• Cross-border issues, such as the recognition of transactions under laws of other ASEAN member-countries, certification services, improvement of delivery methods and customs facilitation; and

• The relatively low cost of labor, which implies that a shift to a comparatively capital intensive solution (including investments on the improvement of the physical and network infrastructure) is not apparent.

It is recognized that in the Information Age, Internet commerce is a powerful tool in the economic growth of developing countries. While there are indications of e-commerce patronage among large firms in developing countries, there seems to be little and negligible use of the Internet for commerce among small and medium sized firms. E-commerce promises better business for SMEs and sustainable economic development for developing countries. However, this is premised on strong political will and good governance, as well as on a responsible and supportive private sector within an effective policy framework. This primer seeks to provide policy guidelines toward this end.
The major different types of e-commerce are: business-to-business (B2B); business-to-consumer (B2C); business-to-government (B2G); consumer-to-consumer (C2C); and mobile commerce (m-commerce).

M-commerce (mobile commerce) is the buying and selling of goods and services through wireless technology—i.e., handheld devices such as cellular telephones and personal digital assistants (PDAs). Japan is seen as a global leader in m-commerce.

As content delivery over wireless devices becomes faster, more secure, and scalable, some believe that m-commerce will surpass wireline e-commerce as the method of choice for digital commerce transactions. This may well be true for the Asia-Pacific where there are more mobile phone users than there are Internet users.

Industries affected by m-commerce include:

- **Financial services**, including mobile banking (when customers use their handheld devices to access their accounts and pay their bills), as well as brokerage services (in which stock quotes can be displayed and trading conducted from the same handheld device);

- **Telecommunications**, in which service changes, bill payment and account reviews can all be conducted from the same handheld device;

- **Service/retail**, as consumers are given the ability to place and pay for orders on-the-fly; and

- **Information services**, which include the delivery of entertainment, financial news, sports figures and traffic updates to a single mobile device.17

Forrester Research predicts US$3.4 billion sales closed using PDA and cell phones by 2005 (See Table 3).

**Figure 5. Table 3. Forrester’s M-Commerce Sales Predictions, 2001–2005**

<table>
<thead>
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<th>Device</th>
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<td>PDA</td>
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<td>0.1</td>
<td>0.5</td>
<td>1.4</td>
<td>3.1</td>
</tr>
<tr>
<td>Cell phone</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>Sales influenced by device (in billions)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PDA</td>
<td>1.0</td>
<td>5.6</td>
<td>14.4</td>
<td>20.7</td>
<td>24.0</td>
</tr>
<tr>
<td>Cell Phone</td>
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<td>0.0</td>
<td>0.1</td>
<td>0.3</td>
<td>1.3</td>
</tr>
</tbody>
</table>

For this image is available under the terms of GNU Free Documentation License8 and Creative Commons Attribution License 2.59
• **Cash on delivery.** Many online transactions only involve submitting purchase orders online. Payment is by cash upon the delivery of the physical goods.

• **Bank payments.** After ordering goods online, payment is made by depositing cash into the bank account of the company from which the goods were ordered. Delivery is likewise done the conventional way.

### B. Electronic Payment Methods

- **Innovations affecting consumers**, include credit and debit cards, automated teller machines (ATMs), stored value cards, and e-banking.

- **Innovations enabling online commerce** are e-cash, e-checks, smart cards, and encrypted credit cards. These payment methods are not too popular in developing countries. They are employed by a few large companies in specific secured channels on a transaction basis.

- **Innovations affecting companies** pertain to payment mechanisms that banks provide their clients, including inter-bank transfers through automated clearing houses allowing payment by direct deposit.

### 4.3 What is an electronic payment system? Why is it important?

An electronic payment system (EPS) is a system of financial exchange between buyers and sellers in the online environment that is facilitated by a digital financial instrument (such as encrypted credit card numbers, electronic checks, e-cash, and e-checks) backed by a bank, an intermediary, or by legal tender.

EPS plays an important role in e-commerce because it closes the e-commerce loop. In developing countries, the underdeveloped electronic payments system is a serious impediment to the growth of e-commerce. In these countries, entrepreneurs are not able to accept credit card payments over the Internet due to legal and business concerns. The primary issue is transaction security.

The absence or inadequacy of legal infrastructures governing the operation of e-payments is also a concern. Hence, banks with e-banking operations employ service agreements between themselves and their clients.

The relatively undeveloped credit card industry in many developing countries is also a barrier to e-commerce. Only a small segment of the population can buy goods and services over the Internet due to the small credit card market base. There is also the problem of the requirement of “explicit consent” (i.e., a signature) by a card owner before a transaction is considered valid—a requirement that does not exist in the U.S. and in other developed countries.

**What is the confidence level of consumers in the use of an EPS?**

Many developing countries are still cash-based economies. Cash is the preferred mode of payment not only on account of security but also because of anonymity, which is useful
What are the trends and prospects for e-tailing?

Jupiter projects that e-tailing will grow to $37 billion by 2002. Another estimate is that the online market will grow 45% in 2001, reaching $65 billion. Profitability will vary sharply between Web-based, catalog-based and store-based retailers. There was also a marked reduction in customer acquisition costs for all online retailers from an average of $38 in 1999 to $29 in 2000.

An e-retail study conducted by Retail Forward showed that eight of its top 10 e-retailers were multi-channel—that is, they do not rely on online selling alone. Figure 7 shows the top 10 e-tailers by revenues generated online for the year 2001.

**Figure 7. Top 10 E-Retailers**

![Top 10 E-Retailers](image)

In addition, a study by the Boston Consulting Group and Shop.org revealed that the multi-channel retail market in the U.S. expanded by 72% from 1999 to 2002, vis-à-vis a compounded annual growth rate of 67.8% for the total online market for the years 1999-2002.

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2. [http://creativecommons.org/licenses/by/2.5/legalcode](http://creativecommons.org/licenses/by/2.5/legalcode)
4.5 What is online publishing? What are its most common applications?

Online publishing is the process of using computer and specific types of software to combine text and graphics to produce Web-based documents such as newsletters, online magazines and databases, brochures and other promotional materials, books, and the like, with the Internet as a medium for publication.

What are the benefits and advantages of online publishing to business?

Among the benefits of using online media are low-cost universal access, the independence of time and place, and ease of distribution. These are the reasons why the Internet is regarded as an effective marketing outreach medium and is often used to enhance information service.

What are the problems and issues in online publishing?

The problems in online publishing can be grouped into two categories: management challenges and public policy issues.

There are two major management issues:

The profit question, which seeks to address how an online presence can be turned into a profitable one and what kind of business model would result in the most revenue; and

The measurement issue, which pertains to the effectiveness of a Web site and the fairness of charges to advertisers.

The most common public policy issues have to do with copyright protection and censorship. Many publishers are prevented from publishing online because of inadequate copyright protection. An important question to be addressed is: How can existing copyright protections in the print environment be mapped onto the online environment? Most of the solutions are technological rather than legal. The more common technological solutions include encryption for paid subscribers, information usage meters on add-in circuit boards and sophisticated document headers that monitor the frequency and manner by which text is viewed and used.

In online marketing, there is the problem of unsolicited commercial e-mail or “spam mail.” Junk e-mail is not just annoying; it is also costly. Aside from displacing normal and useful e-mail, the major reason why spam mail is a big issue in online marketing is that significant costs are shifted from the sender of such mail to the recipient. Sending bulk junk e-mail is a lot cheaper compared to receiving the same. Junk e-mail consumes bandwidth (which an ISP purchases), making Internet access clients slower and thereby increasing the cost of Internet use.
**How is e-commerce useful to developing country entrepreneurs?**

There are at least five ways by which the Internet and e-commerce are useful for developing country entrepreneurs:

1. It facilitates the access of artisans and SMEs to world markets.
2. It facilitates the promotion and development of tourism of developing countries in a global scale.
3. It facilitates the marketing of agricultural and tropical products in the global market.
4. It provides avenues for firms in poorer countries to enter into B2B and B2G supply chains.
5. It assists service-providing enterprises in developing countries by allowing them to operate more efficiently and directly provide specific services to customers globally.

**Box 10. IFAT: Empowering the Agricultural Sector through B2C E-Commerce**

The International Federation for Alternative Trade (IFAT) is a collective effort to empower the agricultural sector of developing countries. It is composed of 100 organizations (including 70 organizations in developing countries) in 42 countries. Members of the organization collectively market about $200-400 million annually in handicrafts and agricultural products from lower income countries. In addition, IFAT provides assistance to developing country producers in terms of logistical support, quality control, packing and export.

**Box 11. Offshore Data Processing Centers: E-commerce at Work in the Service Sector**

Offshore data processing centers, which provide data transcription and “back office” functions to service enterprises such as insurance companies, airlines, credit card companies and banks, among others, are prevalent in developing countries and even in low-wage developed countries. In fact, customer support call centers of dot-coms and other ICT/e-commerce companies are considered one of the fastest growing components of offshore services in these countries. India and the Philippines pride themselves in being the major locations of offshore data entry and computer programming in Asia, with India having established a sophisticated software development capability with highly skilled personnel to support it.

Developing country SMEs in the services sector have expanded their market with the increased ability to transact directly with overseas or international customers and to advertise their services. This is especially true for small operators of tourism-related services. Tourism boards lend assistance in compiling lists of service providers by category in their Web sites.

In addition, for SMEs in developing countries the Internet is a quick, easy, reliable and inexpensive means for acquiring online technical support and software tools and applications, lodging technical inquiries, requesting repairs, and ordering replacement parts or new tooling.
of technology as one of the main barriers to using e-commerce. Government and private sector partnerships can engage in a campaign to disseminate information to SMEs about e-commerce policies, best practices, success stories, and opportunities and obstacles relating to the use of ICTs and e-commerce. These awareness campaigns could include free training courses and workshops on e-commerce, security and privacy, awards programs, and information centers to assist SMEs. Ultimately, this information campaign should come in the form of an overall e-commerce development strategy for the economy, focusing on its various innovative applications for SMEs.

**E-Government.** Government should be the lead-user of e-commerce if various business and private-sector related activities are to be prompted to move online. In effect, government becomes a positive influence. E-government can take the form of various online transactions such as company registration, taxation, applications for a variety of employee- and business-related requirements, and the like.

**Network Infrastructure and Localization of Content.** A developed national information infrastructure is a necessary, though not a sufficient, condition for e-commerce uptake of SMEs. Without reliable and inexpensive telecommunications and other information services, SMEs will not be able to go online. An important strategy in this regard is the construction of “telecenters” or electronic community centers that would serve as a community-shared access and connectivity platform especially in the rural areas (e.g., an electronic agri-information center which provides market information to farmers in rural areas). These telecenters can also be a venue for capacity building, skills enhancement, training, communications and content development.65 Government can also adopt agglomerative approaches to Internet use to reduce costs (e.g., export aggregators, such as B2B or B2C portals/exchanges for SMEs, which will facilitate trading not only SMEs and with other companies in the international market).

**Strengthening Consumer Protection.** Among the more common trust-related issues that SMEs take note of in deciding whether to engage in e-commerce are: where and how payment takes place (whether real or virtual); when settlement takes place (before, during or after the transaction); who settles; whether the transaction is B2B or B2C; and whether transaction can be traced. Generally, however, among e-commerce users in developing countries, including SMEs, there is very low willingness to provide sensitive financial information over the Internet.66 On the other hand, consumers have reservations about transacting with SMEs through the Internet due to the lack of a clear policy on returns and use of data. To address this concern, government can encourage companies/SMEs to make their privacy policy explicit in their Web sites.

A more comprehensive measure that government can undertake to ensure security in e-commerce transactions is the establishment of a Certification Authority, which verifies seller and buyer identities, examines transactions and security procedures, and issues digital certificates to those who are able to meet the set security standards. A good example of this government effort is Singapore’s Certification Authority, Netrust. This suggestion does not to discount the importance of private-driven security solutions such as Web sites like Hypermart, which host and build storefronts for SMEs while providing them a common system for secure payments.68

**Box. 15. Data Protection and Transaction Security**
6 About the Author

6.1 About the Author

Zorayda Ruth B. Andam is an incoming 5th year (senior) law student of the University of the Philippines. She has a bachelor's degree in Business Economics, also from the University of the Philippines. She is co-author of the e-primer: An Introduction to Electronic Commerce (2000) and SMEs and e-Commerce in Three Philippine Cities (April 2003). Ms. Andam was part of the USAID team that provided technical assistance to the Philippine Government in the development and passage of the country's e-Commerce Law.

59 Ibid.

60 For an extensive discussion of e-government initiatives, please refer to the primer on “EGovernment” by Patricia J. Pascual.

61 Adapted from the inputs and comments on this primer by Dr. Catherine Mann. For more information, refer to “Benchmarking e-Government: A Global Perspective” by UN-DPEPA and ASPA and “E-Government in the Philippines: Benchmarking Against Global Best Practices” by Emmanuel C. Lallana, Patricia J. Pascual and Edwin S. Soriano.


63 Lallana, Quimbo and Andam, 14.

64 Lallana, Pascual and Andam; Cf. SMEs and E-commerce: The Case of Indonesia.

65 Ibid.

66 Goldstein and O’Conner.

67 Firewalls act as a filter between a corporate network and the Internet, keeping the corporate network secure from intruders but allowing authenticated corporate users uninhibited access to the Internet (Source: Kalakota and Whinston).


69 Ibid.

70 Ibid.
10 Contributors

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5  Adrignola
1  Arthurvogel
1  Avicennasis
1  BRUTE
1  CarsracBot
2  Dirk Hünniger
1  JackPotte
8  Jomegat
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