



Inside Story

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APDIP e-Notes present an analytical overview of specific issues related to information and communication technologies for sustainable human development in the Asia-Pacific region. APDIP e-Notes are developed by the United Nations Development Programme's Asia-Pacific Development Information Programme based at the UNDP Regional Centre in Bangkok, Thailand. For more information, visit <http://www.apdip.net> or contact info@apdip.net

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Summary

Most governments have policies to encourage the growth of local small- and medium-enterprises (SMEs) because they can help alleviate poverty by increasing income levels and creating jobs. As the global economy becomes increasingly reliant on information communication technologies (ICTs) to receive, process, and send out information, SMEs in developing countries should not be left behind. Otherwise, they will lose out on opportunities to integrate into the global supply chain, bid for outsourcing businesses, and increase productivity.

This APDIP e-Note highlights three main ways ICTs can benefit SMEs: (1) increase productivity in the production process; (2) increase efficiency of internal business operations; and (3) connect SMEs more easily and cheaply to external contacts, whether locally or globally.

Despite the obvious and concrete benefits that ICTs can bring to SMEs, SMEs in most developing countries have been slow to adopt it. At the same time, most governments have not embedded ICTs into SME policy. This APDIP e-Note introduces examples of how Asian governments have launched initiatives to encourage and enable SMEs to use ICTs.

Hong Kong targets training at different sectors; Japan provides tax rebates for SMEs using ICTs; Republic of Korea provides a web forum for SMEs to showcase their products to an international market; Philippines is working to reduce the cost of international phone calls by deregulating Voice-over-Internet Protocol; and Singapore subsidizes computer training for SMEs employees and provides the foundation for developing secure e-payment services.

Introduction: Why are SMEs important to poverty reduction?

"The only way to reduce poverty in a sustainable way is to promote economic growth, through wealth and employment creation. In developing countries, SMEs are the major source of income, a breeding ground for entrepreneurs and a provider of employment."
~ United Nations Industrial Development Organization

The idea that SMEs can promote economic growth is not a novel one. While the definition of SMEs, which is usually based on employment, assets, or a combination of the two, varies from country to country,¹ SMEs usually make up a very significant part of the economy. In fact, SMEs in Hong Kong comprise 98 percent of total manufacturing establishments.² SMEs can fuel economic growth because it creates new jobs, expands the tax base, and is a driver of innovation.

How can governments support the growth of SMEs?

Since SMEs have great potential to drive economic growth, the best response for governments is to support SMEs by removing constraints and creating an enabling environment. Some policies to encourage the growth of SMEs include:

- Simplify registration and other legal processes
- Create incubators and science parks
- Provide business skills education
- Provide business consulting services

¹ In Thailand for example, SMEs are firms with less than 200 employees for labour intensive sectors and less than THB100 million (USD2.43 million) for capital intensive sectors. In Indonesia, SMEs are firms with less than 100 employees.

² APEC Centre for Technology Exchange and Training for SMEs <<http://www.actetsme.org/hong/hong98.htm>>

- Provide SME financing
- Help create SME linkages with larger companies
- Implement favourable tax and trade policies

What benefits do ICTs bring to SMEs?

The information revolution has transformed the way modern businesses are conducted. ICTs have enabled people to exchange large amounts of information quickly and cheaply. Those who can best receive, process, and innovate now become the winners.

We are in the era of the knowledge economy where those who have access to ICTs are closely connected to a virtual network regardless of geographic location, race, and gender.

Given this context, ICTs can benefit SMEs in three main ways: (1) increase productivity in the production process; (2) increase efficiency of internal business operations; and (3) connect SMEs more easily and cheaply to external contacts, whether locally or globally. This all falls under the term, *e-business*.³

Concrete examples of how ICTs can benefit SMEs include the following:

- Improve inventory management systems
- Decrease wastage in production processes
- Improve communication between different departments within the firm
- Improve accounting and budgeting practices
- Reduce communication costs and geographic barriers with global suppliers and clients
- Expand client base through e-marketing (e.g. websites, portals and mailing lists)
- Link to local and global supply chains and outsourcing opportunities
- Share and learn new business practices
- Facilitate capacity building of owners and employees through e-learning platforms
- Simplify government services such as business registration and filing taxes
- Introduce new methods of payment through e-commerce

Why should governments embed ICTs into SME policy?

Despite the obvious and concrete benefits that ICTs can bring to SMEs, SMEs in most developing countries have been slow to adopt it. Even in a technology savvy country such as the Republic of Korea, the industrial information index for its three million SMEs is still below 50 percent.⁴ SMEs are faced with constraints such as:

- Limited ICT literacy
- High fixed cost (purchasing hardware and software, disrupting existing business practices, and IT maintenance)
- Poor communication infrastructure leading to high costs of accessing ICTs
- Inexperience in integrating ICTs into the business process
- Undeveloped legal policy for electronic payment and security issues

Several countries have launched initiatives to overcome these obstacles:

Limited ICT literacy

Singapore launched an Infocomm Competency Programme from November 2003 to March 2005 to increase the computer literacy of its workforce. The programme subsidized SGD5.00 (USD3.00) per trainee per hour for SMEs on broad-based ICT courses such as Office applications, desktop publishing, workgroup applications, and webpage design.⁵

High fixed cost

To encourage SMEs to use ICT equipment to increase productivity, the Japanese government allows corporations to deduct up to 6 percent of total lease payment on brand new machines from annual income tax payments. The government also subsidizes up to 25 percent (with a cap at JPY2.5 million or USD22,000) lease payments for corporations in agribusiness management, lumber supply, and aquaculture.⁶

Poor communications infrastructure

The Philippines National Economic and Development Authority (NEDA) is pushing for the full deregulation of Voice-over-Internet Protocol (VoIP)⁷. In most parts of the world, governments are more inclined to ban VoIP because it is in direct competition with state-owned telecom companies and will decrease government revenues from incoming international call tariffs. NEDA however, firmly believes that VoIP can help spur "growth, investment, and jobs" because it can reduce charges for international calls by 75 percent.⁸ Skype, the leading programme for VoIP now has more than 27 million users worldwide, of which 30 percent, primarily SMEs, use it for business purposes.⁹

⁵National Infocomm Competency Centre, Singapore
<http://www.nicc.org.sg/products/icp_introduction.aspx>

⁶ Leasing Policies

<<http://www.leasing.or.jp/english/industry/effect1.html>>

⁷ VoIP (also called Internet telephony) is essentially a phone network that uses the Internet. It is the method by which voice is digitized and transmitted over Internet Protocol in digital packets rather than in the traditional circuit-committed protocols of the public switched telephone network.

⁸ NEDA Press Release, 22 February 2005

<http://www.neda.gov.ph/ads/press_releases/pr.asp?ID=559>

⁹ IT for SMEs: Cost savings by making the switch, UK Financial Times, 23 March 2005.

³ UNDP-APDIP's e-primer on e-commerce and e-business defines e-business as, "the transformation of an organization's processes to deliver additional customer value through the application of technologies, philosophies, and computing paradigm of the new economy." (p.6)

⁴ Survey by Korea Information Management Institute for SMEs.

Inexperience in integrating ICT into the business process

The Hong Kong Productivity Council¹⁰ sponsors various sector-specific programmes that help businesses increase productivity through better utilization of ICT resources. Their Enterprise Resource Planning Centre¹¹ provides training, consulting, and a software platform for its subscribers. In addition, the Vocational Training Council of Hong Kong provides e-learning courses by sector.¹²

The Korean government created the Korean Market Place Website¹³ to showcase products of Korean SMEs to global buyers. Local SMEs can easily connect to the global network by posting offers to buy or sell products. It currently hosts over 20,000 homepages of SMEs and e-catalogues of over 120,000 products.

Undeveloped legal policy for electronic payment and security issues

Between 1998 and 1999, the Singapore government passed the Electronic Transaction Act¹⁴ and Electronic Transactions Regulations¹⁵ to legitimize electronic signatures in the legal framework. This provided a foundation for key public and private sector leaders, including the Monetary Authority of Singapore, Cisco Systems, and Visa International, to develop more secure e-payment services over a public key infrastructure.

Conclusion

Since ICTs have obvious benefits for the growth of SMEs, governments should embed ICT components into SME policy. However, while some countries have incorporated ICTs into their SME policies, most countries still lack a comprehensive and focused approach. In addition, governments need to recognize that SMEs in different sectors use ICTs differently and will adopt them at different rates.

The willingness of SMEs to integrate e-business practices depends on how much they can directly improve their core business and how much the potential benefits outweigh the definite costs. A tour operator may be more likely to purchase computers and Internet connectivity in order to service its clients than a grocery store owner is willing to convert his/her cash register system into point of sale technology to better manage inventory.

By recognizing these differences and focusing their efforts on removing the constraints for SMEs to adopt ICTs, governments can play an important role in encouraging SMEs to use ICTs to both improve

business processes and link SMEs to the global economy.

~ Carol Chyau

Additional Reading

e-Commerce & e-Business, by Zorayda Ruth B. Andam (e-primer)
<http://eprimers.apdip.net/series/info-economy/e-comm-toc>

An Overview of ICT Policies and e-Strategies in the Asia-Pacific, by Emmanuel C. Lallana (ICT4D Series)
<http://www.apdip.net/publications/ict4d/OverviewICTPolicies.pdf>

Digital Review of Asia Pacific
<http://www.apdip.net/projects/dig-rev/>

Knowledge Economy Resources:
<http://www.apdip.net/resources/knowledge-economy>

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¹⁰Hong Kong Productivity Council <<http://www.hkpc.org>>

¹¹Hong Kong Enterprise Resource Planning Centre
<<http://www.e-factory.org>>

¹²Hong Kong Information Technology Training and Development Centre <<http://www.ittdc.org>>

¹³Korean Market Place <<http://eng.bestsme.com>>

¹⁴Legal Guide to the Electronic Transactions Act 1998.

¹⁵Salient Features of the Certification Authority Regulations.