ICT SME Industry Note for Builk Case Study

1. Definition of sectoral SME

Various Thai government agencies have different definitions of what constitutes a small or medium enterprise. The Small and Medium Enterprises Promotion Act of B.E. 2543 (2000 A.D.) defines an SME in the services or manufacturing sectors as having no more than 200 employees and having fixed assets of no more than 200 million baht. An SME in the retail sector has no more than 30 employees and no more than 60 million baht in fixed assets. An SME in the wholesale sector has no more than 50 employees and no more than 100 million baht in fixed assets.

The Revenue Department defines five types of SME:

1. Companies or partnerships with no more than 5 million baht in registered capital
2. Companies or partnerships with no more than 200 million baht in fixed assets and no more than 200 employees
3. Companies or partnerships listed in the Market for Alternative Investment
4. Venture Capital firms holding stock in companies or partnerships with no more than 200 million baht in fixed assets and no more than 200 employees
5. Enterprises with no more than 1.8 million baht in annual sales

Various definitions also exist for information and communications technology enterprises. The OECD defines the ICT sector as the combination of manufacturing and services industries that capture, transmit, and display data and information electronically. However, this definition overlaps with commonplace definitions of the electronics sector, which also includes manufacturing of ICT components and devices. The basic law establishing the Ministry of Information and Communication Technology (MICT) of Thailand did not specifically define what ICTs are or what the ICT industry is. A Ministerial Regulation later defined ICT as technology involved in the creation, processing, transmission, storage, and reuse of news, information, and communications. In its ICT market surveys, the National Science and Technology Development Agency (which is itself part of the Ministry of Science and Technology, rather than the MICT) defines the ICT sector as including computer hardware (including computers from mainframes to PCs, special purpose hardware like ATMs and cash registers, and computing peripherals), computer software (including embedded software and mobile applications), computer services (including systems integration, network services, ICT training/consulting, and software/hardware/data-center operations, maintenance, and recovery services), and communications (communications devices/equipment and communications services).

2. Sectoral SME government regulatory body

No single government body specifically regulates only Thai ICT SMEs.

The Royal Thai Government is involved with SMEs through three main agencies: the Revenue Department of the Ministry of Finance, the Office for SME Promotion (OSMEP) of the Ministry of Industry, and the Institute for SME Development (ISMED) of the Ministry of Industry. The Revenue Department provides tax benefits to SMEs as well as other private-sector firms. The OSMEP develops policy, coordinates the plans and activities of various government agencies, and provides training, marketing, and financial support. The ISMED coordinates academic research and provides training, consulting, and certification services. Numerous other government agencies implement and support SME-related policies and programs (see section 9 for a longer list of implementing and supporting agencies).

The ICT sector is regulated by the Ministry of Information and Communications Technologies (MICT), the National Broadcasting and Telecommunications Commission (NBTC), and the NBTC's predecessor, the National Telecommunications Commission. The MICT and its subsidiary departments, agencies, and enterprises plans, promotes, develops, and provides overall regulation for the ICT sector. The NTC is currently being phased out, to be replaced by the NBTC. The NTC and the NTBC regulate frequencies, license radio, TV, and telecommunication businesses, and provide consumer protection.

Although not specifically focused on ICT SMEs, the Board of Investment (BOI) of the Ministry of Industry also promotes sophisticated technology-related enterprises, including software.

3. Sectoral SME policy (includes resource management and supply chain, if applicable)

The Thai government has both general policies to develop the ICT sector and SMEs, as well as specific policies focused on ICT SMEs.

Major policies and programs of the various agencies focused on SMEs include:

- Tax benefits, for instance reductions in corporate tax rates, beneficial depreciation rates, greater deductions for some types of expenses, and import duty exemptions on hardware.
- Human resources development, including training and certification.
- Innovation and intellectual property development , for instance new product development in the automotive parts and textiles sectors.
- Market development, including marketing databases and product/business showcases.

Various agencies also provide direct financial support, including subsidies for machinery refurbishment, international growth, and intellectual property registration. Credit guarantees are provided from the Thai Credit Guarantee (TCG) Corporation, a state-owned financial services company.

Major policy areas of the MICT and the NBTC include:

- Development of ICT infrastructure, including promoting 3G mobile broadband and increasing public WiFi access. ICT infrastructure is a critical part of the ICT supply chain.

- Use of ICT to improve business competitiveness, including increasing ICT utilization in the tourism, logistics, education, health, and agricultural sectors.
- Utilization of ICT in all regions, including the development of hundreds of community ICT learning centers and implementation of universal service obligations by communications firms.
- Development of ICT human resources, including development and implementation of general-skills training for ICT human resources (like English-language proficiency development) and skills certification in various specialties like systems analysis and information security. Human resources are one of the most critical resources in the ICT sector.

The MICT announced in November 2012 that it would work to improve ICT SME access to capital, although specific programs were not officially announced.

The BOI's policy is to improve national competitiveness by promoting investment and providing business support services, for instance by fast-tracking work permit processing of foreign employees.

4. Sectoral SME laws and regulation

No Thai law or regulation specifically applies to ICT SMEs.

Two major laws provide the legal framework for promotion of SMEs in general: the Tax Code of Thailand, and the Small and Medium Enterprises Promotion Act of B.E. 2543 (2000 A.D.). Dozens of Royal Decrees have been issued by successive governments to expand on the pre-existing Tax Code to specifically promote SMEs, for instance Royal Decrees 250, 426, 467, 471, 475, 479, 492 (providing reductions in corporate tax rates to eligible SMEs) and Royal Decrees 487, 460, 437, 428, 420, 297 (allowing special expense deductions for certain expenses).

The Small and Medium Enterprises Promotion Act established the OSMEP and the Small and Medium Enterprises Promotion Commission which provides oversight to the Office. It also authorized OSMEP and the Ministry of Interior to issue numerous regulations and announcements specifically affecting SMEs, for instance the Ministerial Regulation Defining the Number of Employees and the Amount of Fixed Assets of Small and Medium Enterprises of B.E. 2545 (2002 A.D.) and the Ministerial Announcement Regarding Target Industries for the Ministry of Industry to Give Special Attention To in Order to Promote Small and Medium Enterprises of B.E. 2555 (2012 A.D.).

Several laws provide the legal framework for government regulation and promotion of the ICT sector. The MICT was established by the Ministry and Department Reorganization Act of B.E. 2545 (2002 A.D.), which gave the MICT the authority to plan, promote, develop, and implement information and communication technology, meteorology, and statistics. Key Royal Decrees affecting the ICT sector include Royal Decrees to corporatize the Telephone

Organization of Thailand and the Communications Authority of Thailand into TOT Corporation PCL and CAT Telecom PCL (decreed in 2002 and 2003) and the Royal Decree Regarding the Powers, Rights, and Purpose of Thai Post Co., Ltd. of B.E 2544 (2003 A.D.). The NBTC was established by the Act on Organization to Assign Radio Frequency and to Regulate Broadcasting and Telecommunications Services B.E. 2553 (2010 A.D.). The NBTC's predecessor, the NTC was established by the Act on Organization to Assign Radio Frequency and to Regulate Broadcasting and Telecommunications Services B.E. 2543 (2000 A.D.).

The BOI was established by the Industrial Investment Promotion Act of B.E. 2508 (1965 A.D.). The law was amended several times in the following decades, most recently in 2001.

5. Sectoral SME industry status

5.1 Infrastructure

This section focuses on ICT infrastructure: the basic physical and virtual ICT assets used *in common* by most Thai enterprises of all sizes. It is not possible to specifically identify ICT infrastructure that is used exclusively by SMEs. For the penetration and access of ICT products and services by SMEs, see Section 5.5 (Penetration and Access).

Thailand's international internet bandwidth as of 2012 exceeded 470,000 Mbits/second, provided through at least 7 international gateway operators. International physical connectivity is provided through numerous systems, including the Asia Pacific Gateway and the Southeast Asia Japan Cable. Domestic bandwidth exceeded 1,000,000 Mbits/second provided through at least 7 domestic internet exchange points. Numerous internet service providers provide user access to the internet through a variety of technologies, including FTTX, XDSL, and ISDN. 8.5 million IPv4 addresses have been allocated to Thailand. As of 2012, approximately 21% of households had broadband internet access.

As of 2012, approximately 9% of the population has a fixed line telephone. Growth in fixed-line demand has lessoned due to the rise of mobile telephony. Fixed-line residential coverage varies from 93% of Bangkok Metropolis to 51% of the Northeast region. Thailand's mobile penetration is nearly universal, with penetration exceeding 100% of the population since 2010. Mobile base station coverage varies from nearly 100% of Bangkok Metropolis residential areas to above 90% of Northeast region residential areas. Mobile service is provided over various frequencies from 825 MHz to 2170 MHz. Over 143 million fixed and mobile telephone numbers have been allocated to various operators out of a total of 200 million planned telephone numbers.

There are 6 terrestrial television broadcasters in Thailand who, as of early 2013, had together over 200 broadcast sites. Thailand has 4 active television broadcast satellites. There are 524 licensed radio stations in Thailand: 204 AM stations, 334 FM stations, and 6 shortwave broadcasters. Thousands of unlicensed community radio stations also broadcast. Television and radio usage is extremely widespread, with 93% of households reporting having a television and 63.6% having a radio. The government has officially allocated the radiofrequency spectrum for various uses, ranging from 9 kHz to 275 GHz.

5.2 Offshore attractiveness factors

Several factors contribute to the attractiveness of Thailand as a target for investment and market expansion by offshore SMEs in the ICT sector.

- Large market. Thailand has a large consumer population with a substantial middle-class population in Bangkok.
- Strength of overall economy. Thailand's economy has many companies of all sizes which provide a good market for ICT SMEs. Thailand ranks 10th in the Economic Competitiveness Index and 27th in the World Competitiveness Index.
- Relatively high levels of ICT penetration and savvy. Smartphone and tablet penetration is growing quickly, especially among the young, and the next generation of Thai youth can be expected to be as savvy about ICT devices and services as youth anywhere in the developed world. Nearly all of Thailand's online population is a member of one or more social networks.
- Low cost of living/working and lifestyle. Many offshore ICT SME entrepreneurs are attracted to found companies and establish operations in Thailand because of the low cost of living/working and the attractive lifestyle. In Bangkok, broadband is relatively cheap, easily available, and well-connected to regional and international hubs of internet traffic. There is a vibrant and growing community of ICT SME entrepreneurs, incubators, and co-working spaces, and regular community events like Startup Weekend and Web Wednesday.
- Low cost of ICT human resources. According to the International Labor Organization, an average Thai programmer's nominal salary was 10 times less than his or her US equivalent and 3.5 times less than his or her Singaporean equivalent.

5.3 Tax and regulatory incentives

Some tax benefits for eligible SMEs include:

- No corporate tax on the first 150,000 baht of net profit. In 2012, this was raised to 300,000 baht, and was expected to benefit some 210,000 SMEs.
- No tax on dividends of SMEs
- Double expense deduction for educational expenses and R&D
- 40% immediate depreciation deduction for R&D equipment and computers

Note that the Revenue Department provides dozens of other tax benefits that apply in different ways to a wide variety of SMEs.

The BOI classifies electronics and software development as priority activities important to the country's prosperity. As such, it offers maximum investment incentives to software and electronics ventures. These include exemption of import duties on machinery, corporate income tax exemption for eight years, and 100% ownership of projects for foreign investors.

5.4 Size of the sector and the SME as a sub-sector of the sector

A survey by the National Science and Technology Development Agency found that the market value of the ICT sector in Thailand in 2011 was over 531,853 million baht, with the communications sub-sector accounting 77% of the market value (worth 408,846 million baht) and computer hardware accounting for another 18%. Software and software services accounted for the smallest portion, or 29,418 million baht. The survey did not identify how much of the above-stated market value came from SMEs.

Other data sources indicate that the SME sub-sector of the ICT sector is very small. The Ministry of Commerce's database of Thai companies contains 930 companies that self-identified themselves as being in the communications sub-sector i.e., they registered with the Ministry under Thai Standard Industrial Code (TSIC) 64200 - communications. The total 2011 sales of all those communications companies was 489,296 million baht. Only 61 of those companies had 2011 sales greater than 100 million baht and 85 of them had 2011 sales exceeding 50 million baht. The 844 companies with 2011 sales of less than 50 million baht had total sales of 4,548 million baht – 91% of the companies accounted for less than 1% of the total sales of the entire sub-sector. The 50 smallest companies had no more than 50,000 baht in revenue, and 332 of them had less than 1 million baht in revenue.

Note that the above analysis uses sales as the criteria for SME classification, rather than fixed assets or number of employees, since the Ministry of Commerce database does not include this information. Note also that due to inconsistencies in industrial classification, the IT sub-sector is extremely difficult to cleanly specify. For example, a company that most people would reasonably consider to be in the ICT sector like Microsoft (Thailand) Co. Ltd. self-identifies itself as having TSIC code 74140 (business and management consulting), sharing this code with firms that are obviously not part of the ICT sector, like SCG Building Materials, Banpu Power, McKinsey & Company, and TCC Capital Land. TSIC code 64200 (communications) is somewhat unique in that nearly all of the largest companies sharing the code are all well-known communications companies or subsidiaries of well-known communications companies.

5.5 Penetration and access

A National Statistical Office survey from 2012 found that while most SMEs had internet access, few employees actually used the internet as part of their work, and few companies had websites or conducted e-commerce (see below).

	% of companies with internet access	% of employees using internet in their work	% of companies having websites	% of companies having made online purchases
1-9 employees	16.8	2.3	5.4	2.4
10-15 employees	53.9	4	22.7	2.1
16-25 employees	60.4	5.2	27.6	6.8
26-30 employees	68.7	7	31.8	6.8
31-50	76.8	8.3	42.8	11.1

employees				
51-200 employees	88.9	18.1	55	12
>200 employees	97.6	74.2	72.5	15

Most SMEs with internet access had broadband access, the majority using xDSL. Relatively few SMEs used dialup, and even fewer used mobile devices.

	% of companies accessing internet through (more than one selection possible)					
	dialup	ISDN	xDSL	Cable	Other fixed broadband	Mobile
1-9 employees	2.1	2.3	9.2	0.5	2.9	1.2
10-15 employees	7.9	6.2	28.8	2.7	11.1	3.4
16-25 employees	8.1	7	32.2	4.7	13	4.9
26-30 employees	9.3	9	37.8	4.9	13.2	3.2
31-50 employees	11.8	8.8	43.7	8	15.6	4.8
51-200 employees	10.9	11	52.9	14.1	23.8	6.3
>200 employees	10.2	12.2	63.7	37.1	32	10.5

Nearly 100% of all Thai SMEs have access to either a fixed-line or mobile telephone.

6. Sectoral and SME sector performance

One way of objectively evaluating the business performance of firms in the ICT SME sector (as distinct from their growth, size, or economic impact) is to look at their profitability. The 930 Thai companies that self-identified themselves as being in the communications sector in the Ministry of Commerce's database of Thai companies and partnerships have a total 2011 net profit of 60,557 million baht, giving the total communications sector a weighted average return on total revenues of 12.4% (i.e., the total net profit of all 930 firms divided by the total revenues of all 930 firms was 12.4%). 316 of those companies reported net losses. The largest 26 firms with revenues exceeding 1 billion baht had an unweighted average profitability of 11% (i.e., the arithmetic mean of the profitability of each of the 26 companies was 11%). The 86 firms with revenues exceeding 50 million baht had an unweighted average profitability of 0%. There were 79 companies whose reported losses exceeded their sales, due to large investments, extraordinary losses, or tax evasion. Ignoring these outliers, the average weighted return on revenues of all companies in the sector was 13%, and the average unweighted return on revenues of the top 86 companies was 5%.

Of the 844 companies with 2011 revenues below 50 million baht, the unweighted average return on revenues was -36%. Removing outliers whose losses exceeded their revenues, the unweighted average return on revenues was 7% - not significantly different from the profitability of the largest companies.

Note that for due to inconsistent industrial classification of companies in the IT sector (as described in the last paragraph of Section 5.4), the performance of companies in the IT sector is extremely difficult to analyze.

A different perspective on the performance of SMEs can be gained by looking at the "birth" rate and the "death" rate of SMEs in each year. 50,776 SMEs were established in 2010, and this increased to 55,403 SMEs in 2011. 7,336 SMEs shut down operations in 2010, and this increased to 9,559 SMEs in 2011. Overall, this indicates that although thousands of SMEs shut down each year, this does not dull the ambitions of tens of thousands of entrepreneurs. Unfortunately, the Department of Trade Promotion, which handles company registrations, is not able to provide a detailed breakdown of registrations by sector.

7. Future direction of sector and SME subsector

The ICT and SME sectors have positive outlooks in the near future. Research firm International Data Corporation forecasted that the ICT market would expand by 9.8% in 2013, outpacing economic growth. The only dull spot in the ICT sector is expected to be in the PC market, but slow growth in this market is expected to be more than made up for by fast growth in tablets, smart phones, and other smart devices. Growth in these devices is expected to catalyze the development of digital content, data services, and mobile applications, particularly those that utilize the "cloud."

The SME sector is also expected to grow, but at a rate equal to expected economic growth (approximately 5%). Drivers for positive growth include healthy domestic investment and consumption, continued growth in Asian economies, and the government minimum wage stimulus package. In 2012, the Thai government started enforcing a national 300 baht per day minimum wage, despite vocal protests from employers. To offset this, the government also implemented a stimulus package that included an increase in the minimum profit for corporate income tax (expected to benefit some hundreds of thousands of SMEs) as well as 10 billion in soft loans to be made available through the government's Social Security Fund. SME sub-sectors that were expected to see the most growth in 2013 and the near future include communications, entertainment, construction, lifestyle products, alternative energy, agribusiness, health and beauty, and auto-parts.

8. SME finance facilities

The Thai government provides numerous finance facilities focused on SMEs. These include:

- Various loan facilities, including the village fund (which provides each village 1 million baht to be lent out to local SMEs), the SME Development Bank (a government-owned bank that focuses exclusively on SMEs), and the SME Promotion Fund (which provides loans to SMEs for HR development and efficiency improvement)

- The Small Business Credit Guarantee Corporation, a state-owned financial institution that provides guarantees to commercial lenders for the unsecured portions of loans to SMEs.
- Venture capital funds and venture capital fund promotion. The government has founded 3 venture capital funds with over $300 million baht in capital. Benefits provided to non-government venture capital funds include exemptions on taxes on stock transfers and dividends.
- SME-focused capital market. The Market for Alternative Investment provides an alternative to the Stock Exchange of Thailand for smaller and younger enterprises.

9. SME policy framework

The formal basis of all Thai economic policy is the 5-year Plan developed by the National Economic and Social Development Board (NESDB). Each government ministry and agency develops policies roughly in accordance with the 5-year Plan. The 11th Plan (2012-2016) defines an overall policy vision of a "happy society with equity, fairness and resilience," along with six development strategies: a just society; human development toward a sustainable lifelong learning society; strengthening the agricultural sector and providing energy and food security; restructuring the economy toward quality growth and sustainability; creating regional connectivity for social and economic stability; and managing natural resources and the environment for sustainability.

Within the Plan's context, OSMEP develops SME-focused policies, and also develops projects and action plans, allocates budgets, and implements SME promotion activities – often with the cooperation of other ministries and agencies. For example, during the 2003-2006 planning period, 211 projects were implemented: 71 by the Ministry of Industry, 42 by the Ministry of Commerce, 37 by the OSMEP itself, 21 by the Ministry of Science and Technology, and the rest by other ministries and agencies. The relationship between OSMEP and other organizations is summarized in the following table.

Mechanism	Organization	Role
Macro-policy setting mechanism	NESDB	Set overall policy
Policy setting mechanism	OSMEP	Create strategies, measures, and programs. Identify target sectors Provide information and suitable enabling factor.
Implementation mechanism	Ministry of Tourism and Sports, Ministry of Science and Technology, Ministry of Commerce, Ministry of	Implement specific programs

	Agriculture and Cooperatives, Ministry of Labor, Ministry of Industry, Ministry of Culture, Ministry of Public Health, Ministry of Finance, Department of Industrial Promotion (DIP), ISMED, Thailand Productivity Institute, and other agencies.	
Support mechanism	SME Bank, Small Business Credit Guarantee Corporation, SME Development Bank, SMEs VC funds, Board of Investment, Thai Industrial Standards Institute, Office of the Public Sector Development Commission, Department of Industrial Works, Industrial Estate Authority of Thailand, Federation of Thai Industries, Thai Chamber of Commerce, SMEs Entrepreneur Association	Support the implementation of specific programs

10. SME basic law

The basic law dealing with Thai SMEs is the Small and Medium Enterprises Promotion Act of B.E. 2543 (2000 A.D.). The Act established the OSMEP under the MOI, the Small and Medium Enterprises Promotion Commission and Executive Board which provides oversight to the Office, and describes the authority and responsibilities of the various bodies. These include developing the annual SME Current Status Report (commonly known as the White Paper), the SME Promotion Action Plan, SME promotion laws and regulations, and other activities as specified in the Act.

11. Historical share of industrial output

OSMEP research estimated that the manufacturing sector accounted for 3,273,092 million baht of the Thai GDP in 2008, of which SMEs accounted for 1,101,481 million baht (or 33.7% of the total manufacturing GDP). Of that, manufacturing of television and communication equipment, electrical machinery and equipment, and office equipment by SMEs accounted for 64,216 million baht (or 1.96% of total manufacturing GDP). By 2011,

manufacturing of these three sub-sectors by SMEs had grown to account for 70,252 million baht (but still just 1.96% of total manufacturing GDP).

The service sector is assumed to have no share of industrial output. For further details regarding ICT sector definitions, see section 14 (Annual gross product value SME sector and specific SME sector).

12. Share of employment

OSMEP research estimated that there were 11 million people by employed by SMEs in 2011, and another 2.1 million people employed by large companies. SMEs employed 83.9% of all employees. 2.6 million were estimated to work in retail enterprises, 1.2 million in wholesale enterprises, 3.9 million in service enterprises, and 3.3 million in manufacturing. OSMEP did not specifically estimate ICT SME employment.

A separate study by the National Statistical Office estimated that there were more than 493,000 people being employed by the ICT sector in 2011. Based on the overall employment statistics of OSMEP, this accounts for less than 4% of total employment. 55.6% of ICT sector employees worked in trade and services and another 44.3% worked in manufacturing. The NSO also did not specifically estimate ICT SME employment.

13. Sectoral and sector growth rate

According to OSMEP, in 2008 manufacturing of television and communication equipment, electrical machinery and equipment, and office equipment by SMEs accounted for 64,216 million baht of the Thai GDP. By 2011, manufacturing of these three sub-sectors by SMEs had grown to account for 70,252 million baht. The compounded annual growth rate of SMEs in these ICT manufacturing sub-sectors was equal to 3.04%.

In 2008, transport, telecommunication, entertainment and “other” services by SMEs accounted for 324,835 baht of the Thai GDP (or 14% of total services GDP). By 2011, services in these sub-sectors provided by SMEs had grown to account for 373,518 million baht (or 13.5% of total services GDP). The compounded annual growth rate of SMEs in these ICT services sub-sectors was equal to 4.77%.

For further details regarding sector definitions, see section 14 (Annual gross product value SME sector and specific SME sector).

14. Annual gross production value SME sector and specific SME sector (if available)

OSMEP research estimates that the contribution of SMEs to Thailand’s nominal gross domestic product (GDP) of various sectors as follows:

	Sectoral nominal GDP contribution, 2011 (THB billion)	
	Total sector contribution	Contribution of SMEs in the sector
Mining	385	69
Manufacturing	3,580	1,205
Construction	269	222
Trade and Maintenance	1,354	1,080
Private-sector services	2,776	1,272
Utilities	291	9

OSMEP does *not* break down the mining, construction, trade and maintenance, and utilities sectors into sub-sectors that would allow meaningful identification of ICT contribution.

OSMEP broke down the manufacturing sector into several sub-sectors, some of which could reasonably be defined as being ICT related. Manufacturing of television and communication equipment (ISIC code prefix 32) accounted for 225,717 million baht of GDP contribution, of which SMEs accounted for 25,406 million baht. Machinery and electric equipment (ISIC code prefix 31) accounted for 60,988 million baht, of which SMEs accounted for 34,199 million baht. Office equipment (ISIC code prefix 30) accounted for 183,059 million baht, of which SMEs accounted for 10,647 million baht. Note that defining the manufacturing ICT sub-sector using the above-mentioned ISIC codes makes the ICT sector largely overlap with the electronics sector.

OSMEP also broke down the services sector into several sub-sectors, some of which could reasonably be defined as being in the ICT sub-sector. Transportation and telecommunications services accounted for 716,321 million baht of GDP contribution, of which SMEs accounted for 266,821 million baht. Entertainment and "other" services (where "other" is defined as services not related to transport and telecommunications, hotels and restaurants, financial intermediaries, education, real estate, health, household services) account for 149,354 million baht, of which SMEs account for 106,697 million baht. SMEs in transportation, telecommunications, entertainment, and "other" services together account for 373,518 million baht in GDP contribution, or 29.4% of total SMEs contribution in the services sector and 13.5% of all services contribution. Note that defining the services ICT sub-sector using the above categories both over-counts (due to the inclusion of transportation services along with telecommunications) and under-counts (due to the exclusion of ICT service enterprises in the hotels and restaurants, financial intermediaries, education, real estate, health, and household services sub-sectors).

Note that the ISIC codes used in this section and in Sections 11 and 13 can not be directly mapped to the TSIC codes used in Sections 5.4 and 6.

15. Annual gross amount exported SME sector and specific SME sector (if available)

OSMEP research found that Thailand had a total of 10,539,446 million baht worth of exports in 2011, of which 3,859,587 million baht or 36.6% was by SMEs. Exports of products classified under the Harmonized Commodity Description and Coding System of 2007 of the World Customs Organization (HS 2007) with the 85 prefix (which includes electronics and communications devices) account for 13.29% of total exports, of which SMEs account for 4.19%. Products classified with the prefix 84 (which includes all types of machinery, as well as computers and software) account for 15.0% of total exports, of which SMEs account for 4.39%.

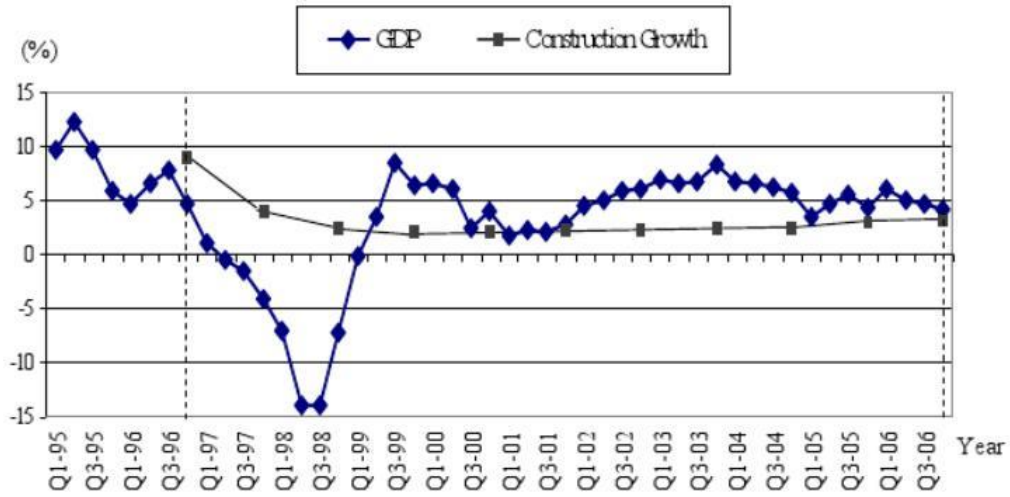
Note that these two HS 2007 prefixes will both over-count as well as under-count some products commonly considered to be ICTs. Also note that the HS2007 prefixes used in this section can not be directly mapped to the ISIC codes used in Sections 11, 13, and 14 or the TSIC codes used in Sections 5.4 and 6.

16. Annual gross amount domestic sales SME sector and specific SME sector (if available)

See Section 5.4 (Size of the sector and the SME as a sub-sector of the sector) for the market value of the ICT sector and the total sales of ICT SMEs.

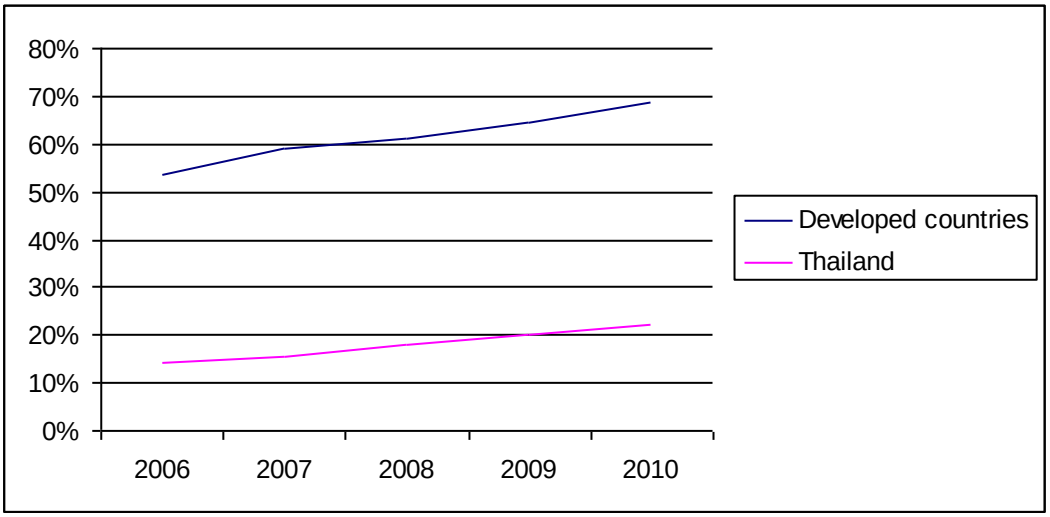
17. Other industry information relevant to the Builk Case Study

Table 1: Thailand GDP growth and construction growth, 1995-2006



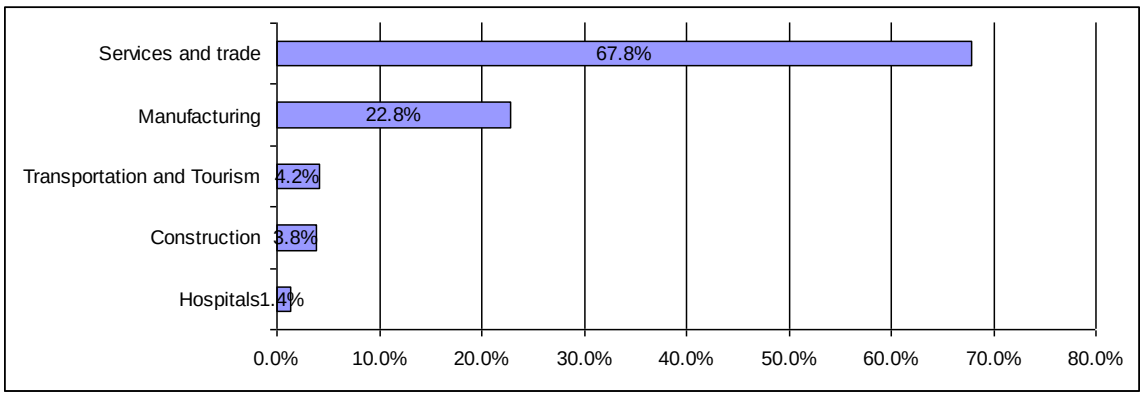
Source: Thailand National Economic and Social Development Board

Table 2: Thailand internet penetration, 2006-2010



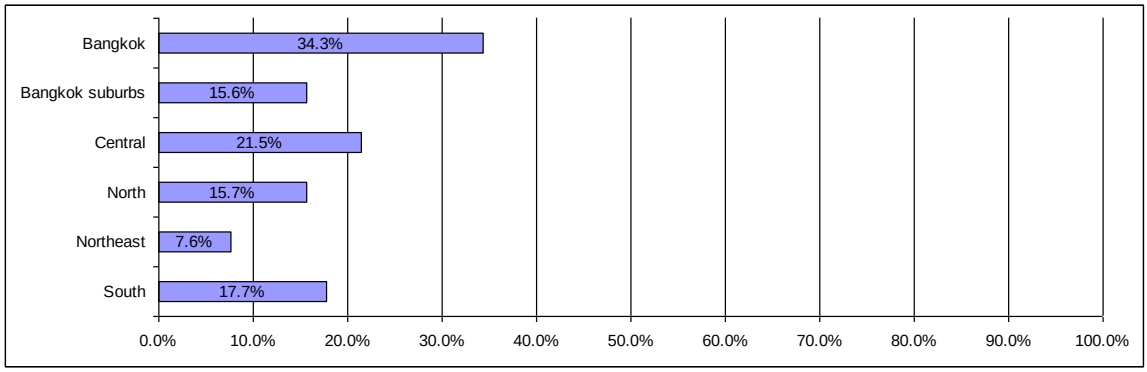
Source: Key Global Telecom Indicators for the World Telecommunication Service, ITU

Table 3: Thai ICT graduate employment, by sector, 2010



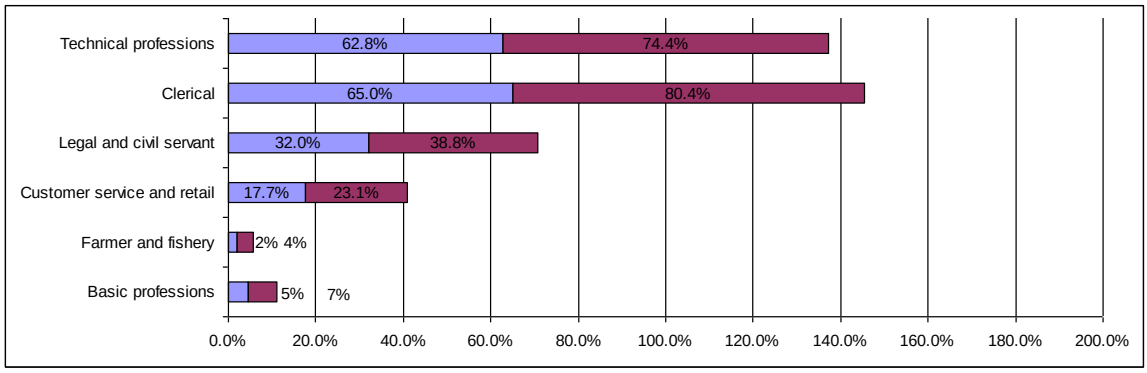
Source: Thailand National Statistics Office

Table 5: Thai workplaces that use the internet, by region, 2010



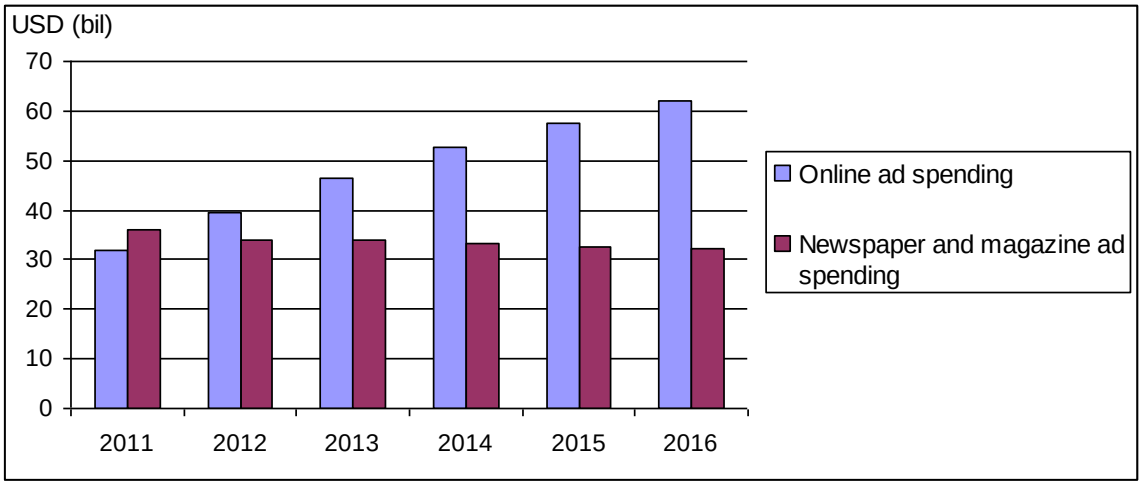
Source: Thailand National Statistics Office

Table 6: Workplace usage of computers and the internet, by job function, 2010



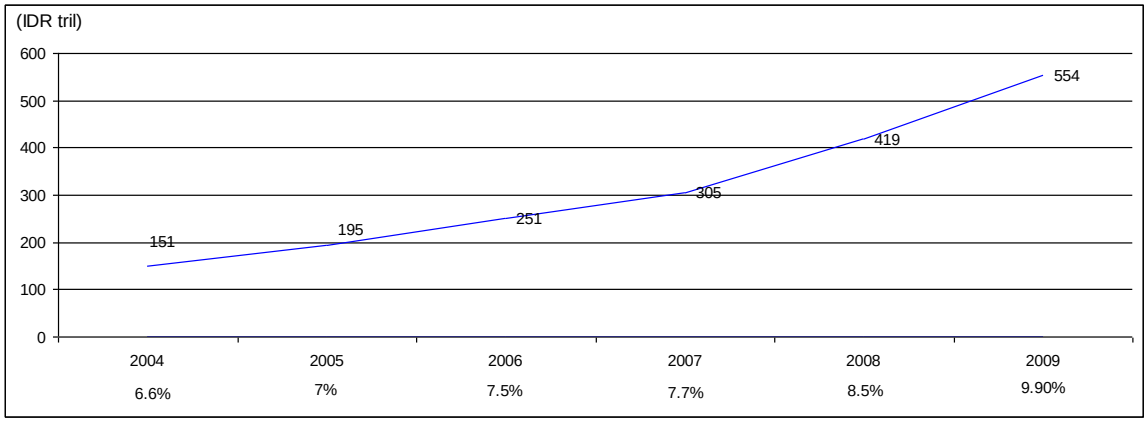
Source: Thailand National Statistics Office

Table 7: US online and traditional advertising spending, 2011-2016 (forecasted)



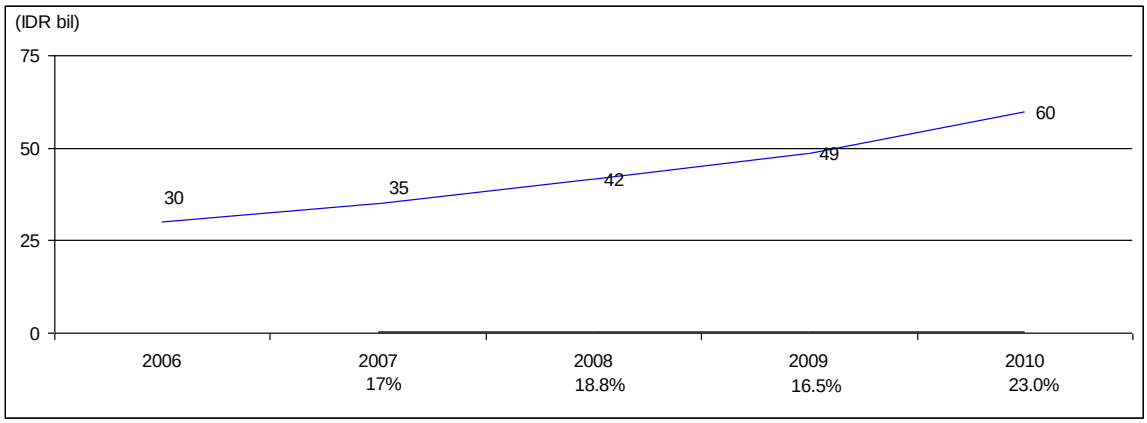
Source: eMarketer

Table 8: Indonesian GDP from construction, IDR tril, and percentage of total GDP from construction, 2004-2009



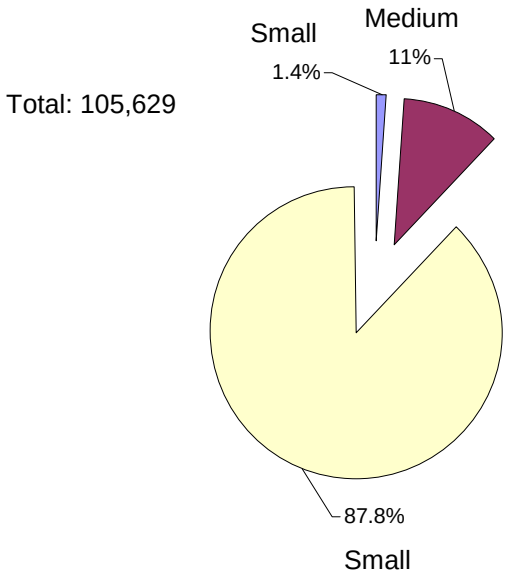
Source: Indonesia Central Bureau of Statistics

Table 9: Indonesia advertising spending, 2006-2010



Source: The Nielsen Company

Table 10: Distribution of Indonesian construction contracting firms, 2009



Source: Lembaga Pengembangan Jasa Konstruksi