

E-Commerce Readiness for SMEs in Developing Countries: A Guide for Development Professionals

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Table of Contents:	
Executive Summary	2
I. Introduction	5
Objectives	5
Defining e-Commerce	5
Organization of this Paper	6
II. Why Prepare SME's in Developing Countries for e-Commerce	8
Why Focus on Small and Medium Enterprises?	8
Potential Gains from e-Commerce	8
Business (and Government) Context for e-Commerce in Developing Countries	10
III. Putting SME e-Commerce Readiness in Context	13
Fit with AID Strategic Objectives	13
On-going Initiatives	13
Sector	14
Rural versus Urban Settings	14
Infrastructure Constraints	16
Considerations for Women-owned SME's	16
IV. e-Commerce Readiness: What SME's Need to Know	18
1. Why consider using e-commerce?	18
2. Method to Choose (or Not) to Use e-Commerce	19
3. Where: Business Processes	20
4. What: Electronic Commerce Techniques to Consider	23
5. Context: Sector, Infrastructure, Geography, More	24
6. If and When: How to Figure Out What Makes Sense	24
7. How: What It Will Take to Succeed?	25
8. Is It Working? Monitoring Results	26
9. Action Plan	26
V. Alternative Delivery Strategies	28
Training Needs Assessment	28
Considerations Regarding Delivery Strategies	28
VI. Tips for Success	31
Related to Approach to Training	31
Related to Training Content, Curriculum	31
VII. Helpful Resources	34
Figures	
<i>Figure 1: Examples of eCommerce Techniques Across Business Processes</i>	11
<i>Figure 2: Addressing Factors Affecting Women-Owned SME's</i>	17
<i>Figure 3: Current Position Questions for SME's</i>	21
<i>Figure 4: Electronic Commerce Techniques and Underlying Technological Options</i>	23

Executive Summary:

The emergence of electronic commerce over the past decade has radically transformed the economic landscape. For developing countries, the digital revolution offers unprecedented opportunities for economic growth and development, as entrepreneurs from Bangalore to Guadalajara to Dakar can testify.

Kofi A. Annan²

"It is difficult, and yes, it is possible." (Summing up how hard it is for SME's in developing countries to use electronic commerce successfully.)

Edward da Costa³

Despite the losses of so many businesses two years ago when the "dot-com bubble" burst, no serious business analyst disagrees that electronic commerce is steadily transforming how business is done, hence changing the business environment globally. Businesses everywhere need to understand if, when and how to use electronic commerce. Indeed, in some industries, businesses are learning now that this is no longer an option to consider, but a requirement for survival.

The reach of the underlying information and communication technologies (ICT) making electronic commerce possible is also causing unprecedented globalization of business. Businesses in developing countries will soon be affected as significantly as those elsewhere. Policymakers and advocates around the world are working to address this growing "digital divide."

Small and medium enterprises (SME's) are critical to the economies of all countries, including developing ones. They cannot be left behind and many are already demonstrating their entrepreneurial strength by grasping opportunities offered by electronic commerce. Anecdotes abound about craftspeople selling their wares on websites, Indian women providing transcription services via the Internet, and even rural farmers checking product prices via the Web. It is now time to more systematically offer the opportunities of electronic commerce to SME's in developing countries, using appropriate technologies and applications, so that the anecdotes no longer tell of the exceptions but illustrate an accelerating trend. This paper provides support to the development professional interested in doing so.

The objective of the paper is to provide useful guidance to USAID development professionals as they create ways to help SME's prepare for and use electronic commerce – to be "e-ready." This is not an "e-commerce primer." There are plenty of those available, some even focused on developing countries and the paper includes many useful references to such documents. Instead, it focuses on what SME's need to learn; how to tailor this to the context in which they operate; and the many ways such an e-readiness initiative can be delivered.

Why Prepare SME's in Developing Countries for e-Commerce. The paper uses a broad definition of electronic commerce, including the use of ICT in any way that improves a SME's relationships with customers or suppliers. This includes actually transacting business electronically -- orders, invoices, shipment documents – as well as using ICT for marketing, market research, customer service, finding potential customers and suppliers, offering entirely new products and services and more. These changes may mean more international business, but not necessarily. It may be easier and make much more sense to focus on domestic markets. Gains from electronic commerce can come from saving costs or increasing

² UNCTAD Secretariat, *E-Commerce and Development Report 2001*, United Nations Conference on Trade and Development, United Nations, New York and Geneva, 2001. (in Forward)

³ p. 129, da Costa, Eduardo, *Global E-Commerce Strategies for Small Businesses*, The MIT Press, Cambridge, MA, USA, 2001.

revenue. Changes can be made in the full range of business processes: from marketing and sales, payment, and product delivery through post-sale customer service

Putting SME e-Commerce Readiness in Context. SME's in developing countries face more challenges when trying to gain from electronic commerce than businesses in developed countries. This context includes constraints related to technical infrastructure (access and pricing), laws and regulations, limited logistics systems (roads, rail, and air), and more. SME's in rural areas face an additional set of obstacles as do women-owned SME's. The paper addresses each of these constraints and suggests ways to adapt an e-readiness initiative accordingly. Development professionals may want to focus on a particular context, e.g., sector, for e-readiness training, building on an area's strengths. For example, tourism or textile manufacturing may be good candidates for specific areas and are both industries where electronic commerce is having dramatic effects.

USAID's missions and bureaus are already addressing business training and support needs as part of their strategic objectives under the agency's economic growth, agricultural and trade pillar. In many cases, there will be opportunities to extend activities already under way to address SME e-readiness. In others, new initiatives may be warranted, leveraging the skills, resources, and programs of the private sector and governments.

e-Commerce Readiness: What SME's Need to Know. The paper suggests that any e-readiness initiative address nine topic areas framed as questions:

1. Why might I want to use e-commerce? What benefits might I achieve?
2. How do I determine if I can use electronic commerce to improve my business?
3. In what part(s) of a business's processes might e-commerce be incorporated?
4. What electronic commerce techniques should I consider and use?
5. What elements of my context affect how I can successfully use e-commerce?
6. How can I figure out whether the benefits outweigh the costs?
7. What will it take to succeed?
8. How can I monitor results to know I am achieving the benefits I expect?
9. What is my concrete action plan to achieve the results?

The training content recommended in this paper has a strong emphasis on business process and results, not technical issues. It incorporates a list of questions to help SME's and their trainers figure out if they have the business aptitude and interest in pursuing electronic commerce. The content also stresses the need for entrepreneurial drive and that any significant success will require changes to *how* business is done, something that is not easy but is possible. All content areas stress for SME's to consider ways to leverage their relationships with customers and suppliers and seek out partnerships that will help them. For each content area, the paper suggests useful resources to draw upon: documents, websites, and organizations.

Alternative Delivery Strategies. To determine how the e-readiness initiative should be delivered to the targeted SME's, a needs assessment should be conducted. This assessment will help define the target audience, their level of expertise and sophistication, their context, and what other programs are underway.

Ideally, any e-readiness initiative for SME's in developing countries will not be a static course with a beginning and end, but will incorporate on-going support for the SME's that have decided to use electronic commerce. The paper suggests a variety of delivery strategies and recommends combining them. Several approaches have been successful elsewhere in similar initiatives to prepare SME's for electronic commerce, such as classroom delivery supplemented by a website, training modules delivered via the Internet or CD's or even the radio, use of peer-to-peer support via e-mail or regular meetings, extending entrepreneurship or business courses already being offered, and taking full advantage of mentorship and technical volunteer services.

Any delivery strategy needs to include working closely with business associations, training institutes, and larger businesses that may have overlapping objectives. This will build on the support systems already in place for SME's and increase the likelihood of the initiative becoming self sustaining. Finally, this chapter of the paper urges that the development professional request feedback regularly from SME's, the private sector and business associations.

Tips for Success. This chapter of the paper provides tips related to approaches to training and to the content provided. It emphasizes incorporating many concrete examples into the content using whatever delivery approaches are chosen. It suggests offering optional modules on software applications and open source code and standards. It stresses that the training content should be clear about particular constraints and obstacles in a specific case and offer examples of how others have overcome them. Throughout, there is an emphasis on "pulling no punches" on how hard changing ones business can be; providing on-going support to those that are trying; and offering examples of others that have succeeded.

Useful Resources. The concluding chapter of the paper provides dozens of useful resources for the development professional to draw upon when designing and delivering an e-readiness initiative for SME's. It includes reference documents regarding electronic commerce trends and constraints in developing countries; organizations and websites that provide examples of successful SME's using electronic commerce in developing countries; and numerous examples of resources used by others when training SME's if, when and how to use electronic commerce successfully. Many of these resources are not static, given they are organizations and websites, so they will continue to be useful in the future.

I. Introduction:

The use of the Internet along with a range of other information and communications technologies (ICT) is transforming how business is done locally and globally. The effects are sometimes dramatic in developed countries. There are even a growing number of examples of the use of ICT for electronic commerce (e-commerce) in developing countries. The effects to date, though, are small compared to what is expected to occur in the next decades. Forecasters all agree that *how* business is done will be profoundly affected by ICT; they do not agree on *what* the exact effects will be. We do know that there are many ways businesses can benefit from electronic commerce – from serving current customers better and finding new customers and suppliers to improving the efficiency of their business processes. Businesses are also finding ways to expand the products and services they sell, how they sell them and how they charge for them.

Small and medium enterprises (SME's) in developing countries need to be able to figure out how, when, if, and where to use electronic commerce techniques to reap these gains. They face obstacles and constraints specific to the developing countries in which they operate such as higher costs to access the Internet and language barriers. A recent survey by the OECD⁴ found that one of the major obstacles to using electronic commerce was lack of understanding of electronic commerce techniques and the technology needed to use it. This paper helps address this critical obstacle. Figuring out electronic commerce is not optional for growing SME's in developing countries. It is becoming a prerequisite for competing well in markets, for dealing with other business partners and customers. Customer (business or consumer) expectations are changing. These effects may be less apparent in developing countries today, but are stark business reality in the markets in which businesses in developing countries strive to participate. Even domestic and regional markets in developing countries are beginning to feel these effects.

The purpose of this paper is to present to development professionals how they can help SME's in developing countries become “e-ready” -- learn what they need to know to leverage the potential of electronic commerce technologies and tools to improve business performance, grow and thrive.

Objectives

This paper has the following objectives:

- Provide useful guidance to USAID missions and bureaus as they develop and hone their strategic objectives for promoting economic growth by training and supporting SME's.
- Suggest specific areas of training that are needed by SME's, including how to identify e-commerce opportunities, implement them, and monitor their effects; business practices and pitfalls to avoid; how e-government initiatives may be leveraged by SME's; how to adapt the techniques for e-commerce to their business environment.
- Offer alternative approaches to improve the e-commerce readiness of the SME's, including classroom training and approaches beyond the classroom.
- Explore how SME e-commerce readiness might be enhanced by building on USAID strategic objectives (in economic development and elsewhere) and regional economic growth initiatives.
- Address the importance of the context for any “e-readiness” capacity building.
- Provide examples of successful approaches already in use for such capacity building.
- Address specific considerations related to the training of women-owned SME's.

Defining e-Commerce

⁴ Roundtable 3: *Realizing the Potential of Electronic Commerce for SMEs in the Global Economy*, Issues Paper, Bologna 2000 SME Conference Business Symposium, 2000.

e-Commerce. For the purposes of this paper, we use a broad definition of electronic commerce:
Any use of information and communications technology by a business that helps it improve its interactions with customers or suppliers.

A narrower definition of electronic commerce might be to limit it only to the electronic exchange of business transactions themselves, e.g., orders and invoices (with or without the use of a website). In fact, businesses in developing countries may be able to reap significant benefits from e-commerce defined more broadly even when legal, regulatory or infrastructure constraints may make it difficult or impossible for them to actually *transact business* electronically. For example, a business in a developing country might be able to use an e-marketplace or even Internet searches to figure out market prices for one of its products so it can compete better and win new customers.⁵ Many SME's can also gain a competitive edge by using the Internet well to do market research, find information on competitors and track down leads for new customers, or provide better customer support. These activities all fall under the broader definition of electronic commerce and could be termed "e-business".

This broad definition includes transacting business or exchanging business-related information between:

- B2C: business and consumers (their customers)
- B2B: business to business, e.g., where one business buys supplies from another or buys products to resale.
- G2B: businesses to government, where perhaps businesses conduct transactions electronically with government regarding various business licensing or reporting requirements or where businesses sell products or services to governments.

The "e" part of the definition we also broadly define, given the variations in technical and telecommunications infrastructure in developing countries. We will include the use of the Internet and websites powered by computers, but also the use of radio, mobile phones (sometimes used in what is referred to as "m-commerce"), voice-over-IP, CD-ROMs and even computer applications with no telecommunications component. All of these can and are being used in innovative ways by businesses in developing countries.

One final point related to definitions: The definition encompasses both domestic and international business. SME's may find beneficial ways to use e-commerce to enhance relationships with their *domestic* customers and suppliers as well as *internationally*.

Organization of this Paper:

This paper is organized as follows:

Chapter II addresses why it is important to prepare SME's specifically for e-commerce in developing countries; how they might gain from using e-commerce techniques; and what the business and e-government context is for e-commerce in developing countries.

Chapter III addresses a variety of issues to consider to make sure any activities to prepare SME's for e-commerce fit well within the context for these activities, including USAID's strategic objectives; any on-going initiatives of the national government, regional trade bodies or other key organizations; the geographic setting of the SME's (rural, urban); infrastructure constraints (legal, regulatory, technical); and considerations for women-owned SME's.

⁵ In fact, one study argues that this non-transactional use of e-marketplaces is the major benefit offered by e-marketplaces to businesses in developing countries. See Humphrey, 2002, number 22 in Chapter VII, Helpful Resources.

Chapter IV focuses on what specifically SME's need to know to figure out if, how, when and where to use e-commerce – the substance of any e-readiness initiative no matter what form it takes.

Chapter V emphasizes the importance of conducting a needs assessment to help design the appropriate e-readiness initiative and offers a variety of delivery strategies for training SME's in e-commerce, from traditional classroom sessions and web-based training to on-going support via websites, mentoring, taking advantage of public-private alliances and more.

Chapter VI provides tips for success and pitfalls to avoid regarding the approach used for training SME's and the e-readiness curriculum itself, no matter what delivery strategy chosen.

Finally, Chapter VII provides an annotated list of resources that a development professional will find useful when developing an e-readiness approach for SME's. From exemplary websites for SME's and sample training materials to analyses from international organizations, these resources will help the development professional keep current on relevant issues, find dozens of success stories to use, and leverage what others have prepared already to help SME's tackle electronic commerce.

II. Why Prepare SME's in Developing Countries for e-Commerce

Why Focus on Small and Medium Enterprises?

This paper focuses on small and medium enterprises for two key reasons. First, they are important to economic development in developing countries. Per the United Nations Conference on Trade and Development, SME's account for 60 to 70 percent of all employment in developing countries.⁶ Clearly, it is critical for such businesses to be prepared for and take full advantage of any benefits offered by electronic commerce.

The second reason to focus on SME's is that they are in a very good position to adapt to new technology; they may be able to adapt faster than larger companies that can be slowed by bureaucracy and stricter staffing hierarchies. E-commerce it may offer them comparatively more advantages to find new customers and suppliers especially in markets they have not easily been able to reach before – either internationally or regionally. Markets everywhere are globalizing partially due to the widespread use of the Internet. Electronic commerce can give SME's a better chance to compete in their markets and, indeed, in some cases, is or will soon become a competitive necessity for survival.⁷ The potential benefits of electronic commerce to “level the playing field” for SME's -- allowing them to compete better – are critical for them to understand and sort out.

When focusing on SME's e-readiness, it is also important to recognize the extra challenges they may face relative to larger businesses. For example, SME's tend to have more difficulty finding the capital needed to invest in new technology and diverting the staff time needed to figure out what aspects of electronic commerce make sense for them.

The European Union sees SME's as such a critical part of economic growth that it has launched a program to stimulate their use of the Internet as has the US government. And, as one can see in Chapter VII, there are already plenty of initiatives being launched to provide such help to SME's in developing countries as well.

This paper does not specifically address the e-readiness needs of micro-enterprises although most of what is suggested would apply to them. An e-readiness initiative specifically for these smallest firms will need some adaptations to reflect the particular challenges they face.

Potential Gains from e-Commerce

Businesses all over the world can benefit from electronic commerce techniques. They can use these techniques to:

- Find new customers – and partners and suppliers – domestically and internationally
- Serve current and new customers better, hence offering more value to them
- Improve the efficiency of their business processes
- Offer entirely new services and products – even start entirely new businesses.

⁶ UNCTAD, *Report of the Expert Meeting on Improving the Competitiveness of SMEs in Developing Countries: The Role of Finance, Including e-Finance to Enhance Enterprise Development*, Trade and Development Board, Sixth Session, Commission on Enterprise, Business Facilitation and Development Geneva, 2002, p. 1.

<http://www.unctad.org/en/docs/c3em13d3.en.pdf>

⁷The globalization of markets that is occurring works in two directions: it provides SME's in developing countries access to new markets but, at the same time, it allows newcomers from developed countries to enter markets in developing countries – markets that may have not been attractive in the past. Hence SME's in developing countries may face more competition on the home turf than in the past due to electronic commerce.

ICT offers unprecedented ways to establish new relationships between businesses across borders and markets and hence new opportunities for businesses in developing countries to grow and thrive within their regions and beyond. This is particularly important for SME's for it has been harder for them than larger enterprises to reach distant markets and find partners there.

Electronic commerce will not benefit all economic sectors to the same degree or in the same ways. It is most likely to transform and benefit sectors that have information-intensive activities and products or services that can be used or even delivered electronically. These sectors include financial services, education, professional services such as consulting, and government services. The tourism industry, of critical importance to many developing countries, is also being transformed because all the information needed for tourists to make their choices can be shared electronically. But there are many ways even sectors with heavy or fragile or volatile products can benefit by transforming how they do business with their customers and suppliers: setting prices, placing orders, improving many business processes such as product design (and collaboration), customer support, and product documentation distribution.

The florist industry is an example of one with very fragile and perishable products that uses e-commerce tools well adapting to electronic auctions between buyers in Amsterdam and sellers worldwide (including East Africa).⁸

Depending on a SME's sector, its move to electronic commerce may be a defensive one, just to keep pace with competitors (e.g., in tourism). In other cases, a SME will be able to use electronic commerce to get a jump on less innovative players in its sector by using ICT to forge new partnerships with e-commerce enabled businesses in other countries.⁹

Analysts agree that there are potential gains from e-commerce for businesses and there are many cases where such benefits have been achieved. They also agree that we are just at the beginning of seeing and understanding the changes in markets and businesses that will be enabled by the Internet and ICT.

The well publicized downfall of many once high flying "dot coms" in the past three years does not diminish the potential of electronic commerce, but makes it even more important that businesses try to avoid the mistakes of those pioneers. SME's in developing countries need the chance to learn from these mistakes. They also need the chance to take full advantage of the potential of electronic commerce to help them grow. They dare not be left behind as the business world is transformed by electronic commerce – the "digital divide" is all too real in many markets and growing.

Although much publicity is given to the "B2C" aspects of electronic commerce – the Amazon.com's and eBay's in the US – the greatest potential for gains from electronic commerce will come from "B2B" electronic commerce. Businesses in developing countries that make products that other businesses use are the first that should evaluate how they can take advantage of electronic commerce.

⁸ See Humphrey, John, *Business-to-business e-commerce and access to global markets: exclusive or inclusive outcomes?* Institute of Development Studies, Final Draft, January 2002. This paper's Chapter VII, Helpful References, number 22.)

⁹For an analysis of the impact of e-commerce on various industries, see Mann, Catherine L., "Electronic Commerce, Networked Readiness and Trade Competitiveness," in Kirkman, Geoffrey, P. K. Cornelius, J. D. Sachs, K. Schwab, *The Global Information Technology Report: Readiness for the Networked World*, World Economic Forum, New York, 2002. (This paper's Chapter VII, Helpful References, number 24.)

In summary, we will leave to others the task of documenting the evidence of gains from electronic commerce.¹⁰ For this paper, we can take it as a given that electronic commerce offers potentially significant gains to many SME's in developing countries and that now is the time to help them figure out where these gains may be and how to achieve them.

Business (and Government) Context for e-Commerce in Developing Countries

As shown in Figure 1 on the following page, businesses have many processes where e-commerce techniques might be applied. It is important to consider the full business cycle for possibilities as an e-readiness initiative is developed. Fundamentally, businesses' gains can come from two sources: adding more value for customers, hence increasing revenue, and reducing production and operational costs. (A third benefit may be to reduce risks by diversifying a business's customer base or product lines.) On the revenue or value side, a business can provide value to *more* customers or it can increase the value provided to each customer.

Businesses may realize gains from using e-commerce techniques in only one or many of these processes. It is important not to assume that e-commerce need be a holistic approach, embracing all processes. In many cases, for example, SME's in developing countries will face constraints making it too costly to tackle several processes. Even SME's in developed countries have to figure out which processes are worth tackling first or at all. Further, the Figure illustrates that a SME might consider e-commerce techniques in many processes, even if its product or service cannot be delivered electronically.

One further point, the last two business processes, "production" and "back-office," would be included in our broad definition of electronic commerce (any use of information and communications technology by a business that helps it improve its interactions with customers or suppliers) because these processes often involve interactions with suppliers. These processes may also simply fall into the broader category of "e-business."

The government context for e-commerce is as important for the development professional to understand as the business context. To do so, one can turn to many sources.¹¹ The government context for e-commerce affects businesses in three ways described below. The first addresses how the government itself uses e-commerce and the second and third address how government services, laws and regulations affect businesses trying to use e-commerce techniques.

First, in most countries, the government is one of the largest buyers of goods and services. Many governments also make sure to buy a share of their goods and services from domestic SME's. If a government begins using e-procurement techniques to do so, it can provide an important incentive, an example, and training to these SME's. (Several governments in developing countries are now implementing -- or planning -- e-commerce projects of their own for public procurements, e.g., Romania, the Philippines, Chile and Russia.)

¹⁰ See, for example, Reference 36 (Tetelman, Mike, *Foundations of Electronic Commerce for Development, A Model for Development Professionals*, Academy for Educational Development, forthcoming.) Also see pages 92-95 of Reference 24 for a summary of recent projections.

¹¹ For example, search www.dec.org for many USAID sponsored e-government projects. Two other helpful sites (that include helpful links to additional sites) are <http://www.developmentgateway.org/node/130619/> and <http://www1.worldbank.org/publicsector/egov/>

Figure 1: Examples of e-Commerce Techniques Across Business Processes

Business Process	Sample Sub-Processes	Examples of e-Commerce Techniques
Marketing and Sales	Market research -- learn more about potential customers and competitors	Web searches; examination of competitors' sites regarding pricing, problems, hiring, press releases, news articles, key management; information gathering from your Website visitors
	Various marketing techniques - reach more customers (or partners)	Website; email follow up to website visits; prospect database. Web-based trade lead services. Links with other sites. Joining, creating e-marketplace. Web events. One-to-one marketing techniques. Registering in directories; alliances with intermediaries, including re-sellers.
	Generating a sale – customer ready to buy	The Web or email: advertisements; product catalogs; descriptions of services, credentials, current customers
	Order placement	Electronic transaction processing
Payment	Invoicing	Electronic transaction processing
	Settlement	Electronic settlement technique; third-party service
Product/ Service Delivery	Set up	Electronic mail, electronic transaction. Shipment notification. Directly or via third party service or partner.
	Actual delivery	For electronic goods and services, electronic transmission
Customer service	Post-sales support including add-on sales	Web-based FAQs (Frequently Asked Questions) and database; Web-form; email.
Production	Creating the product or service sold. Enhance or offer new product, service.	For documents or electronic goods, Web-based collaboration, document sharing; email. Computer-aided design or remote production services.
	Buying materials (“direct” procurement)	Variety of e-procurement techniques including catalog orders; auctions, Requests for Information; tenders
Back-office	Buying supplies and services (“indirect” procurement)	Variety of e-procurement techniques including catalog orders; auctions, Requests for Information; tenders
	Financial Mgmt	Web-based computer application, either in-house or via a third party provider
	Payroll/Personnel	

Second, businesses turn to the government for a wide variety of services, from customs clearances to business licenses. Today the length of time needed to obtain these services and, in some cases, the lack of transparency in the process (and hence chance of corruption) can and often does thwart SMEs' efforts to compete internationally. To the extent that governments in developing countries can improve the efficiency and transparency of these business services, the better its SME's can compete. Various “e-government” techniques can be used to achieve these ends by making services more easily accessible to small businesses via the Internet coupled with more transparent and efficient processing. Some countries, such as Jamaica, have recognized this link between SME development and e-government initiatives in a USAID project.¹² More developing countries are recognizing this opportunity to help SME development.

¹² See The New Economy Project, Jamaica <http://www.neweconomyproject.com/aboutus.html>

Third, governments are beginning to focus on the many policy, regulatory and legal constraints facing businesses as they try to use e-commerce. For example, most laws governing commerce did not anticipate electronic transactions. Governments also have to clarify when and how electronic transactions and electronic signatures can be recognized as legal. Governments must also clarify legal jurisdiction in any disputes over electronic transactions: what laws govern such disputes? What jurisdiction has authority over them? Laws and regulations are also needed to address issues regarding data privacy, cybertaxation and how customs duties will be handled with such transactions. The development professional can turn to many sources of information on such legal and regulatory constraints.¹³ SME's in each developing country will face a different set of such constraints. It is critical to understand, though, that, despite these constraints, there will be opportunities to find anywhere. One must just know which obstacles to avoid.

¹³ See, for example, Chapter 6 of UNCTAD Secretariat, *E-Commerce and Development Report 2001*, United Nations Conference on Trade and Development, United Nations, New York and Geneva, 2001 (Internet version). Available in electronic form at http://www.unctad.org/e-commerce/docs/edr01_en/edr01_en.pdf

III. Putting SME e-Commerce Readiness in Context

Before designing an approach to increasing e-commerce readiness in a specific area, it is critical that the development professional consider the context for the initiative along several dimensions. This context setting applies to the *way e-readiness is delivered* (e.g., what technology and mode of delivery to use) as well as *the content of the training and support* provided. Without carefully considering these two dimensions of context, an e-commerce readiness initiative can fail or fall short of its potential benefits. Below six aspects of context are addressed: AID strategic objectives; on-going, non-USAID initiatives; industry or sector considerations; rural vs. urban settings; infrastructure constraints; and considerations for women-owned SME's.

Fit with AID Strategic Objectives

When considering any actions to improve SME e-commerce readiness, the development professional will need to first determine whether such activities fit within the strategic objectives for its sector, country or region. All USAID activities set strategic objectives (SO's) within the agency's three pillars. Training SME's in e-commerce techniques would most likely fit within strategic objectives for the Economic Growth, Agriculture and Trade Program Pillar. In fact, for 2002 and 2003, many USAID missions already have SO's focusing on strengthening SME's and providing business support services, including training; working with business associations; providing guidance on best practices; and providing technical assistance.

Improving SME e-commerce readiness may be well aligned with USAID strategic objectives focusing on agricultural development as well. For example, such training may complement programs to increase income generation from agriculture or to improve agricultural business management. E-commerce techniques can also help improve access to and timeliness of pricing information to agricultural cooperatives and may facilitate finding new customers or sources of seeds.

On-going Initiatives

Before determining if and, if so, how to tackle SME e-commerce readiness, the development professional also needs to consider on-going government, private sector, or public-private initiatives related to this area. Some of these may be supported by USAID and some not. It may be these initiatives can be leveraged or complemented to achieve greater benefits.

More and more countries are beginning to develop e-commerce strategies and changing laws and regulations to facilitate e-commerce. For example, the ASEAN (Association of Southeast Asian Nations) has an e-ASEAN Task Force that has endorsed a variety of e-commerce initiatives, including a public private regional marketplace initiative in Thailand, Malaysia and Singapore: WeASEAN (<http://www.weasean.com/>) as well as e-marketplaces in individual countries.¹⁴ Other countries are developing web-based development gateways, such as Kyrgyzstan <http://eng.gateway.kg/commer>.

A few examples of USAID supported activities that might be expanded to include SME e-readiness follow:

- BIZPRO, a project underway in Ukraine, Belarus and Moldova to help strengthen SME's. Among several activities, it provides technical assistance to business associations and business training. It has developed a training course, "The Internet for Business Associations."
- The JOBS (Job Opportunities and Business Support) Program in Bangladesh sponsored a major conference on e-commerce in Bangladesh in January 2001 and, since then, has

¹⁴ For a full list of e-commerce pilot projects endorsed by e-ASEAN, see <http://www.e-aseantf.org/content.php?cat=pilotpro&subcat=33&qj=>

facilitated review of Bangladesh's policies affecting e-commerce and commented on new legislation to address such issues.

- In Egypt, USAID is sponsoring a multi-pronged ICT project, including a program to promote e-commerce and e-government and support pilot projects.
- USAID has recently sponsored e-commerce surveys in Morocco and Sri Lanka.
- In the Philippines, USAID has helped to pass electronic commerce legislation.

Sector

An e-readiness initiative for SME's can be generic, that is, for businesses in all sectors, but if a few sectors dominate the target area, it is important to reflect that in the training initiative. For example, in some sectors, such as fresh produce, pharmaceuticals and textile manufacturing, the Internet is becoming essential for supply chain players. If a region plays (or could play) a critical role in this supply chain, a particular e-readiness program might be designed to focus on B2B e-commerce and the standards and e-commerce applications being used in that particular supply chain. But the procurement professional will have to consider all of the requirements of participating in such a supply chain. In Sri Lanka, a firm worked hard to get the Internet access needed but was thwarted by the slow road logistics, customs clearance and limited airfreight services to deliver the goods fast enough.¹⁵ No amount of e-commerce could solve this!

The USAID sponsored JOBS Program in Bangladesh provides a more successful example of a business development initiative that took advantage of e-commerce tools. Participants in the shoe export industry were taught how to use e-mail and websites -- as well as CD-ROMs with "virtual factory tours" -- to augment other activities to improve exports. E-commerce tools in combination with appropriate business development services resulted in a significant increase in shoe exports to Japan and skilled jobs for Bangladesh women and men.

To figure out the importance in various sectors, the development professional may have to do some footwork in advance with big sector players. Some sector analysis is also available. For example, see pp. 93-98, resource 24 in Chapter VII of this paper. This resource ranks exemplary industries for their "e-commerce intensity," with foods, consumer goods/textiles, pharmaceuticals, and electronic components ranking highest.

Rural versus Urban Settings

The development professional may also need to tailor the approach to SME e-readiness depending on whether the initiative will focus on rural or urban settings. Internet access and costs may differ significantly in urban and rural settings. Rural training may need to focus on lower bandwidth¹⁶ usage of the Internet and more shared access, although businesses in urban areas may benefit as well from such approaches.

As for any training in urban settings, it may be much easier for SME's to join together for periodic training sessions. In contrast, an approach for rural settings may best piggyback on other reasons businesses meet or congregate or more intensive training may be appropriate to minimize travel. Do not hesitate to incorporate the use of radio and CD's into the e-readiness approach. These may be most readily used in rural areas where telecommunications access and pricing is usually much more of a challenge than in urban areas. These two media can also have training material in local

¹⁵ p. 95, Kirkman, Geoffrey, P. K. Cornelius, J. D. Sachs, K. Schwab, *The Global Information Technology Report: Readiness for the Networked World*, World Economic Forum, New York, 2002.

¹⁶ Bandwidth refers to the amount of electronic data that can be transmitted over the Internet in a time period (KBS, kilobytes per second and bps, bits per second, are measures of bandwidth. Websites with pictures and animation require very high bandwidth to use easily; text e-mail requires far less. One's means of access to the Internet generally defines one's bandwidth. For example, if one uses a phone dial-up connection or a satellite connection, bandwidth will be much slower than if one has a high speed leased line.

languages, another benefit especially in rural areas where English is not spoken at all. A recent training initiative for poor, mostly illiterate farm women in rural Uganda illustrates the effective use of CD's. A simple CD was developed to teach these women ways to increase their economic livelihood. It was done on a CD that ran on a computer. It was in their own language and did not use sophisticated design or technology, just simple stick figures. It proved to be quite effective, with the women catching on fast to the technology, learning the material, and even moving to build a website for their products.¹⁷

Also, it is important not to focus on the most sophisticated technological approaches to use electronic commerce techniques effectively. Electronic mail, requiring the lowest telecommunications bandwidth, is, in many cases, the most effective technique for e-commerce, especially at the outset. Three recent surveys of SME's use of e-commerce in Asia reported the respondents found e-mail as an important tool for communicating with customers and suppliers *and* for reducing communications costs (versus fax or express delivery services).¹⁸

Electronic commerce can be especially important to the rural poor who are mostly farmers and surplus laborers. They can benefit because they depend on markets for their products or labor and electronic commerce and ICT may be able to help them know prices and demand better directly rather than via isolated middlemen or intermediaries. There is a role for middlemen in electronic commerce but their role becomes a more competitive one so they are only able to extract reasonable fees for their services rather than exorbitant ones out of line with the value they add.¹⁹ Innovative middlemen might be able to use the Internet to increase their roles, despite increased competition and price information.

SME e-readiness may be particularly critical in some rural areas where business applications used in community telecenters (where the community shares access to the Internet) may be able to help make community Internet access economically sustainable.²⁰ The more these telecenters can be paid for by commercial ventures rather than subsidies and user fees, the more sustainable they will be. This is of course not easy and calls for some adaptation from conventional thinking regarding electronic commerce models.²¹ In India, such rural telecenters have become sustainable by providing computer training, job availability information and even the capability to enable residents to register complaints against the government.

Drishtee,²² an Indian venture for rural areas, illustrates such adaptations. Drishtee uses mediated kiosks²³, which are themselves small businesses, in rural areas to sell a variety of information services to rural residents. For a fee, it offers information to farmers on current product prices and volumes. The kiosk operator operates the computer, software and network on behalf of the farmers. The venture also offers assistance with various government services (e.g., land records and even bank loans) via the Internet but combines these with agents in cities who retrieve the proper forms (not yet available via the Web) and have them delivered to the telecenters, "piggybacking" on traditional

¹⁷ The CD-ROM was developed by the International Women's Tribune Center (IWTC), partnering with IDRC/Eastern and Southern Africa Office (IDRC/Nairobi) and the others.

¹⁸ See the three studies covering Thailand, the Philippines and Indonesia as listed in Chapter VII of this paper as items 2, 4 and 25, all sponsored by the Asia Foundation

¹⁹ p. 67, Kirkman, Geoffrey, P. K. Cornelius, J. D. Sachs, K. Schwab, *The Global Information Technology Report: Readiness for the Networked World*, World Economic Forum, New York, 2002. Some sections available in electronic form: http://www.cid.harvard.edu/cr/gitrr_030202.html

²⁰ Op cit, pp. 76-88.

²¹ Op cit, pp. 80-87. Provides an insightful discussion of such initiatives.

²² See <http://www.drishtee.com/>.

²³ "Mediated kiosks" are computers with Internet access that are not used directly by the consumer. Rather, the trained entrepreneur "mediates" access by using the computer's applications on the consumer's behalf.

delivery services to the rural areas. Alternatively, the service recipient is notified by email when the papers are in order and can be picked up, avoiding numerous trips to check on the status of records. Another example illustrates how an adaptive approach to e-commerce for rural settings helps farmers grow their businesses. Ugandan women farmers use CDs to learn new farming practices that help them learn how to increase their crop yields and figure out new products to market and sell.²⁴ The project first tried to use the Internet to provide more information to the farmers but found that it was unavailable so a CD-ROM was developed to run on a computer as a “computer book.” This approach also addressed illiteracy of the farm women by allowing them to listen to and watch the CD as well as read.

While at the telecenter, the farmers can also check produce prices on the Internet, giving them better information on how to price their products. This case example also has a gender dimension. At first, the women’s husbands did not want to allow them to go to the telecenters, thinking it a waste of time. Only the success shown by some women convinced other husbands to allow their wives to go.

Infrastructure Constraints

To design a proper e-readiness initiative, the development professional must have a good understanding of the readiness of the particular developing country in terms of telecommunications network infrastructure and legal and regulatory constraints. The competitiveness and sophistication of the telecommunications network can affect electronic commerce options available for businesses and the adaptations (e.g., shared access points, use of satellite access) that will be necessary. Equally as important, there may be critical legal and regulatory constraints to recognize. These can range from taxation and currency exchange issues to the transparency and efficiency of customs clearance procedures or how the banking industry is regulated.

Luckily, there have been many assessments done of individual countries although they differ in scope and currency. Reference 1 in Chapter VII of this paper provides a useful summary of the sources and types of assessments available. Reference 21 also provides a summary network readiness index on many developing countries. This context is a critical step to prepare for e-readiness but should not take too much time given the attention these infrastructure constraints have received.

There are many ways to adapt the e-commerce tools used to telecommunications infrastructure constraints. The case, above, of the Ugandan women’s use of CD-ROMs for business training is one example. Using email via Internet access in telecenters is another. Internet access via satellite is still usually prohibitive due to costs and low bandwidth but this is an area to monitor closely for there are several initiatives focusing on making this approach more viable. For example, one company (WorldSpace) now offers one-way communication via satellite coupled with a satellite phone connection for responses. This adaptation is not yet being used for e-commerce related activities but serves as an example of how telecommunications resources can be combined in innovative ways to address significant infrastructure constraints.

Considerations for Women-owned SME’s

As with any economic development initiative, it is important to consider ways to ensure that women-owned SME’s are equal participants in any e-readiness initiative.

USAID’s Office of Women in Development sponsors studies and projects providing insights and recommendations for how to adapt development initiatives in general and IT initiatives specifically.

²⁴ BBC News (website), July 2, 2002. See <http://www.digitalopportunity.org/cgi-bin/index.cgi?root=2822&url=http%3A%2F%2Fnews%2Ebbc%2Eco%2Euk%2Fhi%2Fenglish%2Fsci%2Ftech%2Fnewsid%5F2078000%2F2078444%2Estm>

Based on analysis sponsored by this office,²⁵ we know that several factors affect women’s access to ICT, hence would constrain their opportunities -- even more than their male counterparts -- to exploit electronic commerce: literacy, education, language, time, geographical location of facilities, social and cultural norms and insufficient technical skills. These factors, especially social and cultural norms, will vary by country. The development professional should be well aware of how these factors affect their specific focus area and can tap broader initiatives to address them, such as education and development policy work. It is of course far more reasonable to address such factors on a policy basis and via broad educational initiatives than within one training program. Nevertheless, Figure 2 provides several examples of how the design of an e-readiness initiative for SME’s, might take such factors into consideration. Keep in mind that the e-readiness initiative may be working with women who already own or manage SME’s or women who plan to start one. To find examples of women using ICT in business, turn to the [USAID’s Office of Women in Development](#) and the [World Bank’s GenderNet](#). Also, as the e-readiness initiative is being designed, look for partnerships with business and professional associations that focus on women or have high female memberships.

Now that the context for e-readiness is set, the next chapter addresses what SME’s will need to know about e-commerce in their specific context.

Figure 2: Addressing Factors Affecting Women-Owned SME’s

Factor	Possible Adaptation in e-Readiness Initiative
Literacy	Coordination with basic literacy programs; providing alternatives to learning via written material; use CD’s with spoken instruction; illustrate Web-based user interfaces using icons rather than text.
Education	Build on any on-going programs to enhance girls’ education and exposure to ICT.
Time	In setting training and meeting times, be cognizant of women’s responsibilities in business and at home. For example, training might be scheduled so as not to require women to leave their homes for long periods of time or options could be provided for smaller workshops in many locations rather than larger ones in urban areas.
Geographical location of facilities	Incorporate options to reach women where they work and care for families; e.g., use CDs or radio as part of initiative.
Cultural and social norms	Adapting training options to recognize cultural and social norms including, where needed, providing women-only training. Use women as teachers, instructors, discussion leaders in the e-readiness initiative. Involve women in the development of the e-readiness approach so they can shape it so it will appeal to women participants. Include examples of women involved with (or owning) businesses using electronic commerce techniques. Find and use women as role models and in case studies of successes where possible.
Insufficient technical skills	Coordination with programs teaching basic technical skills; providing opportunities to use the technology “hands on”.

²⁵ Hafkin, Nancy and N. Taggart, *Gender, Information Technology, and Developing Countries: An Analytic Study*, for USAID Office of Women in Development, June 2001. <http://www.usaid.gov/wid/pubs/it01.htm> (Reference 14 in Chapter VII.)

IV. e-Commerce Readiness: What SMEs Need to Know

This chapter addresses the topics -- the content -- to cover in any e-readiness initiative for SME's in developing countries. For convenience, the topics are presented as if part of a curriculum for a classroom or web-based course. They can of course be addressed in other ways, depending on the delivery method chosen. Chapter V describes several alternative delivery strategies. How the topics are covered will vary by:

- The context for the SME's (described in Chapter III above)
- The approach chosen to building e-readiness capacity for SME's (Chapter V).

The content may be grouped in various ways depending on the intensity of the training effort and the level of sophistication (both business-wise and technically) of the SME's targeted. In many cases, the topics may need to be complemented by some basic or additional technical training.

What SME's need to know can be grouped into the information needed to answer nine categories or questions:

1. Why might I want to use e-commerce? What benefits might I achieve?
2. How do I determine if I can use electronic commerce to improve my business?
3. In what part(s) of a business's processes might e-commerce be incorporated?
4. What electronic commerce techniques should I consider and use?
5. What elements of my context affect how I can successfully use e-commerce?
6. How can I figure out whether the benefits outweigh the costs?
7. What will it take to succeed?
8. How can I monitor results to know I am achieving the benefits I expect?
9. What is my concrete action plan to achieve the results?

The categories are in a logical order and any approach to e-readiness probably needs to follow this logic: e.g., beginning with motivation ("why?"), moving through the other topics and including with a way to measure results and how to set an action plan. Some training approaches (and the ones recommended in this paper) will go far beyond setting the action plan and include on-going support for the SME's who choose to move forward with electronic commerce.

Each category is discussed in a section below. We do not attempt to cover the topics in great detail, but to provide guidance to development professional preparing for an e-readiness initiative for SME's. The references in Chapter VII provide plenty of information on the topics. To develop your SME e-readiness initiative, be sure to draw on the growing number of other such initiatives. Chapter VII lists numerous helpful documents and websites.

1. Why consider using e-commerce?

Why should I consider using e-commerce? What benefits might I achieve?

Any training initiative must begin with the reasons why the training is important to the participants. Indeed, this is needed in order to draw SME's to the initiative in the first place. This need not be a long portion but it needs to be powerful to make sure the SME's involved know why they are there and what they might get out of it.

- Trends in electronic commerce globally (e.g., showing increases in electronic transactions, business websites)
- Benefits achieved – a few examples, especially in sectors of interest to targeted SME's. Emphasize there are opportunities to reduce business costs and increase revenue.
- Link between growing globalization of markets and electronic commerce
- Emphasize the electronic commerce is changing how business is being done fundamentally.

Give some concrete examples from developed countries *and* from developing countries.

This section is not complete without including some caveats. Make clear that e-commerce is not simply a panacea (i.e., many companies have tried and failed at using e-commerce to grow) nor is it necessarily easy to use it successfully. Many SME's in developing countries have been reluctant to consider using electronic commerce because so much on the Web is in English and Internet access can be so expensive for them. Make sure to acknowledge these considerations. Emphasize that using e-commerce well will take investments in time and maybe capital -- and hard work figuring out how to change a business. Make sure to illustrate the upside but not to mislead the SME's into assuming this will be a simple task!

Include examples of SME's that have used ICT to start whole new businesses. There are many examples available of businesses in developing countries providing various remote services via the Internet or phone systems, e.g., transaction services, customer support, software development and remote access server maintenance. This, of course, requires substantial skills and training but, nevertheless, some SME's may have the interest and resources to tackle them individually or with partners.

Useful Resources (see Chapter VII): 8 (good statistics and sources thereof), 12, 24 (especially chapters 5 and 7), 33. Monitor various websites for good examples of e-commerce in developing countries, including resources (websites and documents) 25, 26, 28 (these three mention several African examples) 41, 42, 43, 44, 49, 50, 52 (LAC examples). For Asia, see 2, 4, and 25 provide some interesting Asian examples.

2. Method to Choose (or Not) to Use e-Commerce

How do I determine if I can use electronic commerce to improve my business?

This content category sets the stage for the rest of the content by outlining a practical method -- a set of steps -- for a SME to follow to figure out what (if any) electronic commerce initiative makes sense to pursue from a business perspective. It will set the tone for all of the training with an emphasis on business value, not technology.

This is a critical part of the content for it will help separate out the SME's that have no serious interest in electronic commerce. Many SME's -- in developed as well as developing countries -- are survivors with no interest or entrepreneurial energy to take on electronic commerce. Through this training, some SME's in this category may change but others will not.

At this point in the content, it will also be important to point out that SME's may need more technical training as well and where they can get such training once they figure out what technology might be helpful. (Only a small amount of technical training is included in this suggested content.) The methodology can be outlined as a set of questions to be answered. Depending on the time available, approach taken, and interest of the SME's, the time for this content can vary considerably. In any case -- even in a brief course -- the questions need to be posed to avoid having a SME move head-long into a poorly suited and perhaps expensive electronic commerce effort. The questions about available technology might be answered in advance by others preparing to provide the capacity building service.

The development professional may want to include the "Current Position" questions in Figure 3 below in a screening device to select trainees or sort them into training tracks. The remaining questions can be introduced at this point and answered later as the training advances. In fact, the remainder of the training content suggested in this chapter is designed to help the SME answer them.

Identifying e-Commerce Opportunities

The remainder of the training components will help the participants answer the following questions.

1. Given my answers to the above *Current Position* questions, what part(s) of the business process might I want to improve to make my business grow?
2. What underlying technologies for electronic commerce techniques are available to me either directly or on a shared basis?
3. What are electronic commerce trends in my sector, among my competitors – is my decision to use electronic commerce a competitive advantage or a defensive move to keep up?
4. What outside constraints do I have to deal with (legal, regulatory, other)?
5. Given my answers, does it make sense to define an electronic approach to try in one or more business process areas? If so, which ones? Do my target customers or suppliers have access to the electronic commerce technique I propose to use (e.g., Web, email)?
6. For the chosen areas, what are more details of how it would work? This calls for a plan to be outlined in enough detail to make a solid “go/no go” business decision.
7. Once a decision is made to pursue an electronic commerce process, what is my detailed plan of action?
8. How will I monitor success – or failure – so I know when to change plans?
10. In my completed action plan, who will do what, by when, with what resources, and where will I turn for on-going help if needed?

Useful Resources (see Chapter VII): p. 79 in Resource 29 offers a similar list of questions.

3. Where: Business Processes

Given my answers to the Current Position questions, what part(s) of my business process might I want to improve to make my business grow?

- Cover basic definitions: electronic commerce, B2B, B2C, G2B, m-commerce, any others that fit the context.

Figure 3: Current Position Questions for SME's

Current Position

These questions will help a SME understand more clearly what to do today and what its preferences are for growth and change.

1. What business are you in today?
 - What are your products and what are your services?
 - How perishable, fragile and heavy is your product?
 - Why do customers buy from you and not your competitors? (This will help define the real *value* you offer to your customers.)
 - Is your "brand" (the name of your company or product) well known in your market? Does it have a good reputation?
2. Who are your customers, suppliers, partners?
 - Where are your customers located? Who are your best customers and why? Are they other businesses or individual people?
 - Why do you lose customers today? For example, due to price, lack of convenient payment options for customers, product quality or features, post-sales customer support, cost or speed of delivery, unreliability in some part of your business?
 - Who are your major suppliers?
 - Who are your major competitors?
 - Do you work closely with any other businesses as partners or allies? List these.
 - Are any government agencies your major customers or suppliers? List these.
3. What are your primary costs, revenues, assets?
 - What are your primary costs and revenues today? (Just approximate by category.)
 - How many employees do you have? (Estimate)
 - Do you have any capital to invest - or do you know where you could obtain it if needed?
4. What do you think about your company's future?
 - Are you interested in growing your business?
 - If so, what do you think are your three biggest obstacles to growth?
 - Are you interested in considering international business - for suppliers or customers?
 - Do you think emigrants from your area would be interested in your product for themselves or for gifts?
 - Would you consider working with other businesses as partners, perhaps re-sellers?
5. What technology do you use today or could you have access to?
 - Phone, fax, computers, access to the Internet, mobile phone?
 - Do you (or would you) share access with others?
 - If you have access to the Internet, shared or not, do you know what kind of access: dial-up (phone), satellite, other? (If you don't know, just skip this question.)

- Define business processes, adapting and simplifying presentation depending on SME's sectors and approach to capacity building being used. (See the business process columns -- 2 left-hand columns -- in Figure 1 in Chapter II above.) One can also define the business process from the customer's perspective where a customer searches for what to buy; orders it; pays; and then has it delivered. The drawback of this alternative framework is that it overlooks where a company might also use e-commerce to improve production, buy its supplies, or amend other important internal processes.
- Make sure to include questions, where appropriate, prompting the SME's to consider new lines of business or extensions of their current products and services (e.g., transcription services, remote customer service).
- Distinguish between domestic and international commerce.
- Include discussion of business models: how to make money. Electronic commerce techniques sometimes prompt businesses to find new ways to make money, e.g., through subscription or fee based services or by offering their services to other businesses rather than to their traditional customers directly.

This is a critical section to focus the trainees' on business results. Take one or more trainees as examples and walk through their simplified business processes and review their responses to Current Position to illustrate how they might identify opportunities.

Incorporate plenty of examples of how other businesses have used electronic commerce successfully – from developed and developing countries. This can stimulate the trainees' to think more broadly. Here are a few examples from the developed world to use (there are many more). These examples are drawn from large companies but the points made regarding how business changes with e-commerce tools are directly relevant to any size company.

- Dell, a computer company, only sells directly to its customers via the Web, but a competitor, Compaq already had conventional distribution channels and had to figure out how these resellers would be affected before it starting selling on the Web. Compaq decided to disrupt its conventional channels and sell via the Web too. That was a big change in how it does business.
- Amazon.com is a famous web-based bookseller but it now uses its well regarded brand to sell much more than books – *and* it makes a significant amount of its revenue now not by selling books but by *reselling* its underlying infrastructure to other companies (even competitors!) that want to sell via the web.
- “On-line category managers” are growing quickly in the US. These are third-party distribution managers that specialize in particular product categories. They enable well-known brands (such as Circuit City and ToysRUs) to sell a full line of products via the web without having to stock them directly. Makes sense! This is a good example of how businesses can use other businesses well.
- Fedex, a freight package company, differentiated itself first by offering package tracking services via the Web. When that became a commodity, it turned to offering distribution services to other companies, enabling these companies to offer Fedex's tracking services directly to their customers.
- ViaSebrae²⁶ is a website in Brazil that offers an e-commerce solution to small businesses there. It is actually a joint venture between a unit of the Brazilian small and micro enterprise association and a for-profit software provider.

Useful Resources (see Chapter VII): 24, 29 (marketing especially), 30.

²⁶ See <http://www.digitaldividend.org/pdf/viasebrae.pdf>. This analysis (in 2001) points out that ViaSebrae needs to scale to become sustainability. As of 2002, the site was still operating (www.viasebrae.com.br) so perhaps it has met this goal of sustainability.

4. What: Electronic Commerce Techniques to Consider

Question: What underlying technologies for electronic commerce techniques are available to me either directly or on a shared basis?

This content area provides information on the types of technologies available today for conducting electronic commerce as we define it in this report. Figure 4 below provides an overview of this content. This content can be delivered in varying levels of detail.

Figure 4: Electronic Commerce Techniques and Underlying Technological Options

Electronic Commerce Technique	Internet Access		Instrument for Access		
	Slow	Medium to Fast	Computer (PC)	Mobile Phone	PDA (Personal Digital Assistant)
Electronic mail – simple	OK	OK	OK	OK	OK
Email – complex (e.g., attachments)		OK	OK		Maybe
Newsgroups, bulletin boards, chat rooms	OK	OK	OK	Maybe	OK
Information database (stand-alone or simple updates from time to time)	OK	OK	OK	Maybe if adapted	Maybe of adapted
Software applications (stand-alone or simple updates from time to time)	OK	OK	OK	Unlikely	Unlikely but possible
Website (brochureware, simple)	OK	OK	OK	Maybe if adapted	Maybe
Web-based applications (e.g., product ordering, shipment tracking)		OK	OK	Maybe if adapted	Maybe
Voice over Internet (Voice over IP)		OK	OK	Maybe	Maybe

At this point, the development professional can also provide the following information:

- Definitions of basic terms and perhaps a glossary. At least include definitions for electronic commerce, B2B, B2C, G2B, m-commerce. E-marketplace; types of buying (e.g., orders against catalogs with contract pricing; auctions, complex tenders); perhaps some settlement (payment) terms.
- An overview of what technologies are available to the SME's in their particular location: types, costs, access points, lead-time needed to obtain technology, support available, extent of use today. Figure 4 should be adapted to show techniques that are reasonably available in the trainee's area – and costs as well.
- Information on e-commerce software applications and service providers that serve local businesses. Include some basic information on the option to use open source software options as well. Open source software has several advantages for businesses in developing countries: no license fee; open code so many can learn how to modify it directly, rather than having to turn

back to the proprietary software owner; and the chance to share applications among users, even competitors.²⁷

Depending on the delivery method used, part of this content section can include some hands-on demonstrations of the various techniques, at least those available in the trainees' area. It is important that the trainees' have some direct exposure to the technology under consideration.

This is probably the section that will need the most customization by the development professional because of local infrastructure opportunities and constraints and specific opportunities that may be available. For example, some companies are developing ways to use low priced PDA (personal digital assistants) linked to software applications running remotely via satellite Internet connections priced by volume of data.²⁸ This is in the proposed pilot stage currently in Kenya, but illustrates how fast technological options are changing. If trainees happen to be able to piggyback on such pilots, they may have unusual opportunities to leverage others' investments in infrastructure.

Useful Resources (see Chapter VII): 12, 29 (marketing focus). Also track available technology available by region via 58 and any projects that might be leveraged in a specific region via resources 42 and 61.

5. Context: Sector, Infrastructure, Geography, More

What elements of my context affect how I can successfully use e-commerce?

The context for providing e-readiness to SME's was discussed in detail In Chapter III above. The development professional will need to review the specific context applicable to the proposed e-readiness trainees and adjust the content accordingly. For example, before any training is provided, the development professional will need to determine the status of any national e-commerce plans, any relevant private sector initiatives and any efforts to change regulations or laws to facilitate e-commerce. Similarly, the content of the training can be adapted to target the industries represented by the trainees and the availability of technical infrastructure to the trainees.

Useful Resources (see Chapter VII): 2 (Thailand), 3 (national policies to promote e-commerce in general and for SME's specifically; Europe, but much applicable to developing countries), 4 (Indonesia), 7 (Mexico), 8, 12 (Latin America, India, Africa, China), 24 (detailed e-readiness profiles of many developing countries and more), 25 (Philippines), 26 (Senegal, Mali, Ghana), 27 (Egypt, Morocco, Tunisian), 28 (Uganda, Kenya, Ethiopia), 32 (good example of a serious look at a country's electronic commerce context; Nepal).

6. If and When: How to Figure Out What Makes Sense

How can I figure out if the benefits of using electronic commerce outweigh the costs?

This is a critical step in the content of the e-readiness initiative: helping each SME make the "go-no go" decision regarding electronic commerce. This is of course a business decision in which each business has to weigh the estimated costs, risks and benefits of their idea(s) for using electronic

²⁷ Sources for information on open source software are <http://sourceforge.net/> and <http://www.apache.org/>. There are many more. Two companies that have built e-commerce and Web-based content management applications with open source code are eXtropia (<http://www.extropia.com/>) and Zope Corporation (<http://www.zope.com>).

²⁸ See description of proposed Village PDA project at www.villagepda.com/kenya or www.villagepda.com

commerce. The content of the e-readiness initiative can only give guidance to the SME on how to make the decision; pose the right questions; perhaps give some examples. The way the decision is made can vary considerably in sophistication – from a back-of-an-envelope calculation to elaborate spreadsheet assessments of different scenarios.

The outcome of this section of content will be a decision to continue figuring out how to use electronic commerce. Until the SME develops a more detailed plan (even if it is just a more complete list of steps), the real “go” decision cannot be made.

Here are a few considerations to include in addition to a basic financial analysis:

- Is the Diaspora from the SME’s country a potential asset? Potential customers for its product or service?
- Help collect information on any service providers, partners, sources of capital that might help the SME’s -- technical or business services. Suggest SME’s consider their key customers as partners.
- When estimating any increases in revenue, keep clearly in focus what value is being offered to customers.
- Make sure SME’s consider who they think they will be dealing with electronically. Can these players do so? Will they want to? What could induce them to do so?
- Consider brand – is the SME’s brand or reputation a strong asset to use in electronic commerce or is the SME better off piggybacking on someone else’s brand?
- Electronic commerce is not a project with a start, middle and end. It means a change in how a SME does business.
- To estimate risks, brainstorm on unintended consequences (good and bad) – hours of operation, response of customers and suppliers, technical factors.
- Look on both the cost (reducing them) and revenue side for benefits.
- Are there ways for SME’s to come together to share an electronic commerce innovation – a new service? A cooperative arrangement? Shared equipment and Internet access?
- Importantly, what are the SME’s priorities? Is this the right time to use electronic commerce even if it might bring benefits? Make sure each SME asks themselves: “what is the best use of my time and money?”
- When estimating the total costs of the technology to be used, make sure to include up-front costs, on-going (maintenance and repair), upgrades and start-up time.

Useful Resources (see Chapter VII): 8 (some detailed case studies of SME’s in global e-commerce).

7. How: What It Will Take to Succeed?

What will it take to succeed?

One author summed up what moving to electronic commerce was like for SME’s: “*It is difficult, and yes, it is possible.*”²⁹ This is the stage in the e-readiness initiative when the remaining SME’s (for many should have opted out by now) develop a concrete plan for how they will move to electronic commerce, answering questions that would be in an “e-business plan”:

- A short statement of the idea – the value to be added.
- How it will work – what business processes will change and how
- What needs to be developed, purchased, received from partners
- What it will cost and how will it be paid for.

²⁹ p. 129, da Costa, Eduardo, *Global E-Commerce Strategies for Small Businesses*, The MIT Press, Cambridge, MA, USA, 2001.

- What will be the revenue – and when
- Key risks – and critical success factors.

Clearly, not all participants in e-readiness initiatives will want to or be able to prepare a detailed e-business plan. And many of the changes may not warrant such work (e.g., if a SME simply wants to use the Web to conduct more market research). It is important to at least ask these questions and have them thought through to the extent possible.

Here are a few points to have the trainees consider:

- E-commerce will change how buyers and sellers deal with each other; how customers will want to be supported – during the purchase process or afterward. Do not overlook changes to customer support.
- When business processes change, employees have to be re-trained. Allow time for this.
- Make sure to allow for cross-training so that a SME is not overly dependent on one employee understanding new processes or technology.
- Where possible phase in changes. For example, with many customers payment can occur off-line even if an order is placed electronically.
- Figure out what security concerns your customers will have and address them.

Useful Resources (see Chapter VII): 8 and any basic book on developing a business plan.

8. Is It Working? Monitoring Results

How can I monitor results to make sure expected benefits are achieved?

It is all too easy for a SME to take the simplest e-commerce technique and end up wasting precious resources without seeing gains. SME's can ill afford this – especially those in developing countries. Hence, the e-readiness initiative needs to make sure that any SME moving ahead with an e-commerce initiative of any sort has a plan to monitor whether they are achieving expected results. Results should be monitored regularly using as simple measures as possible. If benefits are not being realized, the SME needs to change processes, take action. Here are some sample measures a SME want to use to measure expected results:

- Increased revenue per employee
- Increased customer satisfaction
- Reduced inventory
- Increased sales per salesperson
- Increased market share
- Increased profitability

9. Action Plan

What is my action plan for achieving results?

Each SME choosing an e-commerce initiative needs an action plan, beyond the e-business plan prepared above. This action plan covers who is doing what, by when, at what expense; dependencies between tasks and expected results. As with the e-business plan, this plan can take various forms – very simple or complex depending on the size of the initiative and the sophistication of the SME. Any e-readiness initiative, no matter what delivery method, should provide participants with information on where to get help as they move forward. Ideally, it should also include regular follow up with the participants – especially those that have chosen to proceed with an e-commerce initiative.

The follow up can include reviewing the results and the action plan, changes made in the plan, and ways to increase gains (or know when to stop).

V. Alternative Delivery Strategies

Training Needs Assessment

Before designing an e-readiness initiative, the development professional will need to conduct a training needs assessment – formally or informally. A needs assessment defines the gap between what the target audience knows and what they need to learn. It will help the development professional do the following:

- Identify the target audience – and its characteristics in terms of sectors, size, sophistication.
- Understand the knowledge, current usage, and skill level of this audience regarding technology, e-commerce, and general business management.
- Define the specific content needed.
- Determine the measurable goals of the training initiative.
- Take the technical, legal and regulatory context into account. For example, understand what technologies are available in the training area, at what costs? Gather examples of successes (or failures) to learn from.

There are a variety of techniques to use to conduct a needs assessment. Clearly, you will have to gather background information on the context for the e-readiness initiatives. Other techniques that may be helpful are the following:

- Use a survey of a sample of the target audience with structured questions. This can be done in writing or orally, perhaps as part of other activities with these SME's.
- Conduct a few focus groups, or group interviews, with a sample of SME's in different areas. This is good to do as well once you have a design in mind for the e-readiness initiative.
- Interview individual SME's, across skill levels and/or sectors.
- Interview related business and professional associations.

Once the e-readiness initiative is under way, it is important to return to the process of a needs assessment periodically to make sure goals are being met and adjustments are made in the initiative as needs change.

Considerations Regarding Delivery Strategies

An e-readiness initiative for SME's can be delivered using a combination of approaches. Given the content of the training, it would be better to select an approach that includes breaks (days if not weeks) between sessions so participants can do “homework” assignments and regular follow up with participants that decide to proceed with an e-commerce. Here are some approaches to consider using and combining. The ones that are starred (*) are noted as best practices by European countries focusing on moving SME's to e-commerce.³⁰

- Traditional classroom setting
- Web-based learning sessions using learning software adapted to slow Internet connections.
- Radio programs (This has been successful in Nepal to teach basic computer skills.³¹)
- Build on a course on entrepreneurship for SME's – adapting to e-commerce will take plenty of entrepreneurial skills.
- Incorporate optional technical sessions taught by technical associations or training institutions.
- E-mail lists to enable SME's to provide on-going support to each other.
- Mentorships. Look for ways to exploit training programs offered by other organizations such as the World Economic Forum's Business Initiative for Technology and Society (BITS) Africa.

³⁰ See reference 3 in Chapter VII of this paper.

³¹ Upadhaya, Gaurab Raj, “Marrying Radio with the Internet in Nepal,” InfoDev ICT Stories award winner, April 13, 2002. http://www.iicd.org/base/story_read?id=4899

BITS offers mentorships to African entrepreneurs (especially women starting a technology business).³²

- Provide e-mail service to answer questions for past (and future) trainees. (SCORE provides in US. These are often used by entrepreneurs in the US to support each other as they set up businesses.
- E-newsletters distributed by email and hard copy.
- Setting up an e-marketplace to “kick start” SME’s into electronic commerce may make sense as part of an e-readiness initiative.*³³
- Record some training sessions on CD’s and distribute to those that cannot attend sessions.
- Set up a web -site for the e-readiness training initiative to attract participants, provide useful links, articles, e-business news, different in-depth subjects each month; case examples of best practices, information on training available.* (As an example, see Austria’s site: www.ecaustria.at.) Or set up a website focusing on e-commerce in a particular industry important to your area.
- Offer a self-diagnostic tool to SME’s based on the “Current Position” questions in Chapter IV.*
- Develop start-up tool-kits to complement the training sessions. (Norway does this for its SME’s.) These could be tailored to specific industries or geographic areas.* These would be particularly useful for content areas 3 (what businesses processes to affect), 4 (what electronic commerce techniques to use), 6 (weighing benefits vs. costs), 7 (e-business plan) and 9 (action plan) in Chapter IV.
- Set up an e-commerce awards program to recognize innovative SME’s.*
- Use technical volunteers. Take advantage of technical volunteers for on-going help or help in other training sessions themselves. For example, Geekcorps (www.geekcorps.org) provides technical volunteers to help with projects now active in Ghana, Lebanon, Bulgaria, and Armenia. There are other sources of technical volunteer to take advantage of. See items 77-82 in the Chapter VII of this paper.
- Set up an e-commerce competence (or reference) center to demonstrate e-commerce techniques and answer any questions SME’s have.*
- Develop brochures and leaflets to complement other training approaches.*
- Work with or help set up business Incubators for SME’s choosing to start a new business or significantly re-make their current one.

In setting your approach, try to:

- Leverage partnerships with the private sector (they have the know-how), business associations, teaching institutions, technical schools or any other associations of SME’s.
- Meet with and work with women’s professional associations – or other organizations with women business owners as members.
- Provide support to several innovative approaches to e-readiness training by different organizations and then facilitate the replication of the successful ones in other areas.*
- Tap existing initiatives to train and support small and medium (and micro) enterprises. USAID already supports many such efforts that might be expanded to include electronic commerce opportunities. For example, USAID supports (or has supported) the AERA project in Thailand that offers financial workshops to SME’s. There are or have been similar programs in Albania, Romania, Guinea, Macedonia, Eritrea, Montenegro, Jordan (and many more) supported by USAID. Similarly, some of the many USAID supported initiatives to address

³² <http://www.africatechforum.com/projects.html#BITS> As of July 2002, the BITS programme was accepting no more applications but it may open up in the future.

³³ The development professional should be cautious before recommending the development or use of an e-marketplace, ensuring that benefits expected can be realized. Many do not deliver what their users expect. See Paré, 2002 (number 31 in Chapter VII of this paper).

micro-enterprise financing may be good candidates to leverage for an electronic commerce e-readiness initiative.

- Help such training programs to become self-financing where ever possible.

VI. Tips for Success

This chapter provides various tips to consider when designing and implementing an e-readiness initiative for SME's in developing countries.

Related to Approach to Training

- Understand what is already under way related to enterprise development in the target area sponsored by USAID or others. There are numerous examples of strategic objectives in all USAID regions related to promoting economic growth that include training components related to SME's and business advisory services. For example, USAID funds an on-going Croatian Enterprise Promotion Activity which has already done several tasks related to helping SME's grow, including. Many of the resources listed in Chapter VII provide numerous, concrete examples of actual e-commerce sites in developing countries. (See, for example, resource 35 in Chapter VII.)
- Tap local, regional and national public or private efforts to train SME's in good business practices and, where possible, for e-commerce specifically. For example, in Africa, the it@ab (Information Technology for African Business <http://www.it-ab.net/>) is an effort to coordinate IT training for business development in southern Africa.
- Strongly encourage use of standards – de facto or public – for electronic transactions, security, other aspects of electronic commerce. This will increase the chances that the application will interoperate with other web applications – owned by current or future partners or third-party services that may be useful (e.g., for payment).
- If the e-readiness initiative has a website, make sure to have other sites used by SME's provide links to it.
- “Chunk” training into manageable sizes -- a series of modules or sessions with different foci. For example, the first session could be an overview of possibilities, but then branch to more specifics in later sessions tailored by subject, level of expertise, sector.
- Beware of building on existing training institutions that are ambivalent, lack innovative spirit, even have disincentives to see e-commerce increase.
- Use the web – or whatever are the viable technologies in your area – as part of any training approach. Offer plenty of examples.
- Don't re-invent the wheel: beg, borrow, adapt. Use resource list in Chapter VII and USAID resources.
- Incorporate on-going support into the approach. SME's will need on-going support and may relish the chance to help each other out as they progress in a peer-to-peer support arrangement.
- Make sure to get feedback continuously from the trained SME's and business community.
- Make sure there is complementary technical training available for those that need or want it.
- Others will be offering related support to SME's; complement it, take full advantage of it.
- SME's value independent advice so make sure to provide it. Be careful with any perceived bias that may be introduced by partnerships or affiliations.
- Develop, if at all possible, a sustainable approach. This will be more likely if you leverage existing organizations.
- Share best practices with other USAID missions. (Keep track of new USAID documents on the topic in the Development Experience Clearinghouse at www.dec.org and post your own documents there in a timely manner.)

Related to Training Content, Curriculum

- Include plenty of diverse and concrete electronic commerce examples (successes and, if possible, failures or businesses that are not yet successes), especially showing different part of business process addressed; different types of technology used; innovative ways to overcome constraints. Demonstrate the actual e-commerce techniques.

- Recognize constraints; show how others have overcome them.
- Do not be too simplistic (and optimistic): e-commerce is rarely a simple change, easily done. A business cannot simply find more customers by using the Internet. The Internet does open up new possibilities – and new competition – and makes it easier for customers to find new suppliers. Unbridled optimism will simply lead to early discouragement. It will take businesses in developing countries with strong will and entrepreneurship to take good advantage of what e-commerce may offer them.
- Expose trainees to examples in developed as well as developing countries. Many SME's may be able to innovate based on such examples, making connections and leap to new ideas and approaches that will work in their context.
- Adapt support to regional and sectoral differences and remember even within a sector or region SME's are diverse.
- Keep in mind that access to (and the cost of) the enabling technology for e-commerce will vary significantly within any particular country. This has two implications: opportunities to use it will also vary significantly *and* e-readiness initiatives must be adapted to address these wide differences.
- The SME's wanting training will probably vary significantly in their understanding and current use of technology for electronic commerce. Be ready to tailor the curriculum to each level.³⁴
- Do not overemphasize technology. Focus on the business goal, e.g., “find new customers,” not “learn to use the Internet.” Also, emphasize entrepreneurship and sound business practices.
- Help the trainees avoid the tendency to build it themselves; leverage available software, know-how. Also, avoid “technology overkill.” Plan to phase in more technology when it can be used well.
- Do not try to cover computer and Internet know-how beyond overview of uses and some hands-on examples. Refer to other courses available or have a separate module on computer/telecom know-how
- Do not overemphasize B2C – or sales side of e-commerce. Look for ways to use ICT across business processes.
- Do not underemphasize the importance of strong involvement and interest from each business's leadership.
- Payments need not be included in a SME's e-commerce approach. Most e-commerce in developing countries still means handling the order on-line and handling payments off-line³⁵. This is the case also for many B2B transactions in developed countries. Electronic banking is increasing steadily, though, in many developing countries so monitor what banks in your region are offering such services and they may be able to participate in the SME training by describing their offerings.³⁶
- Changes to business processes will be at least as important as adopting the needed technology.
- Consider offering a complementary session only for interested SME's on e-commerce software applications and open source software options. This will be too detailed for many trainees.

³⁴ See in Chapter VII, Heeks, *Information and Communication Technology, A Handbook for Entrepreneurs in Developing Countries*. It provides a good example of how to tailor training to different levels.

³⁵ UNCTAD Secretariat, *E-Commerce and Development Report 2001*, United Nations Conference on Trade and Development, United Nations, New York and Geneva, 2001 (Internet version). Available in electronic form at http://www.unctad.org/ecommerce/docs/edr01_en/edr01_en.pdf

³⁶ A recent survey indicated that on-line banking is progressing in India with a million active on-line bankers (“Indian Net Users Embrace Online Banking,” *Times of India*, July 16, 2002. http://www.nua.ie/surveys/?f=VS&art_id=905358174&rel=true) and in Colombia, 7 percent of all deposits and payments are handled on-line (first half of 2002) up from 3 percent in the first half of 2001. (“Online Banking Transactions Up in Colombia,” *Business News America*, July 12, 2002.) http://www.nua.ie/surveys/index.cgi?f=VS&art_id=905358162&rel=true

- Emphasize that SME's should watch for (good and bad) unintended outcomes and address them appropriately by taking advantage of the positive ones and reducing the negative ones.

VII. Helpful Resources

Documents to Help Prepare for e-Commerce Training Initiatives

The resources below include some sample training materials for SME's as well as reference material on the topic of SME's and electronic commerce.

1. *Annual Report, Information for Development Program*, Global Information and Technologies Department, The World Bank, Washington, DC, USA, 2001. Includes a helpful and thorough overview of e-readiness assessments of developing countries; describes different approaches to assessments; references to sources of assessments.
2. Asia Foundation, *SMEs and E-Commerce*, 2002. (E-commerce in Thailand)
<http://www.asiafoundation.org/pdf/SME-e-commerce1-thailand.pdf>
3. *Benchmarking National and Regional E-Business Policies for SMEs, Final Report of the "E-business Policy Group*, Enterprise Directorate General, European Commission, Brussels, June 2002. Provides numerous examples (and best practices) from Europe of government sponsored SME e-business training and awareness initiatives.
<http://europa.eu.int/comm/enterprise/ict/policy/benchmarking/final-report.pdf>
4. CastleAsia, *SMEs and E-Commerce*, Prepared for the Asia Foundation, January 2002.
<http://www.asiafoundation.org/pdf/ID-SME-ecommerce-study-6-02.pdf> (E-Commerce in Indonesia)
5. Claessens, Stijn, T. Glaessner, and D. Klingebiel, *E-Finance in Emerging Markets: Is Leapfrogging Possible*, Financial Sector Discussion Paper No. 7, The World Bank, June 2001.
6. *Creating a Development Dynamic, Final Report of the Digital Opportunity Initiative*, Sponsored by a public-private partnership of Accenture, Markle Foundation, UNDP, July 2001.
7. Curry, James, O. Contreras, and M. Kenney, *The Internet and E-commerce Development in Mexico, BRIE Working Paper 144*, Berkeley Roundtable on the International Economy (BRIE), Berkeley, California, January 2002. <http://brie.berkeley.edu/~briewww/pubs/wp/wp144.pdf> Thorough and excellent analysis of electronic commerce.
8. da Costa, Eduardo, *Global E-Commerce Strategies for Small Businesses*, The MIT Press, Cambridge, MA, USA, 2001. Provides plenty of statistics (and sources thereof) regarding use of e-commerce. Focuses on challenges and opportunities of international e-commerce.
9. Duncombe, Richard and R. Heeks, *Enterprise Development and Information and Communication Technologies in Developing Countries: Supporting "ICT-Flyers"*, IDPM, University of Manchester, Manchester, UK, 2001. <http://idpm.man.ac.uk/idpm/ictflyer.html>
10. *E-Commerce: Accelerator for Development*, IDC Policy Brief Issue 14, Institute for Development Studies, University of Sussex, Brighton, UK, September 2001.
<http://www.ids.ac.uk/ids/bookshop/briefs/brief14.html>
11. *The Economic and Social Impact of Electronic Commerce, Preliminary Findings and Research Agenda*, Organisation for Economic Co-operation and Development, Paris, 1999.
<http://oecdpublications.gfi-nb.com/cgi-bin/OECDBookShop.storefront/EN/catalog/BO-1-13-xx>
12. *E-Commerce at the Grass Roots, Implications of a Wired Citizenry in Developing Nations*, prepared for the National Intelligence Council, Booz-Allen & Hamilton, Virginia, 2000.
13. *Electronic Commerce: Small Business Participation in Selected On-line Procurement Programs, Report to the Ranking Minority Member, Committee on Small Business and Entrepreneurship, US Senate*, US Government Accounting Office, Washington, DC, October 2001.
14. Enos, Lori, "What Small Biz Gets from the Web," *E-Commerce Times*, September 21, 2001.
<http://www.ecommercetimes.com/perl/story/13551.html>
15. Greenfield, Paul and J. Colton, APEC *e-Business: What Do Users Need?* Prepared for the Australian National Office for the Information Economy, Version 1.0, Canberra, Australia, September 2001.
http://www.noie.gov.au/Projects/international/APEC/CSIRO_report/exec_sum.htm

16. Heeks, Richard and R. Duncombe, *Information Technology and Small Enterprise, A Handbook for Enterprise Support Agencies in Developing Countries*, Version 1, IDPM, University of Manchester, UK, 2001. <http://idpm.man.ac.uk/idpm/esahbk.htm>
17. Hafkin, Nancy and N. Taggart, *Gender, Information Technology, and Developing Countries: An Analytic Study*, for USAID Office of Women in Development, June 2001. <http://www.usaid.gov/wid/pubs/it01.htm>
18. Heeks, Richard and R. Duncombe, *Information Technology and Communication Technology, A Handbook for Entrepreneurs in Developing Countries, Version 1*, IDPM, University of Manchester, UK, 2001. <http://idpm.man.ac.uk/idpm/enthbkb.pdf> Example of good, basic handbook for SMEs in developing countries with tailoring to fit the level of technology each business already uses.
19. Heeks, Richard and R. Duncombe, *Information Technology and Small Enterprise and Small Enterprise in Africa, Lessons from Botswana, Summary Final Report*, IDPM, University of Manchester, UK, January 2001. <http://idpm.man.ac.uk/idpm/ictsmesfr.pdf>
20. *Helping SMES to "Go Digital,"* Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions, Commission of the European Communities, Brussels, Belgium, 13.3.2002, COM (2001) 136 final. Available in electronic form at http://europa.eu.int/eur-lex/en/com/cnc/2001/com2001_0136en01.pdf
21. Hilbert, Martin R., *Latin America on its Path into the Digital Age: Where are We?* Division of Production, Productivity and Management of the Economic Commission for Latin America and the Caribbean of the United Nations, ECLAC, June 2001. <http://www.eclac.cl/publicaciones/DesarrolloProductivo/5/LCL1555P/Lcl1555.pdf>
22. Humphrey, John, *Business-to-business e-commerce and access to global markets: exclusive or inclusive outcomes?* Institute of Development Studies, Final Draft, January 2002. <http://www.gapresearch.org/production/jh%20b2b%20gvc%20final.pdf>
23. *Internet Access Technologies for SME*, Industry Canada, March 2002. Explains internet access technologies but of course, not all are available to developing countries. Web-based document. http://e-com.ic.gc.ca/english/research/rep/iat_sme_report.html
24. Kirkman, Geoffrey, P. K. Cornelius, J. D. Sachs, K. Schwab, *The Global Information Technology Report: Readiness for the Networked World*, World Economic Forum, New York, 2002. Some sections available in electronic form: http://www.cid.harvard.edu/cr/gitrr_030202.html
25. Lallana, Emmanuel C., P. Pascual, Z R. Andam, *SMEs and e-Commerce in Three Philippine Cities*, prepared for the Asia Foundation, April 2002. <http://www.asiafoundation.org/pdf/SMEs%20&%20eCommerce%20Philippines-7-02.pdf>
26. mC² *The ECA/IDRC Pan-African Initiative on e-Commerce*. Prepared by Mullin Consulting Ltd, April 2001. Telecenters emphasized. Summarizes e-commerce specific initiatives, barriers by country (Senegal, Mali, Ghana only).
27. mC² *The ECA/IDRC Pan-African Initiative on e-Commerce, Regional Report on East Africa*. Prepared by Mullin Consulting Ltd, April 2001. Summarizes e-commerce specific initiatives, barriers by country (Egypt, Tunisia, Morocco).
28. mC² *The ECA/IDRC Pan-African Initiative on e-Commerce, Regional Report on West Africa*. Prepared by Mullin Consulting Ltd, April 2001. Telecenters emphasized. Summarizes e-commerce specific initiatives, barriers by country (Uganda, Kenya, Ethiopia).
29. Monnier, Philippe D., *Cybermarketing. A Guide for Managers in Developing Countries*, Technical Paper, International Trade Center, UNCTAD/WTO, September 1999. Offers much concrete information that can help trainers on e-marketing topic. Organized as a course might be on the topic. Includes links to good examples of e-marketing, matrices comparing technologies, and much more to help the development professional.
30. Osterwalder, Alexander, M. Rossi, M. Dong, *The Business Model Handbook for Developing Countries*, Ecole des HEC, University of Lausanne, Switzerland (no date). <http://inforge.unil.ch/aosterwa/Documents/InternetInEmergingMarkets/Publications/BMH4DC.pdf>

31. Paré, Daniel J., "B2B E-commerce Services and Developing Countries: Disentangling Myth from Reality," Prepared for Association of Internet Researchers (AoIR) International Conference, Internet Research 3.0: Net/Work/Theory, Maastricht, the Netherlands, October 13-16, 2002. <http://www.gapresearch.org/production/DraftAOIR3.pdf>
32. Press, Larry, S. Goodman, T. Kelly and M. Minges, "Electronic Commerce in Nepal," *e-OTI: OnTheInternet*, March/April, 2001. <http://www.isoc.org/oti/articles/0401/press.html>
33. Rao, Madanmohan, "IP Telephony to Have a Dramatic Impact on Asian Voice, Data Communications Markets," *e-OTI: OnTheInternet*, May/June 2001. <http://www.isoc.org/oti/printversions/0601rao3.html>
34. *Roundtable 3: Realizing the Potential of Electronic Commerce for SMEs in the Global Economy*, Issues Paper, Bologna 2000 SME Conference Business Symposium, 2000.
35. *SME Retailing on the Internet*, Industry Canada, Ottawa, Canada, 2002. Written for Canadian SME's but includes information useful to develop training materials for SME's in developing countries, including a retailing "showcase" with links to exemplary sites and a questionnaire to analyze e-retailing potential. Web-based document. <http://strategis.ic.gc.ca/SSG/ir01688e.html>
36. Tetelman, Mike, *Foundations of Electronic Commerce for Development, A Model for Development Professionals*, Academy for Educational Development, (forthcoming).
37. Tigre, Paulo Bastos and D. O'Connor, *Policies and Institutions for E-Commerce Readiness: What Can Developing Countries Learn from OECD Experience?* Technical Papers No. 189, OECD Development Centre, CD/DOC(2002)01, April 2002. Available in electronic form at <http://www.oecd.org/pdf/M00028000/M00028358.pdf>
38. UNCTAD Secretariat, *E-Commerce and Development Report 2001*, United Nations Conference on Trade and Development, United Nations, New York and Geneva, 2001 (Internet version). Available in electronic form at http://www.unctad.org/ecommerce/docs/edr01_en/edr01_en.pdf

Useful Websites

39. Asia-Pacific Economic Cooperation (APEC) Electronic Commerce Steering Group. Especially useful to development professionals in Asia-Pacific region to keep updated on issues, progress related to electronic commerce. <http://www.ita.doc.gov/td/industry/otea/ecommerce/apec/>
40. BIZPRO, USAID sponsored economic development project website with useful links related to SME training (including web-based). <http://www.bizpro.org.ua>
41. Bridges.org. Reports, analyses; training material and guides; statistics. <http://www.bridges.org/resources/reports.html> Including on-line resources for ICT training: <http://www.bridges.org/techguide/resources.html>
42. Development Gateway (World Bank) Topics and Discussions. For a wide variety of documents (including many examples) on ICT and development; e-commerce and development; e-commerce and arts and crafts; and more. <http://www.developmentgateway.org/all-topics>
43. Digital Dividend. A site offering innovative examples of SME's using e-business techniques. Also offers a clearinghouse to match investors/sponsors with prospective projects. Also offers helpful links page and links to dozens of e-commerce sites in developing countries. <http://www.digitaldividend.org/>
44. Digital Opportunity Channel. Source of success stories, news related to e-commerce and ICT for development. <http://www.digitalopportunity.org/>
45. E-Business awareness campaign for SME's of the European Commission. <http://europa.eu.int/comm/enterprise/ict/policy/godigital.htm>
46. e-Marketplace Services. Full of reports, articles, case studies. Focused on helping SME's understand and use e-marketplaces. <http://www.emarketservices.com/>
47. EMPREC, UNCTAD's programme to promote the sustainability of small and medium enterprises. This program provides general business training to SMEs and also has an Electronic Trade Opportunity capability. <http://www.empretec.net/>

48. Food and Agriculture Organization's (FAO) information center has documents related to the use of ICT for agricultural development <http://www.fao.org/waicent/search/default.asp>
49. HP (Hewlett-Packard) e-Inclusion Program offers examples of innovative uses of ICT by SME's (and other organizations). Good source of examples for training. <http://www.hp.com/e-inclusion/en/>
50. Information for Development Program (World Bank). Good source of case studies related to ICT, many including small businesses. <http://www.infodev.org/>
51. Information Technology for Africa. Coordinates IT training programs for the Southern African Development Community (SADC). Works with IT partners in Europe and Africa. Sponsored by the German government. <http://www.it-ab.net/>
52. Institute for Connectivity in the Americas, a new initiative of the Canadian government resulting from the 2001 Summit of the Americas. In 2002, this site is just being developed but already has some useful white papers and discussion groups and promises to also have virtual discussion groups and may be a good source of examples of SME successes with e-commerce in Latin and South America. Has a list of links that will be useful for those addressing SME e-commerce readiness in Latin and South America. <http://www.icamericas.net/>
53. International Chamber of Commerce. Useful site to track policy and legal issues; e-business initiatives. Has a Business in Africa focus section; addresses online shopping dispute resolution and online contracting. Also provides interesting illustration of virtual exhibitions. <http://www.iccwbo.org/>
54. International Telecommunications Union. Source of case studies and country assessments, especially on infrastructure, in-depth publications regarding telecommunications training, laws, regulations, gender issues, universal access, and more. <http://www.itu.int/home/index.html>
55. Internet Law and Policy Forum. Useful site to track legal issues related to e-commerce in developing countries. <http://www.ilpf.org/>
56. The Internet Society. Excellent source of technical and public policy issues constraining spread of Internet usage; training options; articles in its e-publication *e-OTI: OnTheInternet*. Articles sometimes offer good case examples of e-commerce in developing countries. <http://www.isoc.org/>
57. LearnLink: Digital Tools for Development (USAID sponsored project) <http://learnlink.aed.org/index.html>
58. NUA Internet Surveys by Category. Source of Internet statistics, including breakdowns by regions and country. <http://www.nua.com/surveys/>
59. Organisation for Economic Development and Cooperation's section of website focusing on electronic commerce. <http://www.oecd.org/EN/home/0..EN-home-29-nodirectorate-no-no-29.00.html>
60. Techknowlogia, a web-based periodical. <http://www.techknowlogia.org/>
61. USAID's Development Experience Clearinghouse. Try using keyword search for "business support services," "women in development," and "training." <http://www.dec.org/>
62. United Nations Conference on Trade and Development (UNCTAD), e-Commerce site. Useful background papers, reports, presentations. <http://www.unctad.org/ecommerce/index.htm> A recent background paper for July 2002 conference covers enabling environment for e-commerce. See <http://www.unctad.org/en/special/c3em15do.htm> for document in three languages.
63. Worldcom Digital Library. Free web-based library including many useful articles on electronic commerce. <http://www1.worldcom.com/us/resources/library/>

Sample Websites to Help Prepare SME's for e-Commerce

Use these to get ideas how you might use a website for your target SME's or to find training materials and articles of interest to SME's. Most of these sites are not focused only on e-commerce but do offer advice, information on e-commerce.

64. Appalachian Center for Economic Networks. Example of US site focused on helping rural businesses (including agricultural) use e-business techniques. <http://www.acenetworks.org/>
65. American Express Company has a website for small businesses in developed countries. <http://www.americanexpress.com/homepage/smallbusiness.shtml?openvan=open>
66. Business 2.0 <http://www.business20.com/> Not necessarily for small businesses only but full of useful information.
67. eCommerce Advisor's Small Business Advisor http://www.ecommercetimes.com/small_business/
68. Emerging Business <http://www.ebmagz.com/>
69. International Finance Corporation (IFC) offers a SME Toolkit (pre-release version) which includes tools (articles, resources) on e-commerce as well as information on web-based marketing. <http://www.smetoolkit.org/presentation/SubCategory.jsp?iCategoryId=76>
70. National Association of Manufacturers. E-business section as well as a section for small and medium manufacturers. Includes virtual university. <http://www.nam.org/>
71. National Federation of Independent Businesses. Includes tips and tools (many short, practical articles) related to the Internet and e-commerce. <http://www.nfib.com/>
72. SBDC (Small Business Development Center) Net. E-Commerce guide and links to other resources. <http://sbdnet.utsa.edu/SBIC/e-com.htm>
73. SCORE <http://www.score.org/> See thorough business resource index with useful links and e-mail counseling service.
74. Small Business Computing Newsletter (e-mail based) with useful links as well. <http://e-newsletters.internet.com/smallbusinesscomputing.html>
75. UN Development Programme's web-based document on electronic commerce. <http://www.undp.org/info21/e-com/e-main.html> Appears to be a bit out of date but is a good example of how a web-based resource can be designed.
76. US Small Business Administration (SBA) has several sites and documents useful to small businesses figuring out how to use electronic commerce, including an on-line course on e-commerce (<http://www.sba.gov/classroom/courses.html>). See also the SBA's Business Advisor Site <http://www.business.gov/busadv/maincat1.cfm?catid=320> which has links to several related sites with sample training materials and courses and SBA's advice on the digital divide: <http://www.sba.gov/classroom/digitaldivide.html>. All of these could be used as models for similar websites, documents or courses for SME's in specific developing countries.

Some Sources of Technical Volunteers

77. Geekcorps provides technical volunteers plus offers a list of businesses and organizations it works with to help small businesses in developing countries use ICT. <http://www.geekcorps.org/> then select "Other Sites" link.
78. InterConnections. If the business in the developing country is a nonprofit, this organization will offer help. <http://www.interconnection.org/>
79. NetCorps, Canada's technical volunteer service http://www.netcorps-cyberjeunes.org/english/main_e.htm
80. Peace Corps (US) now has an information technology focus area in which it offers volunteers to help small enterprises use technology. <http://www.peacecorps.gov/assignments/focusareas.cfm#it>
81. United Nations Information Technology Service. <http://www.unites.org/>
82. Volunteers in Technical Assistance. <http://www.vita.org/>
83. VSO. <http://www.vso.org.uk/>