E-COMMERCE THE ALTERNATE PANACEA FOR REAL GDP GROWTH IN JAMAICA?

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The Economic Development Institute

"The essence of the knowledge is, having it, to apply it; not having it, to confess your ignorance. Ignorance is the night of the mind, but a night without moon or star".

Confucius.

"It is not the degree that makes a great man; it is the man that makes the degree great"

Nicoli Machiavelli.

The Economic Development Institute under the theme **Global Thinking Research** was established in 2001. We are group of past students of the University of the West Indies living in and outside Jamaica. We came to the realization from when we were on the Mona Campus that in the **Information Age** we live in, successful people are those who have access to information. We formed a group to share in this **New Way of Thinking** and found it fruitful to our endeavours . Unfortunately, we had to restrict our information bases in many cases as our lecturers and tutors deemed it fit to remain in a vacuum of limitation with regards to the evolution of the **New Information Paradigm**. We were clearly ahead of our time. We have developed this new product called the **Information Booklet Series (which there is a need for),** the product provides **information on topical issues** in the areas of Management, Sports, Information Technology, Public Administration, Information and Communication, Economics, Economic Development, Social Development, Legal Education, Industrial Relations at competitive prices. We have kept it simple so that all can understand and appreciate. As such, we do not regard them as theses on the chosen areas and they do not seek academic recognition,

however they do meet WIPO (World Intellectual Property Organization) Standards. We hope you will find the following informative and instructive and as usual your comments would be appreciated.

Peter W. Jones
Executive Director

"E-commerce is one of the most visible examples of the way in which information and communication technologies (ICT) can contribute to economic growth. It helps countries improve trade efficiency and facilitates the integration of developing countries into the global economy. It allows businesses and entrepreneurs to become more competitive. And it provides jobs, thereby creating wealth." ***Kofi Anan, UN Secretary General***

Electronic commerce and its related activities over the internet can be the engines that improve domestic economic well-being through liberalization of domestic services, more rapid integration into globalization of production, and leap-frogging of available technology.

ELECTRONIC COMMERCE MERGES THE DOMESTIC AND INTERNATIONAL MARKETPLACES

"Electronic commerce" is a shorthand term that embraces a complex amalgam of technologies, infrastructures, processes, and products. It brings together whole industries and narrow applications, producers and users, information exchange and economic activity into a global marketplace called "the Internet." There is no universal definition of electronic commerce because the Internet marketplace and its participants are so numerous and their intricate relationships are evolving so rapidly. Nonetheless, one of the best ways of understanding electronic commerce is to consider the elements of its infrastructure, its impact on the traditional marketplace, and the continuum of ways in which electronic commerce is

manifested. This approach shows clearly how electronic commerce is intricately woven into the fabric of domestic economic activity and international trade.
Electronic commerce as it has evolved today requires three types of infrastructure:

- Technological infrastructure to create an Internet marketplace. Electronic commerce relies on a variety of technologies, the development of which are proceeding at breakneck speeds (e.g., interconnectivity among telecommunications, cable, satellite, or other Internet 'backbone;' Internet service providers (ISPs) to connect market participants to that backbone; and end-user devices such as PCs, TVs, or mobile telephones).

Process infrastructure to connect the Internet marketplace to the traditional marketplace.
This infrastructure makes payment over the Internet possible (through credit, debit, or Smart cards, or through online currencies). It also makes possible the distribution and delivery (whether online or physical) of those products purchased over the Internet to the consumer.

- "Infrastructure" of protocols, laws, and regulations. This infrastructure affects the conduct of those businesses engaging in and impacted by electronic commerce, as well as the relationships between businesses, consumers, and government. Examples include technical communications and interconnectivity standards; the legality and modality of digital signatures, certification, and encryption; and disclosure, privacy, and content regulations.

Together, these infrastructures enable electronic commerce to innovate the traditional marketplace in three ways:

- Process innovations: Electronic commerce simplifies, makes more efficient, reduces costs, or otherwise alters the process by which an existing transaction takes place. For example, Cisco Systems replaced its phone and fax ordering process

with an online ordering process and saved more than one-half billion dollars and reduced error rates from 25 percent to 2 percent. Boeing used computer-aided design and electronic communication to coordinate 238 design teams in the globalized production of the 777 aircraft, a process never before attempted in this way, and which cut error rates by 50 percent, and reduced both costs and time to market.

. Product innovations: Electronic commerce creates or facilitates new industries and products not previously available. For example, MP3 both enables consumers to play music downloaded from a computer and enables musicians to upload music directly to the internet,thereby creating a new medium to produce and consume music; WebMD repackages existing health information in an easy-to-use online format, offers opportunities to "chat" with people with similar health concerns, and provides "real-time" responses to health questions.

Market innovations*:* Electronic commerce also creates new markets in time, space, and in information that heretofore did not exist because transaction and coordination costs were prohibitively high. For example, the online bank Wingspan offers 24-hour bill payment features; PeopleLink is a global advertising location for artisans in remote parts of Latin America and Africa; reverse auctions through Priceline inform businesses of the exact price a consumer is willing to pay for the products, as well as reduce the consumer's purchase cost.

In reviewing the infrastructures that make electronic commerce possible, as well as the impact electronic commerce has on the traditional marketplace, we can see how electronic commerce is intricately woven into the fabric of domestic economic activity and international trade.

. The infrastructures on which e-commerce depends also are key to domestic activity. The three service-sector infrastructures of telecoms, financial services, and distribution and delivery are critical components for overall economic activity.

Comprehensive liberalization of services could raise global GDP by 4 to 6 percentage points—twice that credited to the Uruguay Round—as well as raise the long-run global growth rate from 3.2 to 5.0 percent. While the transition to liberalization is almost never without cost, liberalizing services promises more comprehensive benefits since services are an input to production in virtually all sectors of the economy. In contrast, liberalization of selected goods sectors has a narrower conduit through which it affects the overall economy.
Electronic commerce is global from the very start.

While traditional borders still matter in the world of international trade, electronic commerce diminishes their importance. No longer do customers need to be physically present to see or hear what they are buying. As a result, companies on the Internet instantly become international: Amazon was selling books to customers in over 40 countries in its first month of existence; the company now sells a variety of products to customers in over 160 countries. The electronic marketplace is currently free from explicit trade barriers. The absence of international tariffs or other barriers on electronic commerce encourages more people to try and to continue using the internet marketplace, creating a greater level of efficiency and economic benefit for its participants.
Electronic commerce is integral to existing WTO commitments. While there are currently no explicit trade barriers on electronic commerce, the infrastructures that make electronic commerce possible are still burdened by a myriad of trade and investment barriers. The growth of electronic commerce depends on continued liberalization of these infrastructures, many of which are already part of WTO commitments. Most important are computers and other information technology products (covered by ITA I and under consideration for ITA II), telecommunications (covered by the Basic elecommunications Agreement),

financial services (addressed in the Financial Services Agreement), distribution (relevant under TRIMS.Exploiting the synergies among these service sectors allows electronic commerce to flourish and maximizes economic benefits.

ELECTRONIC COMMERCE IS INCREASINGLY IMPORTANT AS AN ECONOMIC ACTIVITY

Estimates of the growth of internet usage and electronic commerce both within domestic markets and worldwide are notorious for their hyperbole. Even so, each year the actual growth has surpassed the estimate rather than falling short of it. Respected sources such as Forrester Research expect worldwide electronic commerce revenues to surpass $300 billion by 2002 and accelerate to $1.3 trillion in 2003. Currently an overwhelming (close to 85%) share of electronic commerce is concentrated in the United States, but diffusion into Europe and Asia, followed by Latin America and Africa will be rapid. In developing countries internet use and its economic potential are growing exponentially.

Two important facts about e-commerce are often overlooked. First, the vast bulk of the actual and to an even greater extent the expected growth in revenues from e-commerce comes from business-to-business transactions. In 1998, the ratio of B-to-B over B-to-C was 5.5 to 1; but by 2003 the ratio is expected to be 12 to 1. Second, in virtually all countries other than the United States, electronic commerce is export oriented. In the US, the share of export sales in total ecommerce revenues is only 10 percent, but in Canada it is 83 percent, in Latin America it averages 79 percent, and in Asia/Pacific it is 38 percent Moreover, the nature of the production process (comprising both manufacturing and services) is becoming increasingly fragmented and globalized. Multinational firms and strategic business alliances communicate, get price quotes, submit bids, transfer data, produce product designs, and basically do business in an international arena. Countries that do not have an

environment conducive to internet usage and electronic commerce will be marginalized from the globalized production process and global economy, at increasingly great cost to their citizens.

These observations have important implications for both domestic policy and international negotiations. First, business to business transactions often build on existing legal and regulatory foundations from physical trade so that issues of content, liability, and encryption are more easily surmounted. On the other hand, the importance of B-to-B and the desire to create a level-playing field for all size businesses highlight the need for the international arena to offer a transparent and codified approach to these issues.

DOMESTIC REFORMS WILL SPEED THE UPTAKE OF ELECTRONIC COMMERCE

Developing countries need to address a number of socioeconomic and regulatory barriers before their electronic commerce and internet use matches that of the United States or Europe. While the socioeconomic challenges are difficult to surmount and will be slower to achieve, the path to reducing regulatory barriers is clearer and the benefits quicker to observe. High Internet access rates, low penetration of electronic means of payment (such as credit, debit, or Smart cards), and cumbersome delivery systems are primary obstacles to the growth of electronic commerce in developing countries.

One area that is most easily quantified and compared is internet monthly access fees.

ITU data show that these fees vary substantially across countries and that the share of the fees accounted for by ISP charges versus accounted for by local telephone charges also varies substantially. For example, in the US, the approximately $20 per month internet access charge is all an ISP charge. In Korea, the $25 charge is

about 1/3 ISP charge and 2/3 local call charges. In Brazil, the $37 charge is nearly all a local ISP charge. In China, the $65 charge is about half ISP charge and about half a local phone charge. More importantly, when adjusted by the level of per capita GDP, the differences in charges is tremendous. For example, in the US and Australia fees are about $25 per month, accounting for less than 2 percent of monthly GDP per capita. In contrast, in Mexico, the fee at about $27 per month accounts for about 5 percent of monthly income and in Mozambique, that $27 per month accounts for about 70 percent of monthly GDP per capita.

Because the internet creates a new electronic businesses environment, "surfing" is a key way for users to see what businesses are now doing, and what market niches remain to be exploited. Consequently, large "entry" and on-going costs are a great disincentive to internet usage and therefore to the development of e-commerce business both within a country and for international trade. Competition, both for telephone access as well as among ISPs is a key area where government policy can make a difference in access and uptake of the internet.

Second, a supportive electronic payments infrastructure is crucial to promote electronic commerce, which exposes a key link between electronic commerce and the financial foundation of the economy. The efficiency of the payments system itself can help or hinder the development of electronic commerce. Issues of security for transactions, types of electronic media or techniques for making transactions, as well authorization and clearing functions are key aspects of the problem.

Electronic payments require an easy-to-use and secure payment vehicle. Although a number of countries are focussing on "cash on delivery" for tangible products, the future will require a payment method that is on-line so as to accommodate products (both goods and services) delivered digitally. For business-to-business transactions, an easy-to-use electronic payments mechanism is crucial to achieve

the cost reductions promised by internet-based commerce. In addition, security for financial transactions is the sine qua non; electronic payment must be secure and legal, with liability clearly identified, limited, and prosecuted.

Eighty percent of e-commerce transactions use credit cards, even as debit, smart cards or digital cash are being viewed as alternatives. Credit-card penetration by countries varies widely and for various reasons. In some countries, including China, the preference for cash to avoid audit trails undermines the use of credit cards as the basis for electronic commerce transactions, even as other forms of internet usage (such as e-mail) has risen. In other countries, such as Taiwan, people are unwilling to use credit cards for internet transactions because there is unlimited liability in the case of fraudulent use of the credit card number. Finally, the additional charge to businesses (which in some cases is transferred in full to the customer) for the use of an internationally recognized credit card can be as high as 5 to 7 percent of the transaction (for example in Bulgaria), much too high to be acceptable to business or consumer. Beyond individual transactions, full efficiency and realization of the benefits of ecommerce depends on rapid authorization, payments, and settlement of accounts through the "financial plumbing" of the economy. At minimum, authorization for transactions between internet businesses and payment institutions (such as credit card companies or banks) needs to be in real time, so as to allow immediate delivery of digital products. Moreover, the shorter the time between authorization and actual payment, the more efficient the transaction and the lower the institutional risk. Many developing countries do not have financial institutions or central bank payments mechanisms that are up to this task. When countries maintain controls on foreign exchange usage, full participation in ecommerce for international trade is problematical. Some countries allow exporters greater access to international exchange than other businesses (as in Morocco, for example). This strategy could limit the development of electronic

commerce by indigenous small businesses that need to import in order to produce for a market niche in the external or even for the domestic market; Saffron producers, for example, may achieve greater global sales by importing marketing expertise over the internet. The desire to maintain a closed capital account but an open current account (as in Sri Lanka for example) is more difficult when the nature of the internet transactions is not transparent to the authorities; who can tell whether the cross-border credit card payment was for a US Treasury bond rather than for a Dell computer?

JAMAICAN GOVERNMENT POLICY ON E-COMMERCE

E-commerce in Jamaica is in its fledgling stage. An immediate priority is the formulation of principles to guide its development. In addition, legislation to facilitate E-commerce (privacy, electronic signatures, consumer protection for electronic transactions etc.) has not yet been formulated.

GOALS

a) The government must promote e-commerce by using the Internet and information technology to carry out certain government functions. One of the first steps is to define which applications will benefit most. Automated purchasing, financial transactions, payroll applications are promising. The next step is to develop and fund an e-commerce pilot project.

b) The government must create a favorable environment for e-commerce by Reviewing laws, rules and regulations that could impede its development in the private and public sectors.

I. Laws covering digital signatures, privacy, security, intellectual property protection (copyright, patent, and trademark) and the legal acceptability of electronic documents be reviewed and possibly revised.

ii. The U. S. Government has taken the lead on addressing many international e-commerce issues. Jamaica should form liaisons with the Department of Treasury to keep informed on electronic payment systems and electronic banking.

iii. Jamaica should also review the work of the United Nations Commission on International Trade Law (UNICTRAL). The Commission has just

completed a model law that supports the commercial use of international contracts in e-commerce.

c) The Government must facilitate private sector initiatives to install the necessary telecommunications infrastructure, which are required to support e-commerce in Jamaica over the next five years.

ACTIONS

a) The E-commerce Advisory Council will develop strategic goals for e-commerce, incorporating both the public and private sector. This plan will include, for example, a study to determine what government applications would benefit most from e-commerce as well as a plan to provide locations where the public can use the Internet for e-commerce. CITO will review these goals on an ongoing basis.

b) The Ministry of Commerce and Technology will establish an E-commerce goal that can be reached by the year 2004. (e.g. By the year 2004, 50% of Jamaica's government procurement will be done electronically.) Each Ministry will develop strategic plans to achieve this goal.

c) Within the favourable environment created by the government, the private sector will assist the government in developing innovative funding to build an e-commerce infrastructure nationally. (e.g. Venture Capital and partnerships)

d) The Minister of Commerce and Technology should review and update those laws and regulations affecting the development of e-commerce and promote policies to ensure that significant progress is made in implementing E-commerce.

e) The Minister of Finance and Planning should develop a pilot project for the electronic posting of government business opportunities. The electronic posing system will provide government agencies and departments with

convenient and universal Internet access and the private sector will have one place to go to for this information.

f) The Minister Commerce and Technology should develop an incentive scheme to promote the use of e-commerce in the private sector via vehicles such as the Trade Point Programme.

g) The Minister of Education and Culture should launch a programme to promote development and training of electronic commerce professionals.

PRIVATE SECTOR OPPORTUNITIES

a) The provision of advertising services to overseas clients through audio-visual services, utilizing local scenery, culture (music, history etc.) and talents.

b) The offering of accounting services to overseas companies.

c) The provision of local and international marketing services.

IMPACT ON FIRMS IN DEVELOPING COUNTRIES

In the next few years the main sectors to gain from eCommerce are expected to be computer hardware and software, advertising and marketing, media, publishing and information services, finance, banking, insurance, brokerage and Internet services, travel and tourism, and entertainment services. As with international trade in general, all these sectors are today dominated by multinationals and other enterprises from the North 30. However, there are several emerging opportunities that businesses in the South can look at and even create. As it is estimated that 80 per cent of the growth in eCommerce will come from Business-to-Business (B2B)31 transactions,

opportunities are emerging in global supply chains, which enterprises of the South can attempt to become part of.

PRESENT PERCEPTIONS IN DEVELOPING COUNTRY FIRMS

A study by the IFC, Washington in 1998 revealed some interesting facts about actual use of the Internet by developing country firms. The managers and staff in these firms gave the following responses:

POTENTIAL BENEFITS AND CHALLENGES OF ECOMMERCE

ECommerce carries the promise of several possible benefits for firms in developing countries. However, along with this potential, also lurk several d angers that must be taken as challenge s to address in the policy and strategies that each h firm and developing country must prepare for itself. Listed below are some e of the implications:

• AN IMPROVED IT SECTOR

With eCommerce g growth in developing countries one obvious sector to benefit is going to be the IT industry both hard ware and software. On the one hand this could mean a faster transfer of technology but could also mean that the existing multinationals of IT may alone benefit if the local industry is weak. Some developing countries like India have followed a policy of initially protecting the local IT industry by encouraging joint ventures with multinationals but keeping the duty on the import of components lower than on the import of computer equipment, thus encouraging local assembly and production.

• IMPROVED SUPPLY CHAIN MANAGEMENT

The purchasing and supply chain is crucial for SMEs because some 60 percent (on average) is the cost of inputs and even a 10 percent reduction here through better processes, transform s into a 60 % increase in profits. For the firms in developing

countries dealing in the global market some of the common problem s are lack of market knowledge, poor communication, cumbersome procedures, delays and uncertainties in supply, poor quality and excessive stocks. ECommerce can help solve some e of these thro ugh better k knowledge management, communication and automated supply procedures leading to higher profits and enhanced competitiveness, subject of course to these Sees also being able to improve their own organizational structures and cultures through a re-engineering process to make themselves ecompatible.

The downside is that those firms that do not link up digitally may in t time be even thrown out of their existing supply chains. Also as global standards develop for such supply, entry into the major supply chains may become m ore difficult for newcomers.

• **E-MARKETPLACES AND SMES**

The past couple of years have shown that large industrial corporations are suddenly enamoured with creating e-marketplaces, or specialized websites dealing with the trading, both up-stream and down-stream, of their raw-materials and products. These are basically B 2B on-line e markets that attempt to bring together the benefits of online trading to specialized commodities. Some of the recent examples that show the wide range of this trend are as follows:

• ***GENERAL MOTORS, FORD* AND *DAIMLERCHRYSLER* ARE CREATING THE WORLD'S LARGEST EMARKETPLACE**

by linking up their procurement needs on a single online trade exchange. These three already account for some $200b n worth of yearly purchases. *Renault* of France and *Nissan* and *Toyota* of Japan have also announced plans to participate. This exchange could involve literally tens of thousands of suppliers from across the globe.

• Fifty of the world's largest consumer product groups have joined together in an emarketplace being co-coordinated by the *Grocery Manufacturers of America* that is going to bring together rivals such as *Procter & Gamble* and *Unilever*, *Nestlé* and *Kraft Foods*.

• Six of the biggest US health insurance companies are developing a health insurance website tentatively called *MedUnite* to directly enroll and interact with patients and doctors lest they be lost to the e new Internet health-c are companies appearing on the net.For many of the new entrants, despite their excellent off-line credentials, these are basically react ions to the new economy and for them to b e successful in this new game they will need to prepare for the new online world by shunning several of their proprietary trading habits. The companies involved need to be ready and willing to bring suppliers and customers deep into their business and purchase processes and to develop similar links with those of their partners. Also the lack of appropriate software applications for the wide and new types of emerging e-markets keeps them in what one commentator refers to as an 'e-commerce kindergarten' which will mature only when there are new applications, architecture and a revamped vendor community supporting the full trading cycle.

• **Acquisitions**

Mergers and acquisitions will not remain in the realm of big-business and the North. Firms in developing countries too will be affected as new opportunities and relationships emerge in the digital economy , both local and across bord ers. The obvious danger for developing country firms is that the traffic may be one way with firms from the develop ed world taking them over. But this need not be so, as several Indian dot.coms (eCommerce companies) and entrepreneurs are showing, arriving in the US Silicon Valley to start joint ventures and start-ups.

ELECTRONIC COMMERCE IMPLICATIONS FOR FIRMS AND WORKERS IN DEVELOPING COUNTRIES

• Distribution and delivery benefits

Studies show that in developing countries delivery and transportation costs are a greater share of total cost of production than in developed countries. ECommerce and EDI-type automated procedures can therefore bring in efficiencies and better distribution. Firms in developing countries need to use these processes as well as to enter the business of delivery services themse lves. If they do not, the danger is that they could be swamped by the international transport services and courier companies like Federal Express and UPS for whom business is already expanding exponentially from eCommerce and the growing opportunities of small direct orders over the Internet.

• PERSONALISED DIRECT MARKETING

The low costs o f direct marketing via the Internet ha s created a huge potential for personalized direct marketing. This allow s consumers to order as per personal taste and requirements. In the US it is already a huge and growing industry. It does though lead to problems and issues that go against the norms of brand and mass production on which most existing industry is based. For developing countries' SMEs, this is a very unique opportunity to gain from this emerging market both in exports and in their own local economies, as they would have the advantage of

small and relatively cheaper production bases to cater to individual needs. Some eCommerce sites from Singapore, Malaysia and India are beginning to offer such services .

• B2G OPPORTUNITIES

B2G or business to government is an area of eCommerce that is expected to develop and expand in the future as governments begin to realise and utilise the efficiency, cost saving and transparency that the Internet can bring. Such openings would be of great opportunity, especially for SM Es, who a re mostly unaware and unable to enter these supply chains presently.

There is a danger though that in some countries local political compulsions and bureaucratic procedures may prevent such possibilities for some time to come. There is also the threat that once this becomes the norm, those firms in developing countries (even if presently in such supply) that are unable to synchronise their procedures and sup ply management system s to eCommerce norms set by the procurement agencies , would lose out.

• INTERNET ENABLED SERVICES

Firms in developing countries have a competitive advantage for providing eServices (backoffice, call centres, data processing, etc.) as labour costs are lower solving the problem of moving persons abroad. This area is booming in India where, for example, several airline companies such as British Airways and Swissair have located their booking services and account reconciliation services there. Malaysia, Singapore, Hong Kong , Philippines and Jamaica are some of the other countries where similar IT-enabled services are being set up.

Besides basic computing skills, the present status of eCommerce requires a good knowledge of English although soon other European languages will also command a premium. Even though this is good business as such, for the IT industry and service sector, developing country firms should also have strategies to go up higher in the value chain of the software and eCommerce industry, i.e. by

developing and running software, multi-media and IT services domestically as well as for the global market. Firms in developing countries must strategize for this and simultaneously upgrade the skills of their employees through specific HRD and training policies.

• ***DEATH OF DISTANCE***

For firms in developing countries, ECommerce can be the bridge to overcoming the drawback of distance from developed markets. ECommerce has the potential for providing world-wide presence for SMEs as the market entry barriers are lowered enabling suppliers to address market segments that were previously uneconomical and unreachable. They can use the Internet to advertise their products at a global scale an d also set up 'virtual shops' at much cheaper cost than actual stores abroad. Of course maintenance, upgrading and marketing costs are high and

also there are issues of security, payments and assured supply, which need to be addressed. It needs also to be noted that the same technology can be used by transnationals for accessing local markets in developing countries and threatening the firms in their own den.

• **SETTING UP INTEGRATED VIRTUAL SHOP-FRONTS**

Virtual shopping malls are now common and on several websites. But this is an idea that has also been very successfully tried by some developing country SM Es to great advantage. It provides the opportunity to sell together and gain from a common platform much like what a mall does, only much cheaper and certainly more accessible, pro viding an opportunity that in fact would not exist in the brick and mortar world for several of these every small businesses.

One example of this is the Asian Sources Media Group (ASM), a publishing company based in Hong Kong. The firm 's Website serve s as a shop-front for m ore than 7,000 Asian suppliers, mostly small-to-medium-sized factories in Hong

Kong, China, Taiwan and Korea, selling everything from cheap plastic toys to multimedia electronics. Before their inclusion in the ASM website many of these factories did not even have a personal computer, let alone an Internet connection. ASM provided what they needed, trained them in how to use it, and included them in its on-line catalogue of n early 200,0 00 products. Within a year, the A SM sit e was generating more than 50,000 inquires a quarter, and is now running at a pace nearly double that. Since the inquiries go straight to the suppliers, and subsequent negotiations take place directly between buyer and supplier, it is difficult to calculate the volume of business generated, but customers have suddenly emerged in South America o r Eastern Europe for Asian firms that previously had little or no means of selling to those markets

• IMPROVING SERVICE PROVISIONING

Consumers in developing countries may be able to get lower priced items or better services. The possibilities are enormous for firms and innovative new our alternative services can provide more business. As an example in the services area, Pakistan Telecommunications Ltd. the state run monopoly, solved the problem of inaccurate telephone number listings in hard-copy directories by setting u p a 24-hour on-line directory service through the Internet. It is now planning to export this expertise.

• SERVICES INNOVATION AND ECOMM ERCE

Particularly in the services and export sectors, those firms have be en known to b e more successful that innovate as a matter of competitive survival. ECommerce provides the best platform for innovativeness. It combines the efficiencies of information technology and software with the global advantages of the digital economy. There are several examples in developing countries of success stories on account of this. For example Trade Point Beijing, set up in 1995 by the Chinese

local government, besides providing trade data also converted to being a ‘one-stop shop’ on foreign trade to streamline access to the many government departments required to be contacted for the purpose. Similar focal points linked electronically are being set up in India, Malaysia and Sri Lanka amongst other places.

• TRAINING AND DISTANCE LEARNING FOR FIRMS AND WORKERS

The Internet has provided a unique medium for firms in developing countries to provide for the upgrading of their worker’s skills. This can help adapt the firms to the new economy. The problem to be surmounted of course w ill be reliable communication networks and appropriate teaching and learning skills.

• WITHER THE MIDDLEMAN?

One of the earliest expectations of eCommerce was that it would reduce the role of middlemen, intermediaries, agents, etc. who would gradually disappear. This was hailed as the process of ‘disintermediation (producers selling directly to consumers without the aid of intermediaries). Time has shown that in fact the old economy middlemen are being replaced by the new economy ‘infomediaries’ who will emerge as the new power-brokers. Some ‘old economy’ intermediaries are also adapting to the changed environment an d may y et survive by offering on-line services.

• DEVELOPING COUNTRY ECOMMERCE P ORTALS

The all-knowing portals are the rage on the Internet. These are websites o r services that offer a broad array of resources and services, such as e-mail, forums, search engines and on-line shopping. In developing countries too several local portals have emerged.

South America has examples such as *Yuppie, Rio-o n-line*, *Star Media* and *The Caribbean Home Page*, all providing several services and links. Indonesia has *Indobiz.com* for business links, Nepal and Silence have government run sites and India has several such as *Satyam -on-line, Info line, Mall o f India*

etc. One very successful example is Africa Online which started in 1994 in Boston, USA, and Nairobi, Kenya, to provide expatriate Africans with news of home. It currently employs some 250 people and has spread to several African countries. It receives 10 million hits per month, and has approximately 150,000 subscribers, comprised mostly of businesses.

SOME POLICY ISSUES FOR WORKERS AND *EMPLOYMENT*

All businesses associated with communications, information technology and eCommerce are encompassed in what is commonly called the "new economy". The implications of this model of economic growth a re a matte r of heated debate. Recent reversals in the so-far rising stock prices of technological companies as opposed to the declining values of the old economy businesses prove that this model not only holds promise (at least for the west) for ushering in prosperity but could also bring about a period of uncharted and messy change. Similarly, there are several views amongst economists about the fundamentals of the new economy model and how it relates to established doctrines of economic theory. One such principle has been that inflation would rise if unemployment stayed below a 'natural level' . In the United States this is not holding good and therefore the conclusion being talked of is either that eCommerce has helped reduce prices or that workers have not yet realised the impact and are therefore not yet actively demanding a piece of the productivity gains. Further empirical evidence is required for either view.

What is clear is that the new “digital economy will have a major impact on the global economy. National markets, especially in developing countries, may not yet be feeling the changes but the waves of the new global competitive environment is likely to effect firms and workers throughout the world. The impact of eCommerce

for developing countries today is mostly in the international trade sector. But eCommerce could soon have a vital impact on the services sector, where the potential for offering digitized service and transactions is very high.

ECOMMERCE AND EMPLOYMENT

In view of the fact that eCommerce itself is an emerging phenomenon and its full impact on the new and old economy remains mostly in the realm of projections and estimates, it is difficult to say what the long term effects of eCommerce will be on employment. A study of the European Commission published in 1998 confirmed that at that time there was no certainty as to what the impact would be. Empirical studies are presently not available and the effect could vary across sectors and regions. Since supply chain management and opportunities in them for SMEs and developing countries are expected to be important, research to analyse the impact of eCommerce at different stages of the new chains would be useful.

Some initial studies appear to indicate that while, on the one hand, as the new economy expands new jobs and new skills will be required and created , especially in the IT sector, in the short-term eCommerce could have a negative impact on jobs as more and more services and skills go digital.

On the whole eCommerce enterprises require lesser numbers of workers.

For example one of the most famous of eCommerce enterprises, *Amazon.com* had only 614 employees for sales of $148 million in 1998, as against the largest U S book store, *Barnes and Noble,* which had a sales force of 27 ,200 for sales of $2.8 billion (converting to sales per employee of $ 267,000 in the former compared to $103,000 for the latter). This impact can be negatively measured also in the sense where Federal Express, the world's largest courier service, reported in 1999 that its on-line customer service system represented a savings of 20,000 new recruitments!

Whether this is true for whole economies is not yet established as employment levels in the United States, the most successful country in eCommerce, are at the lowest level in decades.

Also for developing countries, the emerging opportunities in the new web-enabled services such as call centres and data entry seem to be highly labour-intensive.

SOME IMPLICATIONS OF THE NEW ECONOMY AND ECOMMERCE ON WORKERS

Globalization is expected to bring more foreign direct investment in developing countries. ECommerce and software development activities in most developing countries initially begun through such investment in joint ventures and through collaborations. Such investments do not always mean start-up or greenfield enterprises. As eCommerce increase s in pace its compulsions could result in greater acquisitions of existing firm s in developing countries. In fact the norm in the new economy companies seems to almost be to acquire good existing software and e-Commerce start-ups (The dot.coms) rather than start a fresh. Studies show that acquired firms are more likely to lose jobs than non-acquired firm s are. Displaced workers often end up with part-time jobs and lower earnings. It is for this reason that several developing countries have placed conditions on mergers and acquisitions. For example, one of the main sectors where mergers have been particularly volatile in the recent past has been telecommunications. Since telecommunications companies have changed from lumbering, low-growth giants into high-tech companies with exploding Internet and mobile businesses, they seem to have developed the urge to merge. In 1999, nine of the top 10 deals in the world have been in telecommunications. This trend is extending to the developing

countries also. Can developing countries prevent this, or should they attempt to is the question. If they try to stop it, the danger of being passed-on by multinational enterprises is of course the risk . In reality, this perceived danger has rather promoted developing countries to enact favourable trade and foreign direct investment policies though , of course , with matching competition laws.

1)Similarly for existing firms in developing countries, e Commerce and the new digital economy is bringing new com petition and standards o f performance that could result in their having to face global pressures of cost and efficiency that may well demand restructuring and downsizing of staff.

2) The Internet is also revolutionising relationships and interaction between employees. From e-mail to joint virtual training and global virtual conferences on the internet, suddenly there is a medium of communication through which workers become collaborators no matter where they may physically be. All this can lead to a completely new form of employee participation and involvement in management and decision- making, be it a SME or a large organization.

3)ECommerce and the Internet is leading to more flexible working hours. Though many of the workers, such as home-based mothers and the young computer whiz-kids may favour such hours (offered to them as ‘f lexit ime’), trade unions tend to not favour such developments as they tend to erode labour agreements and existing legislation on working hours.

4)Quite obviously the highest premium on skills is and will continue to be on computer engineers, system analysts and data entry operators. These jobs will continue to expand and command much higher salaries than other workers.

5)As eCommerce and the new economy grow, new jobs will be generated also in multimedia, networking, telecom and new communication technologies and products, as w ell as the new professions of web management that are appearing.

6)There will be a much greater need for in-house training of existing workers so that they become e-literate. This is something that enterprises and developing countries need to focus on. Over-all there will be an impact on trade unionism also. Not only will several of the large enterprises see changes in size and performance in the new economy, the terms of employment may also need to be re-negotiated. Moreover, much of the benefits of eCommerce is expected to first be realised by the SMEs where traditionally trade union membership levels are much lower.

ECOMMERCE AND THE INFORMAL SECTOR IN DEVELOPING COUNTRIES

The informal sector, though mostly unregistered and not adequately monitored or researched, usually provides the largest employment in developing countries. According to the ILO, there has been a steady growth of this sector in almost all developing countries. In several of these areas of employment, the Internet is already having an impact, such as on tourism and travel services, food and restaurants, handicrafts and souvenirs. On the one hand, it could lead to greater popularity of these places and products for developing countries and therefore provide more employment, while, on the other it could divert some of the trade and services to eCommerce firms on the Internet.

ECommerce by its very nature is creating another type of informal sector out-sourced home-based computing and micro-enterprises offering web-enabled services. For multinational companies eCommerce has dramatically increased the possibilities of indirectly using skills in the developing countries. The whole gamut of call centre type out-sourced digital service s are based on this very concept of locating and utilising cheaper skills. Developing countries stand to gain in promoting such services.

While it is difficult to say what is and what will ultimately be the relationship between the informal sector and eCommerce and the digital economy, there is no doubt that an impact there will be. For the ILO and for developing countries especially this is an important area of policy research and must be studied.

WORLDWIDE STATUS OF ELECTRONIC COMMERCE

In contrast with the weak performance of several key developed and developing economies in recent months and the difficulties experienced by the information technology (IT) sector, Internet use and particularly electronic commerce have continued to grow at a fast pace over the last 18 months The number of Internet users worldwide is expected to reach 655 million by the end of 2002. Developing countries accounted for almost one third of new Internet users worldwide in 2001. In most of them, however, Internet penetration rates remain very low. As for e-commerce, the following table presents three estimates of global online sales. In the most optimistic forecast, e-commerce would represent about 18 per cent of worldwide business-to-business and retail transactions in 2006.
At the end of 2002 E-commerce business was estimated at 6,200 billion United States dollars. This is expected to reach 12,800 billion United States dollars by the year 2006. **Jamaica, clearly needs to get on the with this rapidly.**

CONCLUSION

Finally, distribution and delivery systems round out the set of service infrastructures that are key components to developing e-commerce. Speed is one of the most important manifestations of electronic commerce. Overnight delivery, just-in-time processing, 24 by 7 operations all are examples of how much faster and more precisely timed economic activities are in the e-commerce world. A

country with inefficient distribution and delivery systems and without multi-modal transport for international participation will be left behind in e-commerce. Moreover, there is a very important link between the effectiveness of the distribution and delivery systems and the incentives for the private sector to innovate and invest in new technology. Suppose the private sector spends money on internet technologies, but cannot get products to customers because of distribution and delivery barriers, as was the case for apparel producers in Sri Lanka attempting to break into the upscale international fashion market. When the economic benefits that might accrue to the private company are eroded by inefficiencies elsewhere in the chain-to-market, it reduces the incentives for further private investment in known technologies as well as creates a barrier to innovating new ideas for the local market. How should policymakers respond to these needs for domestic reforms? First, clear synergies exist between the elements of policy reform. Making substantial progress on one element (such as telephone charges) will reap smaller rewards than expected because of the tight relationship between the three foundations for e-commerce readiness. Second, exploiting existing technology available worldwide has great advantages of interoperability and can jump-start the globalization of domestic producers. Finally, the greatest innovation, profit, and increase in economic well-being will be generated by private sector entrepreneurs serving market niches unique to the home country, since only domestic entrepreneurs are truly able to understand their own market. Domestic policy might favor international infrastructures and overseas innovation when network externalities and interoperability are important to create the needed foundation for domestic initiatives. The ones who benefit will be domestic entrepreneurs. Electronic commerce and the internet integrate both services and goods sectors, across domestic and international boundaries. Key synergies exist between telecommunications, financial infrastructure, distribution and delivery,

and governance. The internet and electronic commerce both depend on and facilitate liberalization in these areas.

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