

2008/SMEWG/SYM/002

Agenda Item: 1.1

Vietnam IT Industry: Situation and Policies

Purpose: Information Submitted by: Vietnam



APEC Symposium on Improving Market
Access for ICT Outsource SMEs
Hanoi, Vietnam
27–29 October 2008





Mr. Nguyen Trong Duong, DDG Dept of Information Technology

APEC Symposium on Improving Market Access for ICT Outsource SMEs
Oct 2008



- 1. Overview of IT Industry in Vietnam
- 2. IT Legal Frameworks and Policies
- 3. SWOT analysis for IT Industry of Vietnam
- 4. Conclusions

Overview of IT industry of Vietnam



W_e

Overview of IT industry in Vietnam

Growth rate (2002 – 2007)

Value (USD) 635 mil

Export (USD) 560 mil

Growth rate : ~ 25%

Value (2007)

Software, 498

Hardware + electronic.

High growth rate: Average growth rate for the period of 2002 – 2007

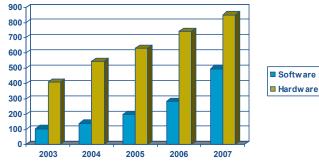
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- Total value in 2007: USD 3.7 bil, including USD498 mil of software. Export value in 2007 was USD 2.5 bil
- Development of high tech zones, IT areas, Software development zones.
- Electronic and hardware are still dominant, however software industry and digital contents are said to be very potential in terms of higher profit, important role in social and economic development



Overview of IT Industry in Vietnam

- Vietnam IT industry has grown speedy in the last 5 years. IT industry revenue reached \$3.7 billion in 2007, which include:
- Hardware/ Electronic/ Telecom Industry: \$3.377 billion
- Software Industry: more than \$498 million, increased by 43%
- Digital content Industry: more than \$180 million, increased by 58%



Vietnam IT market 2003-2007 (M \$US)

We !

Hardware and electronic industry

- Satisfy around 80% domestic demand, especially home electronic and computer.
- Average growth rate of 20-30% annually. In 2007, the value reached USD 3 bil, and growth rate of 25% annually.
- Export value increases 17 times within 10 years (USD 2.2 bil in 2007). The export market expands to 35 countries.
- Products exporting: 80% is home appliances, 20% of specialized products (used in IT inudstry)
- The key role of foreign owned enterprises in both domestic and export markets (account for more than 90%)
- Concentrate on 2 economic centers, Hanoi and HCM city





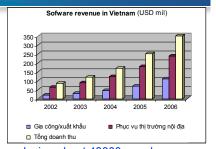






Software industry

- Revenue in 2007 was USD 498 mil, including USD 318 mil for domestic market and USD 180 mil exports
- Average growth rate for the last 5 years was over 40% annually. In 2007, it was 42%. Outsourcing growth rate was 64% in 2007.

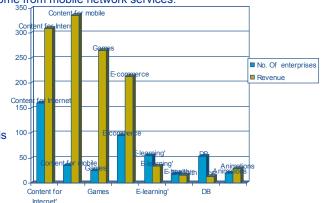


- With more than 1000 software companies employing about 48000 people
- 2 enterprises with CMMI level 5 certificate, tens of companies with CMM- 4, CMM-3 or ISO-9001
- About 200 companies participating in the software outsourcing industry with 100-150 employees for each company. Some big companies with more than 100employees such as FPT software, FPT Information Systems, TMA, PSV ...
- Software export markets:
 - The main software products are in terms of outsourcing and software services
 - The main markets are Japan, North America and Western Europe



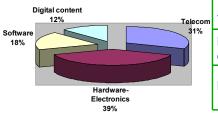
Digital Content Industry

- Up to 2007, there are 500 enterprises with nearly 32000 employees, and revenue of USD 180 mil
- Four areas of digital contents: mobile network, internet contents, games, and ebusiness. Internet contents and e-commerce attract more companies, however, the higher revenue come from mobile network services.
- Most of companies are private with domestic investment capital (more than 60%), foreign owned enterprises account for only 10%.
- Online entertainment is becoming popular and very potential. It is very promising area.





IT Human Resources (1)



Total employee in ICT sector	464,000
Labor with certificate of IT, electronic, and telecom	311,000
Labor with college degree of IT, electronic, telecome	153,000

- ❖There are about 464.000 employees working in IT and telecom industry
- There are about 311.000 employees or 77% have knowledge and certificate of IT, electronic, or telecom.
- ❖Of which, 153.000 employees or 43.8% with college degree.
- 19% employees working in hardware companies, 64% in telecom compani 17% in software and digital content companies

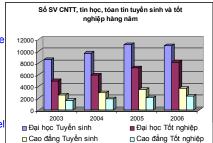


Training for IT, electronic and telecom industry

No of school have IT, electronic and telecom training •						
Major	jor IT, Informatics, Maths		Elec	ctronic, Tel	ecom	
Level:	Uni	College	school	Uni	College	Voc. Sch
						•
2002	55	80 (12)	33	20	6 (3)	-
2003	61	87 (19)	56	20	6 (4)	-
2004	74	107 (25)	97	22	6 (3)	-
2005	86	108 (27)	135	28	8 (7)	55

Number of specialized school for this industry increases continuously. There are 93 uni, 156 college and 187 vocational schools have IT related subjects.

- Number of enrollment and graduate student increases
 - About 9000 new uni graduates, 10000 college graduate and about 11000 graduating from vocational school every year
 - For electronic and telecom specialized, there are about 3000 uni graduates, 1000 college graduates and 4000 workers from vocational schools every year.
 - Quota for 2007 enrollment: 17535 for uni leve and 17899 for college level





Telecom infrastructure - Internet

- Fast develop, now there are 8 telecom operators, 5 IXP, 9 ISP & 14 OSP
- Amount of Subscribers and Internet users increase rapidly
 - Telecom: subscribers increase by 40-45%/year; total line subscribers is 33,2 million, about 39,4 lines/100 inhabitants
 - Internet users: increased by 40%/year, total internet users: 15.8 million, about 19 users/100 inhabitants
- International Internet connections:
 - 3 international ports, connecting to 10 countries
 - International capacity: from 1 Gbps in 2003 jump to 8.7 Gbps in 2007.
- Rapidly Broadband infrastructure implementing & developing. ADSL services spread over 64 cities/provincials. Internet access quality is better. Management of QoS is improved better.
- The cost is dropped, especially in fix-phone, cell phone, Dial-up, ADSL, is the same or less than other nations in the region
- Leased line rate is still expensive, but will soon solved by MIC with the
 policies to decrease the cost.
- Satellite launched in 19th April 2008

Legal and Policies







Policies and Measures to develop IT Industry

Prime Minister have approved number of master plans to promote the development of IT Industry in Vietnam:

- Master plan to develop Software Industry to the year 2010, approved by Decision No 51/2007/QĐ-TTg
- Master plan to develop Digital Content Industry to the year 2010, approved by Decision No 56/2007/QĐ-TTg
- Master plan to develop Hardware Electronic Industry to the year 2010, approved by Decision No 75/2007/QĐ-TTg
- Master plan to promote OSS in Vietnam, approved by Decision No 235/2004/QĐ-TTg
- Master plan to promote eCommerce in Vietnam, approved by Decision No 222/2005/QĐ-TTg



Policies and Measures to develop IT Industry

Objective of IT Industry:

- IT industry is key developed industry, grow rate of 20 -25%/year, revenue: 6 – 7B \$US by 2010
- Annual growth rate of Software industry and Digital Content industry remain 40% - 50%, which archive > USD 1 bil. in 2010
- Software industry will occupy the domestic market, and be recognized by global market, especial outsourcing services.
- Large number of high skilled software developers and professionals. IT training system reaches the international level both in professional skills and communication skills (English). Large SI labor force will be exported.



Policies and Measures to develop IT Industry

Main Measures:

- To review the legal environment for IT industry, especially tax & land cost; Review all legal documents and policies for SI development, make sure policies are synchronous and consistent with each other, concretizing policies to sub-legal documents to ensure these policies are translated into reality.
- To increase IT human resources and improve quality of training: increasing number
 of It students; open more IT colleagues and universities; reform program and method
 of It training; train It by English; encourage enterprises and organizations to invest in
 training IT labors;
- To enhance the abilities of enterprises: supports software companies to apply CMMI; technology transfer; help companies to enter new markets; enhance competitiveness;
- Facilitation of investment environment: create a fair environment for all enterprises (domestic and foreign); build IT industry parks; promote the operation of venture capital funds;
- To promote OSS: issue the list of OSS products should use in e-government projects; policies to promote the use of OSS products;
- To promote R&D in IT: select and focus in some product that Vietnam has strong points; Focus on development of software outsourcing and services; Set up the implement of IPR, Investor's legal rights.
- To upgrade telecommunications-Internet infrastructure for the software & digital content industries; develop the broad band; move to 3G; support favorable cost, connection, and leased-line;



Polices for software enterprises

- Four-year exemption of company's income taxes from the first year having taxable income.
- Preferential income taxation for people working in software industry.
- 0% of Value Added tax (VAT) for software products and services.
- 0% import tax for materials directly used in the software production.
- 0% export tax for software products.
- Subsidy Internet access' fees for enterprises operation in Software Parks.
- Applied investment supporting from the state's development support fund.
- Exempt or diminished the cost of using and renting land as well as the using land tax.

SWOT analysis for IT Industry of Vietnam





Opportunities

- · Global ICT industry is growth rapidly.
- Continuing shortage of IT professionals in the developed world
- Need to reduce the cost & increase productivity created demand for offshore outsourcing of MNCs in ICT field.
- Appear new markets for outsourcing & IT services such as Japan, Singapore, Australia, Canada, Europe ...
- Rising costs and attrition in traditional offshore outsourcing destination such as India, Ireland, Israel,...
- Unstable of political system, and insecure in some countries and the region >< very stable of Vietnam.
- Strong supported of Vietnam Government to develop Software Industry



Strengths and attractive points (1)

- Talent Pool: vast pool of talent is available which is rapidly growing. Populations of Vietnam are young (60% from 17 to 60 years old). IT labour force of Vietnam are creative, hardworking, good educational backgrounds.
- Low Cost: The operating costs and salaries are much lower than other
 offshore outsourcing destinations such as India (1/3), China (1/2),
 Philipine
- Low attrition: which the culture favor stable, attrition in Vietnam is low (5-7%)
- Diaspora: Historically Indian and Chinese diaspora played a key role in building its reputation overseas. Similarly Vietnam boasts of a large diaspora in the US and other developed world which could provide important linkages between the US and Vietnam
- Relationships & Familiarity: : Familiarity with western countries, especially America, makes it easy to overcome cultural barriers. There is also a large Vietnamese population in the US that is playing an important role in fostering familiarity
- Cultural Compatibility: Strong cultural compatibility with Japan and China is encouraging partnership with these countries
- Strong supports from Government
- Security and Political stability



Strengths and attractive points (3)

Compared with India and China

	Vietnam	India	China
Wages-Project Manager	8,400	25,000	15,600
Wages-Programer (5 years	6,000	16,000	10,800
experience)			
Wages-Programer (entry	2,500	7,000	4,600
level)			
Gov't Support	Strong with low level of	Strong but bureaucratic	Non visible. More
	red tape		support from MNC's
English Skills	Average, with	Good	Below average
	availability of good		
	speakers		
Attrition Rates	av 5%	Call Centre av. 50%, IT	Between 10 - 30%
		av. 30%, BPO av. 15%	overall
Graduates Availability	Adequate and rising	High, but large variance	Adequate and rising
	with good quality	in quality	



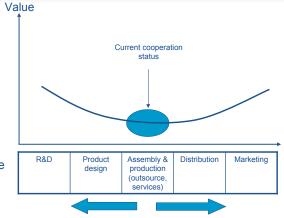
Weakness, Challenges & Threats

- Size and scale: The IT outsourcing business in terms of number and size of projects is still small compared to India or China. Also the size of most of the providers is relatively low. This limitation, however, is improved recently since there are several firms is reached the 1,000 IT experts, many firms are reach 500 employees.
- IT infrastructure: still low requirement of the industry need, low bandwidth, high cost.
- IPR: High piracy rate for software
- Skill management & language: weak in terms of experiences, management and English capacity, not enough leading experts for the industry need
- Competitive with China, India, and others
- · English capacity, not enough leading experts for the industry need



Cooperation Proposals

- Hope to strongly cooperate in software outsourcing and gradually join in higher value creation cluster, e.g. Design and R&D in IT industry
- Vietnam needs to step by step improve capabilities of IT domestic enterprises and create internal value => cooperate in human resource development, business environments, technology transfer





Conclusions

- Vietnam IT industry has been developing rapidly, won initial achievements, ready to tighten cooperations with prominently potential partners.
- Vietnam has many strengths and opportunities to be come one of the most attractive destinations of software outsourcing and services in the world;
- Government engages support favorable policies for promoting IT industry, especially in IT focused products, outsourcing and services currently.
- We do hope to see the enhancement in cooperation between Vietnamese enterprises and regional and international partners and expect your contribution to our IT development in trade, HR development, FDI, ODA v.v.



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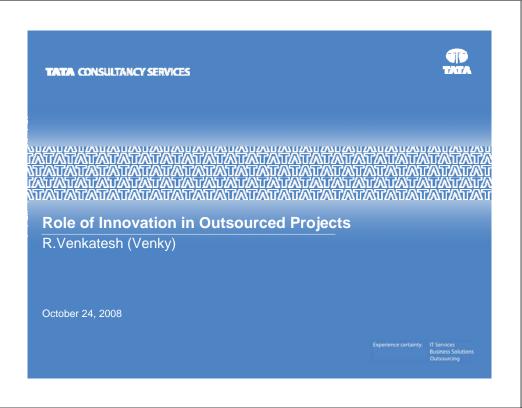
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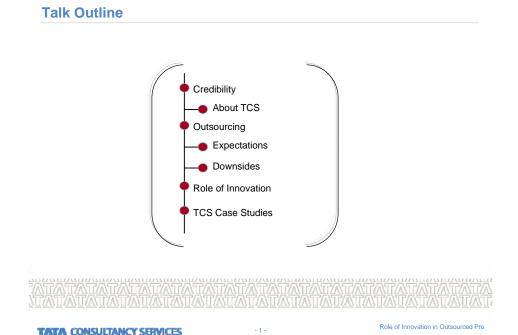
Role of Innovation in Outsourced Projects

Purpose: Information Submitted by: India



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TCS an Overview

- TCS was established in 1968
- FY 2008 revenue of USD 5.7 billion (1 from USD 4.3 billion in FY 2007)
- Over 1,21,610* employees
- 1st Company in the world to be assessed at Level 5 for integrated enterprise-wide CMMI and PCMM
- Global presence 160 offices in 42 countries
- First and Largest
 - Software R&D centre in India
 - Software exporter in India

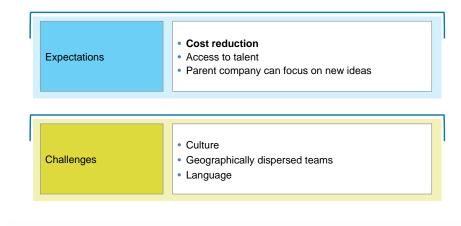
* Excluding Subsidiaries, 1,17,921 Associates inclusive of subsidiaries

As on 30th Sep 2008

TATA CONSULTANCY SERVICES

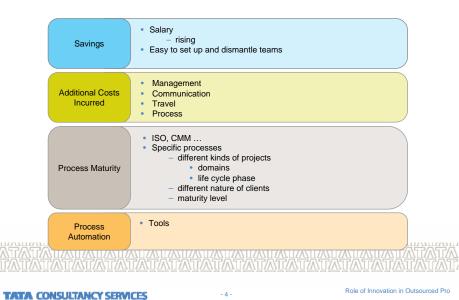
Role of Innovation in Outsourced Pro

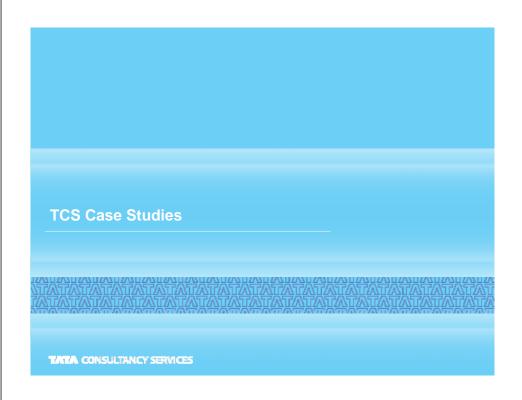
Outsourcing



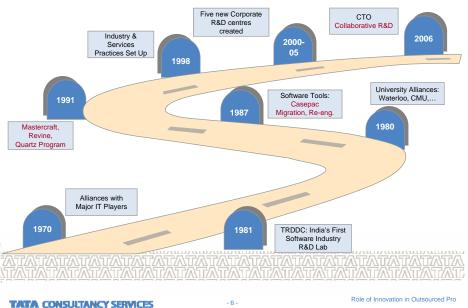
TATA CONSULTANCY SERVICES -3 - Role of Innovation in Outsourced Pro

Cost Reduction

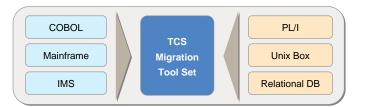




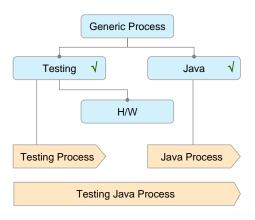
TCS Innovation Path



LP Tools



MAP - Process Innovation

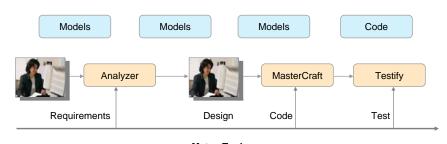


TATA CONSULTANCY SERVICES

Role of Innovation in Outsourced Pro

MasterCraft

TCS - Software Foundry



Meta - Tools

TATA CONSULTANCY SERVICES

- 9 -

Role of Innovation in Outsourced Pro

Productivity

Productivity - 25 FP/m Industry Average - 10 FP/m

Defect Density - 0.05 defects/FP

Industry Average - 0.33 d/FP

Maintenance - Extraction of specifications

Manual (without tool)

Project 1 - 110 LOC/pers day

Project 2 - 200 LOC/pers day

Using Revine

Project 3 - 1250 LOC/pers day

Project 4 - 1000 LOC/pers day

Summary

- Innovation necessary
 - Reduce costs
 - Add value
- Small technical team focused on innovation
 - Process innovation
 - Process automation
 - Technology expertise



2008/SMEWG/SYM/003

Agenda Item: 1.3

The Philippine Cyber Corridor Initiative

Purpose: Information Submitted by: The Philippines



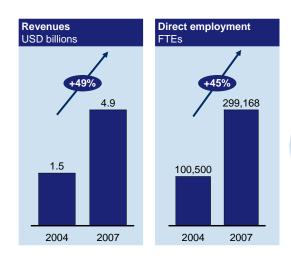
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The Philippine Cyber Corridor Initiative

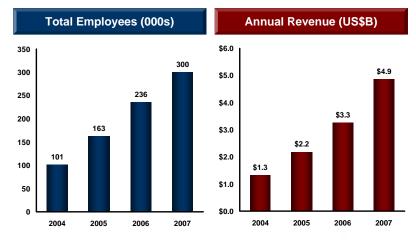


Philippines IT-BPO industry currently has close to USD 5.0 billion in revenues



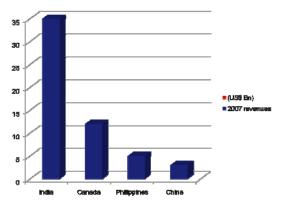
- Strong intrinsic skills
- English language
- -Cultural affinity to US
- -Large pool of talent
- Competitive factor costs
- -Labor
- -Real estate
- -Telecom
- Best in class incentives

Philippine IT-BPO Industry



Source: Business Processing Association of the Philippines

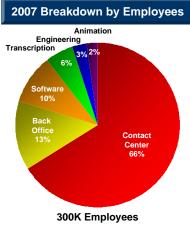
Philippines now the third outsourcing destination in the world, 2nd outside of North America

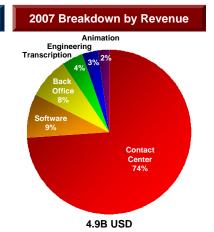


- All sectors growing; Contact centres is 2/3 of industry and growing 52%/yr over the past 3 years
- Back-office services primarily in F&A, HR, Legal and Health services now 15%, growing 46%/yr
- Software development is 10% of industry and continues to grow at 35%/yr

Source: Everest research

Segment Breakdown





Source: BPAP, CICT, Department of Trade and Industry

The Philippine talent value proposition: Large pool of English speaking talent

Number of college degree graduates	2007	Annual growth
Business & Accountancy	128,000	
Engineering & Tech	55,752	
IT-related courses	42,047	
Architecture	3,100	
Medical Sciences	31,400	
Fine Arts/Humanities	7,660	
TOTAL Tertiary level	454,818	3.8%

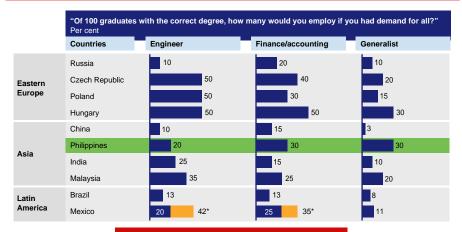
Over 400,000 collegedegree graduates annually out of 90 million population and a 36 million size labour force with literacy rate of 92.6%

	Рор	Labour force	Unemp rate	Literacy
World	6,602M	3,400M	6.3%	82.0%
India	1,130M	509M	7.8%	61.0%
China	1,322M	798M	4.2%*	90.9%*
Brazil	190M	96M	9.6%	88.6%
Philippines	90M	36M	7.9%	92.6%

Wide Breadth of Services

- Sales and Customer Support (Call centers, Help Desk, Sales)
- Business Process Outsourcing (Finance and Accounting, HR, Payroll)
- Software Development (Product Development, Bespoke Projects, embedded SW, Project Management, Quality Assurance)
- IT Services (BC/DR, Web Hosting, Network Management)
- Transcription (Medical, Legal, Publishing, Data Transformation, Film Subtitling)
- Games Development
- Engineering Design
- Animation
- Knowledge Process Outsourcing (Marketing Research, Legal Research and Preparation, Medical Research, Insurance, Mortgage)

The Philippine talent value proposition: Quality

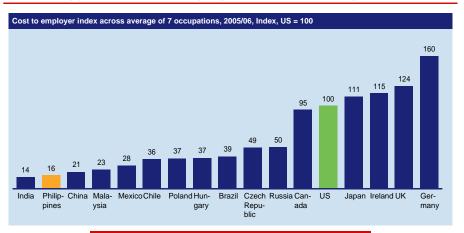


Suitability rates are empirically based on a total of >80 interviews with HR professionals working in each country

^{*} Mexico is the only country where interview results (higher number) were adjusted ex-post since interview base was thinner

Source: Interviews with HR managers: HR agencies and Heads of Global Resourcing centers; McKinsey Global Institute

The Philippine talent value proposition: Cost competitiveness



- Labor index was created based on average cost to employer on an hourly basis relative to the US for 7 occupations
- Cost to employer includes wage, bonus, and benefits
- Despite many changes the top 5 low cost countries remain the same

Source: McKinsey Global Institute: Watson Wyatt 2005/06 report

The Philippines is viewed as a favorable location for BPO services

- Frost & Sullivan, August 2007: Philippines among top 10 shared services and outsourcing locations in the world
- IMF, March 2007: "The Philippines has established a strong presence in voice-based BPO sectors such as call centres, and there are also signs of growth potential in other offshore services, such as medical transcription and animation."
- Gartner, Dec 2007: The Philippines has become a destination for call centre and back-office finance and accounting operations; rates highly in cost, labour quality and language/cultural compatibility.
- Nomura Securities, November 2007: "We think that the Philippines has grown into the No. 2 outsourcing base after India in call centre-based BPO fields."
- Everest Consulting, Apr 2008: The Philippines is now the third largest destination geography for BPO services
- Frontier Strategy Group, September 2007: The Philippines is among seven key markets that are "above the rest" and are the "most critical to achieving corporate growth and outperforming the competition in 2008 and beyond"

Awards and Distinctions



2007 Offshoring Destination of the Year: **Philippines**



Top 10 Outsourcing Cities in Asia Pacific: #2 Manila



Top 50 Emerging Outsourcing Cities:



#1 Cebu

#15 Pasig

#21 Quezon

#45 Mandaluyong



Top 10 Asian Cities of the Future:

#7 Quezon City

#8 Cebu

#10 Davao

Contact Center sector





Total Full Time Employees: 198,000

Estimated Revenues in 2007: US\$ 3.6 Billion

Past 3 years annual growth: 53%

Key Players in the Country:



Captives: Dell, AOL, JPMorgan, Siemens, HSBC, AIG, Citibank, Shell, Deutsche Bank, Six Continents, Ford (Percepta), GEMoney, Henkel, TrendMicro, etc.,

Business Processing (Back Office Operations incomedical/Legal Transcription)

- No. of Service Providers: 122
- Total Full Time Employees: 57,000
- Estimated Revenues in 2007: US\$ 595 Million,
- +32% vs year ago



Key Players in the Country:

<u>Captives:</u> AIG, Manulife Financial, ChevronTexaco,H P, HSBC, Procter & Gamble, Flour Daniel, Deutsche Bank, Citibank Crescent Services, Shell Shared Services, Alitalia, Watson Wyatt, Emerson, McKinsey & Co., Safeway, Thomson Intl, BakerMcKenzie, White&Case

<u>Third Party Providers:</u> Accenture, American Data Exchange, SVI Corp, SPI Technologies, IBM Solutions, Genpact, Guico&Kho, Prople Inc, Eximius BPO, Summersault Inc., Infinit-O BPO, BPO International, BayanTrade Dotcom, eDataServices, RRDonnelley, EXL, Asiatype

Software Development

Software Development Companies: 120

- Total IT professionals: 29,188
- Revenues in 2007: US\$ 423 Million, +56% vs year ago

Capabilities:

Applications development and maintenance; IT operations and infrastructure; business analysis, project mgmt, education

Key Players in the Country:

Accenture, Headstrong, Microsoft, IBM Solutions, Infosys, Jupiter Systems, Oracle, ADTX, Pointwest Technologies TrendMicro, Gurango, Sun Microsystems, Intel, HP, WeServ, NEC, RCG Philippines, Infoweapons, 3Logix, Blastasia, dBWizards, MIS Net, Orange & Bronze, Wipro



Gaming

- Total game development studios in the country: 20
- Three (3) years in the Philippines
- Total Animators in the country: 200+
- Revenues in 2007: <US\$ 1 Million, 2008 (est.) >US\$ 3M

Capabilities:

- PC Gaming
- Mobile Games
- Console Games



Key Players in the Country:

Matahari Studios/Kuju Asia Pacific, Gameloft, Pixelstream, Flipside

Animation

- Total animation studios in the country: 70
- Twenty (20) years in the Philippines
- Total Animators in the country: 7,000+
- Revenues in 2007: US\$ 105 Million, +8% year ago

Capabilities:

- 2D
- 3D
- Medical Animation



Key Players in the Country:

Holy Cow Animation, Artfarm Asia, Digital Exchange, Top Draw Animation, Toei Animation, Top Peg Animation and Creative Studio, Creative Asia, Geebo Digital, Toon City

Engineering & Design Process

- Total Number of Engineering Design Companies: 24
- •Total Number of Full Time Engineers: 8,000
- •Estimated Revenues in 2007: US\$ 152 Million,+124% vs year ago

Capabilities:

- Over 75,000 licensed professionals
- 40,000 graduates of engineering courses annually (CAD-Enabled)
- -Internationally accepted engineering standards Computer Aided Mfg (CAM); Computer Integrated Mfg (CIM)



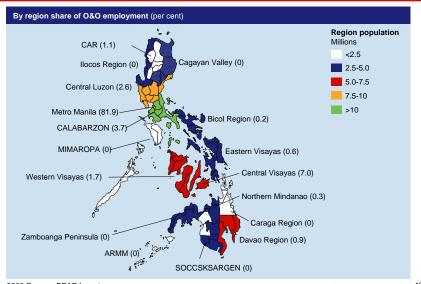
Key Players in the Country:

JGC Phils., Fluor Daniel, Bechtel, Tsuneishi, Kajima Corp, Parsons, C & E Corp, EEI Corp, Eichleay Pacific, Inc., Hyundai Engineering, Foster Wheeler, Kellog, Brown & Root, Bouygues Construction, Environment Global, Keppel, Nakayama....

Challenges

- Outsourcing Operations highly concentrated in Metro Manila
- Jobs-Skills Mismatch
- English proficiency has deteriorated
- Moving up to high value services

Outsourcing industry is highly concentrated in Metro Manila



Roadmap 2010 launched Oct 2007

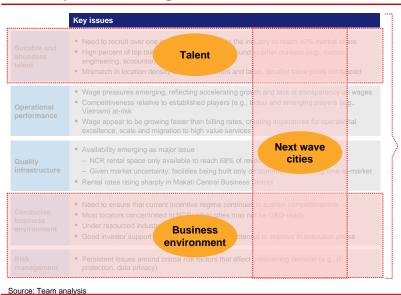
BPAP and McKinsey &Co developed the Philippine IT-BPO "roadmap" to achieving strong global #2 position in the world



Source: 2000 Census; BPAP Inventory

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Roadmap 2010 focusing on four broad themes



Next Wave Cities

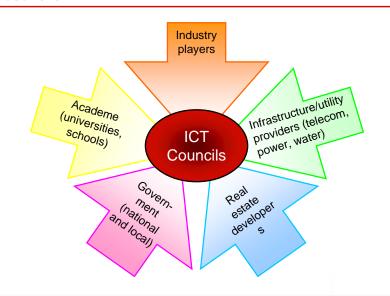


0&0 Scorecard



ICT Councils

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The Service Science Management Engineering (SSME) Initiative









There is a shift in the global economy and the world is becoming a giant service system, composed of six billion people, millions of businesses, and millions of technology products connected into service networks.

The service sector represents about 80 percent of the U.S. economy, and is projected to account for almost all US job growth through 2016. However, the shift towards services is not simply a US phenomenon, or a developed nations phenomenon - China has seen its service sector grow by 191% in the last 25 years and aims to shift 420 million workers from farms to services in the next five years.

The service sector now accounts for about 55% of Philippine GDP and grew by 8.7% in 2007.

To help students prepare for services-led jobs that will define the 21st century, IBM is actively working with universities around the world to develop "Service Science, Management and Engineering," or SSME – an emerging academic discipline and research area that aims to develop the skills required in a services-led economy.

The Commission on Information and Communications Technology (CICT), the Business Processing Association of the Philippines (BPAP), and IBM Philippines have agreed to collaborate to promote SSME in colleges and universities nationwide in order to develop the critical mass of talent required to sustain Philippine leadership in the global Offshoring and Outsourcing (O&O) Industry.

To that end, CICT, BPAP and IBM jointly organized the 4-day Conference on SSME: Towards Philippine Global Competitiveness in Offshoring & Outsourcing from August 5-8, 2008 at the CICT Building in Diliman, Quezon City.

Thank You and Mabuhay!