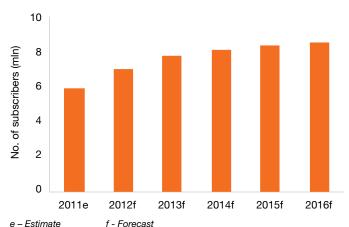
Source: BMI, Q2 2012

Laos overview

- Increase competition due to market expansion by foreign operator i.e. Vietnam's Viettel.
- Low and declining ARPU (US\$5 per month in 2012, expected to drop to US\$3.90 by 2016).
- Moderate mobile penetration rate of 92.3% in 2011, providing significant room for growth.
- 3G subscriber base to reach 5% of total mobile subscription in 2012, mainly by prepaid users. Subscriptions are expected to grow by 38% in the next five years.
- Smaller telco market potential, less than half the size of Cambodia population.
- Key players: Lao Telecom (Government of Lao); Unitel (LAT); Beeline (VimpelCom Lao) and ETL Mobile.

Chart 10: Laos mobile subscribers

2011-16 CAGR for mobile: 7.8%



e - Estimate

Source: BMI, Q2 2012

SpotlightThe Philippines

- Industry drivers
- Market overview
 - Mobile
 - Broadband
 - Fixed line
- Game changers
- Regulatory environment
- ICT

The Philippines

Often referred as the "Pearl of the Orient Seas", the Philippines is located in the Malay archipelago in Southeast Asia. It has:

- a large domestic market with 96 million people;
- a young population, more than half are under the age of 24; and
- a ready pool of talent of which 80% speak English.

Interestingly, the Philippines has over a hundred ethnic groups, with a mixture of foreign influences which have evolved into a unique Filipino culture. It has a rich history combining Asian, European and American influences.

The country's low economic base also offers ample opportunities for growth. According to HSBC's "The World in 2050" report, the Philippines is expected to leapfrog and become the 16th largest economy by 2050, with an expected average growth rate of 7% p.a. in the next 40 years.



To help unlock the Philippines' growth potential, the government has embarked on a series of measures to develop the economy. These measures include investing heavily in infrastructure and increasing foreign participation in key areas of the domestic economy.

2012 snapshot



Land area	300,179 sq km
Population	96 million
GDP	US\$254.4 billion
GDP per capita	US\$2,451
GDP growth	3.4%
Inflation	3.7%
Foreign direct investment (FDI)	US\$1 billion
Position	 9th in AT Kearney's Global Services Location Index 2011
	41st in Institute for Management Development (IMD) World Competitiveness Scoreboard 2011
	75th in World Economic Forum (WEF) World Competitiveness Ranking 2011-2012
	148th in World Bank's Ease of Doing Business 2011 report
Country credit risk rating	S&P: BB Moody's: Ba2

Telco market, 2012 estimates					
	No. subscribers (million)	Growth (2012-2016)	Penetration rate		
Mobile	102.3	3.5%	106%		
Fixed line	4.2	0.01%	4.4%		
Internet	8.0	12.7%	8.3%		
Broadband	7.1	9.6%	7.4%		

Source: Various sources

Industry drivers

Sound economic prospects

Stable economy with prudent management

Over the last decade, the Philippines' economy has been resilient, registering an average growth of 5% p.a. In line with the global economic slowdown, its economy is expected to grow at modest pace of 3.4% in 2012 and accelerate to 5.7% in 2016, fueled largely by private consumption.

Consumer price inflation is expected to average 4.6% per year between 2013 to 2016. During the same period, the Philippines is expected to have a current account surplus of around 3% of GDP.

The Philippines' key trade partners are largely in Asia, led by China/Hong Kong, Japan and Singapore. In 2011, total exports contracted by 6.9% due to the global financial crisis. Imports, however, grew by 9.5%, reflecting strong domestic consumption.

The government exercises prudent fiscal management, with a low budget deficit of just 2% of GDP relative to its peers.

Over the next two years, the government is targeting growth of 7% to 8% which will be driven by a combination of measures to increase public spending, investment and private consumption.

Strong private consumption

For telco operators, there is strong market potential with the Philippines' large and active domestic market. Private consumption accounts for more than 70% of the economy (GDP). This is expected to increase further, with the government targeting GDP growth of 7% to 8% p.a. over the next five years (2011 to 2016). GDP per capita is expected to rise to US\$4,000, and move to be on par with regional peers.

Private consumption is also buoyed from substantial inflows of remittances from overseas workers to a tune of PHP848 billion (US\$20 billion) p.a.. As a result of significant remittances, the current account will remain in surplus into 2016, at 3.1% of GDP on average over the forecast period.

Further, a booming Business Process Outsourcing (BPO) industry, growing at 20% p.a., driven by the wide availability of English-speaking talent, is driving private consumption.

Promising FDI prospects

The Philippines is fast becoming a preferred choice for investments given its centralised location in Asia, availability of a trainable workforce and the country's general openness to foreigners.

In 2011, FDI inflows came to about PHP53.5 billion (US\$1.3 billion), mostly contributed by Japan, the Netherlands, South Korea, United States and China. Top sectors that received investment were information and communications technology (ICT, mainly in BPO), real property, manufacturing, mining and quarrying, and wholesale and retail trade.

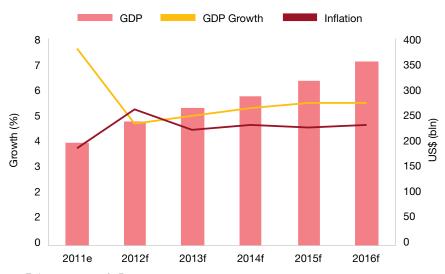
In 2012, the Philippines' Department of Trade and Industry reported that about PHP127.2 billion (US\$3 billion) in foreign investments was invested in BPO, electronics and energy sector. About PHP63.6 billion to PHP84.8 billion (US\$1.5 billion to US\$2 billion) is expected to come from Europe.

Expected new investments

- 1. Infrastructure
- 2. Agribusiness
- 3. Business process outsourcing
- 4. Creative industries
- 5. Manufacturing and logistics
- 6. Mining
- 7. Tourism, medical travel and retirement

Source: Australian-New Zealand Chamber of Commerce of the Philippines, 2012

Chart 11: Steady GDP growth with moderate inflation



e – Estimate f - Forecast Source: EIU Viewswire. 2012



Market overview

Mobile & wireless broadband is key

Mature mobile sector

With the second largest population in Southeast Asia of 96 million after Indonesia, the Philippines has a large consumer base for its telco market. The country is known as one of the most prolific text messaging markets in the world, accounting for almost 10% of global SMS messages.

According to the International Telecommunication Union (ITU), the Philippines' telco market reported PHP224.8 billion (US\$5.3 billion) in revenue in 2011.

The market is dominated by the mobile segment, which accounts for 80% of the telco sector and consist mainly of prepaid services. Its neighbours like Thailand and Vietnam, the Philippines' mobile market is in the mature stage, with a mobile penetration rate of over 100% (or 102 million subscribers). Over the next five years, subscriber growth is forecast to grow on average 3.5% p.a..

Dominated by three players

The combination of high competition, low ARPU and high capital expenditure has limited the number of mobile sector players to three. They are Smart, Digitel and Globe Telecom.

In addition, the market is expecting an emerging new player, conglomerate San Miguel Corporation (SMC), following its numerous telco acquisitions since 2010 (e.g. Eastern Telecommunication Phillippines Inc. (ETPI), Bell Telecom, Liberty Telecom.

Prospects and challenges

The future of the telco market is expected to shift from the mobile voice space to 3G and mobile broadband due to growing demand for social media and multimedia content. This is further fueled by rising mobile accessibility and sale of smartphones.

Prospects for the telco market will continue to be challenged by low growth and mature mobile market, low cost and price sensitive subscribers, competitive price and intense market promotion.

In the face of low-cost base subscribers, it will be challenging for telco operators to push the conversion of prepaid to postpaid users, although the latter market provides opportunity to increase ARPU.

	Mobile Large but competitive	Broadband Small but growing fast	Fixed line Stagnant growth
Market size	Large • 2012': 102.3 mln subscribers • 2012': Penetration rate of 106% • Big pool of youthful subscribers • Large pool of SMS market¹ • 2011: Accounts for 80% of total telco revenue at PHP165.4 billion (US\$3.9 billion)	Small • 2012': 7.1 mln subscribers • 2012': Penetration rate at 7.4%	 Small 2012^f: 4.2 mln subscribers 2012^f: Penetration rate of 4.4%
Growth	Moderate Subscriber growth of 3.5% p.a. (2012-16)	 Attractive Steady growth of 9.6% p.a. (2012-16) Double digit growth for 3G subscription at 12.7% p.a. (2012-16) Mobile broadband forecast to be used by 60.6% of the population by 2016, up from 13% as at end-2011 	Flat ■ Stagnant growth of below 0.01% p.a. (2012-16)
Competition	High Estimated low ARPU of PHP138 (US\$3.25) in 2012 due to competitive and price sensitive market and heavy reliance on prepaid and SMS Three key mobile operators, dominated by Smart, Digitel and Globe Telecom - combined, they account for more than 80% of total mobile subscribers Government-owned Philippine Long Distance Telephone Co. (PLDT) acquired Digitel in October 2011, combined, the two mobile operators control 52% of the mobile market San Miguel Corporation (SMC) poised to be the fourth major player	High Major mobile and fixed line operators are competing to grow this area with attractive growth prospects Competitive pricing to attract new users Bulk of mobile subscribers are price sensitive prepaid users Dominated by two players i.e. state owned, PLDT and privately-owned Globe Telecom, together they account for 60% of the market Potential entrant – SMC, Sear Telecommunications and Schutzengel Telecom	Crowded Six key fixed line operators, however, dominated by three players i.e. PLDT and privately-owned Innove (Globe) and Bayantel, with PLDT controlling 68% of the wireline sector Face consolidation pressure as a result of limited growth opportunities and competition from mobile operators SMC to enter as a new player
Prospects	New 3G licenses Government to offer two 3G licenses Smartphone growth Smartphone penetration to grow from 18% and to 50% in the next three years Rural market Rural market remains relatively untapped, which accounts for 51% of the country's population	Planning for 4G Operators are investing and looking to launch 4G or Long Term Evolution (LTE) network services More access NTC plans to reallocate more frequency bandwidth for broadband access Launch of mobile WiMAX network on a national basis, allowing for greater access to remote area	Rural market Teledensity in rural areas still low at less than 4%, with room for expansion

• Stronger deployment of submarine cable

projects by the government

Source: BMI, Q2 2012 and PwC analysis

¹ 10% global market share ^f Forecast

Growth opportunities

Key growth drivers and potential opportunities for the Philippines' telco market include:

- Increasing affluence
 - The country's disposable income per capita is expected to grow at 7.2% p.a. over the next five years, while mobile handset sales are estimated to grow by 8% p.a. to 17 million units in 2016.
- Higher smartphone usage Smartphone sales are expected to grow by about 60% in 2011. Already there are large shipments of around 2.9 million units.

Growing 3G and mobile broadband

Growing demand for high speed Internet access from smartphone users has buoyed demand for 3G and mobile broadband.

Popularity of social media and multimedia content

The Philippines is the eighth largest Facebook user populace in the world, with 27.7 million users as at end 2011.

 Low penetration of the broadband market

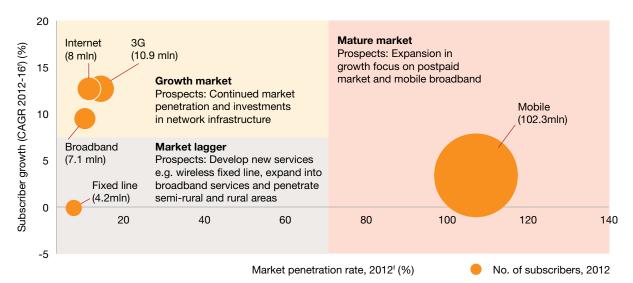
Currently only 8% of it's total population has broadband access and this presents significant growth opportunities.

Conversion of prepaid to postpaid subscribers

Mobile operators are focusing on developing postpaid services to grow ARPU i.e. converting prepaid subscribers into postpaid.

• Rural market potential Semi-rural and rural markets, accounting for 51% of the total population, remain relatively untapped.

Chart 13: Relative position of the Philippines' telco subsectors



^f forecast Source: BMI, Q2 2012

Mobile

Mature market

The Philippines' mobile market recorded strong growth in the last decade with mobile subscribers increasing from 6 million in 2000 to 92 million in 2011. Growth over the next five years is forecast to moderate at 3.5% p.a. as the market matures. By 2016, mobile subscription is expected to reach 117 million, with a penetration rate of 114%.

Declining ARPU

The Philippines' ARPU is relatively low, estimated to average PHP146 (US\$3.41) as at the end of 2011, just slightly above that of Indonesia and India.

Mobile operators also face declining ARPU due to:

- Large pool of prepaid subscribers.
- Popular demand in text messaging¹, leading to lower voice revenue.
- Multi-SIM usage and inactive subscriptions.
- Cheap international calls.

Emerging growth in postpaid and broadband

Mobile operators are looking to expand broadband and postpaid services to drive revenue growth, in the face of a mature low-growth mobile market.

PLDT, for example, is planning capital expenditure rollout amounting to about PHP67 billion (US\$1.6 billion) in FY2011/12 to improve the quality of its fixed and mobile broadband services.

With smartphone penetration forecast to grow from 18% to 50% in the next three years, telco players are pushing sales of web-enabled smartphones and promoting mobile social media.

Small but growing 3G

Although the market penetration for 3G services is relatively low at 11.3% in 2011, the market is anticipated to register double- digit growth of 12.7% p.a. over the next five years (2012-2016), fueled by growing demand for mobile internet access.

Attractive market growth and the issuance of new licences by the government has drawn new players to the segment, including:

- Entry of conglomerate San Miguel Corporation (SMC).
- Government is reissuing Digitel 3G spectrum² and auctioning an additional 3G licence.

¹ The Philippines accounts for almost 10% of global SMS messages.

² Released by PLDT via Connectivity Unlimited Resources Enterprises' (CURE) after merger with Digitel

Broadband

Most attractive segment

The broadband subsector is still a niche market representing less than 8% of the population as at end-2012.

The broadband subsector appears to be the most attractive, with the fastest subscriber growth of 12% p.a. and forecast to reach 10.2 million by 2016.

Demand for broadband is driven by:

- Growing ownership of smartphones and demand for mobile broadband
- Growing demand for content and data from Internet users.

Broadband operators are putting significant investments in developing their network infrastructure as it plays a vital role in their growth prospects.

Some of the key developments include:

- Smart Communications' PHP6 billion (US\$141.5 million in capital expenditure) to modernise and expand its 2G/3G network and mobile broadband networks.
- Globe Telecom launched a PHP33.5 billion (US\$790 million) five-year network modernisation project (2012-2016), anticipating growing demand for broadband and mobile data use.
- Trial of next generation mobile broadband technology LTE has been implemented, driving positive long term outlook.

Fixed line

Flat growth

The Philippines' fixed line market significantly lags behind its mobile counterparts.

- In 2012, the country's fixed line teledensity stood low at 4.4% in contrast to the saturated mobile market
- Despite the concerted effort of both the government and the operators to expand the national fixed network, only slightly more than half of all Philippine towns and cities have a basic telephone service.

Growth in the fixed line market is expected to remain marginal at 0.1% for the next five years. Fixed line operators are also facing further competitive pressure such as:

- Spread of VoIP provides free, and the rising use of fixed-wireless connections.
- Popularity of SMS services and cheap mobile tariffs.
- Expensive basic telephone charges.

Some fixed operators are launching fixed wireless services and continuing their expansion into rural parts of the country to maintain growth for the next three to five years.

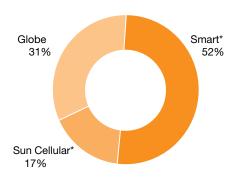
Competition landscape

The Philippines' telco industry is experiencing significant change in the competitive landscape with continued consolidation and the entry of new players. For example:

- With the merger of PLDT and Digitel, their larger subscriber base spurred wider product offerings and growth opportunities with competitive pricing.
- SMC aims to be another major telco player after forging a joint venture with Qatar Telecom forming Liberty Telecom, a new entrant in the wireless broadband sector offering WiMAX services.
- Bayan Telecommunications Inc. (Bayan), a broadband operator, has acquired a permit to operate a cellular-mobile telephone system (CMTS) network.

The bulk of the mobile market is skewed towards the duopoly PLDT and Digitel, commanding about 70% of the market both in terms of revenue and subscribers. The remaining 30% of the market is owned by Ayala-owned Globe Telecom Inc.

Chart 14: The Philippines' telco market share



PLDT-owned Source: BMI, Q2 2012

Strategies and positioning

PLDT: Smart Communications to focus on prepaid segment, while recently acquired Digitel, with the largest postpaid subscriber base, will continue to focus on the postpaid segment.

Globe Telecom: Drive growth in its mobile business by:

- Leveraging on the continued success of its personalised and customisable postpaid plans; and
- Providing innovative and value-for-money offers in the SMS market, and relevant mobile data services (e.g. postpaid) plans.



Game changers

Market consolidation with new players

Chart 15: The Philippines' key telco players and product segments

	Ownership	Mobile	Broadband/ WiMAX	Internet / ISP	Fixed line	Business- enabling solutions ¹
PLDT ²	PCD Nominee Corporation (27.05%), JP Morgan Asset Holdings (Hong Kong) (25.46%), Philippine Telecommunications Investment (13.94%)	~	√	√	~	√
Digitel ³	PLDT (51.55%), Public (48.45%)	✓	✓		✓	✓
BayanTel⁴	Lopez Group and Benpres (85.4%)		✓	✓	✓	✓
Globe Telecom (Globe) ⁵	Asiacom (54.50%), SingTel (21.54%), Ayala (13.86%), Public (10.1%)	✓	√	~	✓	✓
Smart Communications	PLDT (100%)	✓	√			
Bell Telecom	San Miguel Corporation (100%)		✓	✓	✓	✓
Eastern Telecommunications Philippines (ETPI)	San Miguel Corporation (40%)		✓	✓	✓	✓

¹ Corporate business solutions for MNCs or SMEs, e.g. high-speed broadband, voice and data services

² PLDT operates through Smart Communication, Red Mobile / CURE, Telesat Philippines, PLDT Clark Telecom, PLDT Subic & PLDT-Maratel & Bonifacio Communications

³ Acquisition by PLDT in 2011 and operates through Digitel Capital, Digitel IT Services & Digitel Mobile (Sun Cellular)

⁴ Owned Marifil Holdings Corp (100%) and BTI (98%)

⁵ Operates its broadband and fixed line services through Innove Communications

Regulatory environment

Telco industry policy

The ICT sector which includes the telco sector, is one of the fastest growing areas in the Philippines' national development. Annual industry growth is estimated at 12% CAGR over 2006 to 2014 and total ICT spending is anticipated to reach PHP188 billion (US\$4.5 billion) in 2011.

To further develop its ICT sector to become more globally competitive and to attract foreign investments, the government has embarked on several ICT initiatives. Among them is the reorganisation of related communications agencies under a new dedicated body, the Department of Information and Communications Technology (DICT)¹.

Among the agencies which will be part of the DICT is the National Telecommunications Commission (NTC), which is responsible for the regulation of the telecommunication industry.

NTC's key functions include:

- Issue certificates of public convenience and necessity (CPCNs) for the installation, operation and maintenance of communications facilities and services, and radio communications systems
- Establish areas of operation for franchised carriers and determine the various services' rates for operators.
- Establish and enforce rules, regulations, and standards with respect to any personal communications network (PCN)

Other agencies to be placed under DICT are:

- Commission on Information and Communications Technology
- National Computer Center
- Telecommunications Office
- All operating units of the Department of Information and Communications Technology (DICT) with functions and responsibilities dealing with communications
- ICT Office under the Department of Science and Technology
- Philippine Postal Corporation

¹ The reorganisation is provided under the Senate Bill No.50 passed in February 2012

ICT targets by 2016

Apart from restructuring the ICT regulatory structure, the government has also developed the Philippine Digital Strategy (PDS) 2011-2016, which aims to leverage the use of ICT for national development.

The four strategic thrusts of the PDS are:

- 1. Transparent government and efficient services delivery,
- 2. Internet opportunities for all,
- 3. Investing in people: digital literacy for all, and
- 4. ICT industry and business innovation for national development.

For the telco sector, the PDS plan is expected to create further demand for telco services, especially from the corporate segment, with the government targeting:

- 90% of companies to use the Internet by 2016;
- 30% of companies using ICT for e-commerce by 2016; and
- 10% increase in ICT usage among micro-companies by 2016.

Chart 16: Targets: ICT Industry and Business Innovation for National Development by 2016

ICT usage among MSMEs ¹	Attract investment & business	High-value ICT capacity & increased jobs	Innovation & commercial success	Investments in ICT R&D³
90% of registered companies use the Internet 60% of registered companies have a web site 30% of registered companies use ICTs for e-commerce 10% increase of ICT usage among microcompanies over baseline data	Over US\$20 bln IT/BPO revenue Over 9% of share global BPO market Increase international IT competitiveness ranking	Exceed 900,000 FTE² in IT/BPO industry Over 40% ICT jobs outside Metro Manila Over 50% of IT/BPO business is non-voice related Over 60,000 IT graduates Increase in ICT-related PhDs over baseline data	Increase in number of commercialised ICT patents and copyrights over baseline data	Increase in spending on ICT R&D over baseline data Increase in original digital content over baseline data seline data
Object	ives that are suppor	ted through the a	chievements of the	targets
• Support MSMEs ¹	Global visibility, increased investment & business	Increase ICT-related jobs High-value ICT capacity	Increase ICT innovations	Increase in original digital content Improve ICT R&D

¹ Micro, small, and medium enterprises

Source: The Philippine Digital Strategy 2011-2016

² Full-time equivalent

³ Research and development

ICT

ICT-BPO spurs digital market trends

Global leader in BPO industry

According to the IBM Global Location Trends Report 2010, the Philippines has surpassed India in terms of voice-related outsourced work to become the global leader.

Over the past six years, the BPO industry has grown at 28% p.a., outpacing the global 10% growth rate. Almost 640,000 Filipinos now work in the BPO sector, which saw revenues top PHP466 billion (US\$11 billion) in 2011, representing 4% of the country's GDP.

With the presence of two fibre-optic backbone networks linking most parts of the country and a strong ICT-BPO¹ industry, the Philippines is expected to maintain its digital economy ranking at 54th position, ahead of countries such as China, India and Vietnam (chart 18).

By 2016, the BPO Association of the Philippines (BPAP) projects that the number of Filipinos employed in the BPO sector may reach 1.1 million.

During this same period, annual revenues are expected to grow to PHP636 billion (US\$15 billion).

Chart 17: Digital Economy Ranking – Philippines ranked 54th position

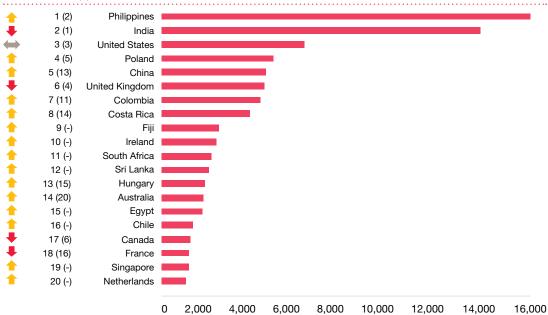
Country	Digital Economy Ranking	Digital Economy Score
Hong Kong	7	8.22
Singapore	8	8.22
Taiwan	12	7.99
South Korea	13	7.94
Japan	16	7.85
Israel	26	6.96
U.A.E. ²	32	6.25
Malaysia	36	5.93
Turkey	43	5.24
Thailand	49	4.86
Jordan	51	4.76
Saudi Arabia	52	4.75
Philippines	54	4.47
China	56	4.28
India	58	4.11
Vietnam	62	3.87
Sri Lanka	63	3.81
Indonesia	65	3.60

Source: Economist Intelligence Unit, 2010

¹ Information and communications technology-business process outsourcing

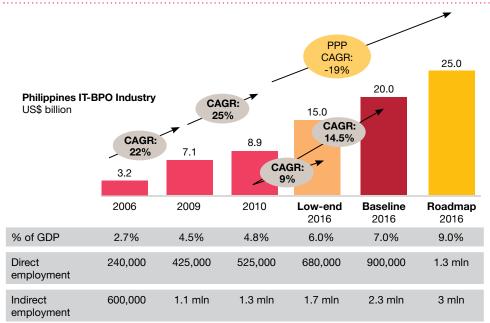
² United Arab Emirates

Chart 18: Global Location Trends - top ranking destination countries by estimated jobs in business support services



Source: IBM Global Location Trends Report, 2010

Chart 19: The BPO industry has the potential to become a US\$25 billion industry by 2016



Source: BPAP, "IT-BPO Road Map 2011-2016", October 2010

PwC telco capabilities How PwC can help

Our service capabilities

Strategy

- Corporate and functional strategy development and validation
- Merger, acquisition and restructuring advisory
- Due diligence and transaction support
- Joint venture strategic alliance and collaboration support
- · Investment and exit strategies

Launch

- Launch management e.g. service and network rollout and IT deployment
- Programme and project management
- Business readiness assessment and rollout support
- Business policy and process development
- Organisation design and change

Market and customer development

- Growth and differentiation evaluation of markets and services
- New product and distribution channel deployment
- Customer lifetime analysis and experience enhancement
- · Churn management
- Product/customer profitability analysis and margin enhancement
- Revenue assurance effective revenue management solutions to control leakage and improve the top line

Operations efficiency

- Covers key operational issues like people, process, technology, distribution channel, vendor and asset management
- Cost optimisation evaluation and improvement of current operating models and cost ownership
- Outsourcing management solutions
- Performance review and improvement including strategy, structure, process, people and systems dimensions
- Accounting and finance function effectiveness

Regulation and compliance services

- · Audit and assurance
- · Tax planning and compliance
- Governance, risk and compliance

Performance improvement

- · Strategy, sustainability and transformation
- · Operations and finance
- Technology
- Corporate finance and deal value (transactions)

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Glossary of terms

Abbreviation	Full Term	Abbreviation	Full Term
3G / 4G	Third/fourth generation mobile phone standards and technology	LHS	Left-hand side
ARPU	Average revenue per user	LTE	Long Term Evolution
bln	Billion	mln	Million
ВМІ	Business Monitor International	MNC	Multinational Corporation
BPAP	BPO Association of the Philippines	MSME	Micro, small, and medium enterprises
BPO	Business process outsourcing	MVNO	Mobile virtual network operator
CAGR	Compound annual growth rate	NTC	National Telecommunications Commission
CPCN	Convenience and necessity	p.a.	Per annum
DICT	Department of Information and Communications Technology	PCEV	PLDT Communications and Energy Ventures
DOTC	Department of Information and Communications Technology	PCN	Personal communications network
ETPI	Eastern Telecommunications	PDS	Philippine Digital Strategy
	Philippines	PHP	Philippine Peso
FDI	Foreign direct investment	PLDT	Philippine Long Distance Telephone Company
GDP	Gross domestic product	R&D	Research and development
GSM	Global system for mobile communications	RHS	Right-hand side
HSBB	High speed broadband	SME	Small-medium enterprise
ICT	Information and communications technology	VOIP	Voice Over Internet Protocol
ΙΤ	Information technology	WiMAX	Worldwide Interoperability for Microwave Access
IPTV	Internet Protocol television	•••••	







