Caribbean Companies and the Information Superhighway

Simon Fraser

The University of the West Indies, West Indies

INTRODUCTION

With the explosion of public awareness of the Internet in the early 1990s, much attention has been focused on ways in which these new technologies can be used in developing nations. Some of the primary proponents of these initiatives include the World Bank, The United Nations Conference on Trade and Development (UNCTAD) and the Inter American Development Bank. The major themes include ways in which the Internet and electronic commerce can be harnessed for development, impediments to rapid diffusion of Internet technologies and success stories in small and medium companies.

Perhaps the most comprehensive review of these themes can be found in the United Nations Conference on Trade and Development's E-Commerce and Development Reports 2001, 2002 and 2003 (UNCTAD, 2001; UNCTAD, 2002; UNCTAD, 2003). Another rich source of information is Development Gateway's very comprehensive Web site, (http://developmentgateway.org), with links to hundreds of reports, publications and articles on the use of information and communications technologies in the development process.

Caribbean governments have also recognized the potential of the new technologies in fostering economic development. A search of the Web sites of regional newspapers turns up many stories written over the last decade promoting the Internet and electronic commerce. Once again, the major themes include the promise of electronic commerce for small and medium enterprises and factors precluding the effective utilization of the associated technologies and strategies in the region. (E-normous role in Ja for Net, 2000; Welcome to the Land of Pan, 2000).

Over last decade many Caribbean countries have witnessed massive investments in information and communications technology. Together, telephone companies, public and private corporations, cable television operators and Internet service providers have invested billions of dollars (United States currency) in new plant and equipment. These investments led to the introduction of an impressive array of new information and entertainment services. Simultaneously, many domestic banks introduced local and international credit cards.

These developments have given Caribbean businesses and residents unprecedented access to new information sources via the Internet and cable or satellite television. Their credit card accounts also give them the ability to act on advertisements shown on American television and Web sites. As such, there is a possibility that local companies could find themselves in direct competition with larger, better-financed corporations in more developed economies.

This paper will briefly highlight some salient characteristics of the English speaking Caribbean. The second section will review developments in the information and communications technology arena throughout the Caribbean during the period 1990 to 2002. This will be followed by a brief discussion of the impact that the Internet and its associated technologies can have on buyer search costs and information asymmetry. The fourth section will attempt to show how declines in information asymmetry in the region may translate into lower market shares, prices and in some cases business failure at the regional level. Evidence from U.S. industries will be considered. The section before last will also briefly examine how local retailers may benefit from the Internet and electronic commerce. Finally, the paper closes with a review of avenues for future research that will help close the knowledge gaps at a regional level.

OVERVIEW OF THE ENGLISH SPEAKING CARIBBEAN

The English speaking Caribbean is made up of former and remaining colonies of the United Kingdom. Geographically the region stretches from the Bahamas in the northwest to Guyana, located on the South American mainland. While many Caribbean nations are categorized as developing states, per capita incomes, access to health care, education and technology are significantly greater than the developing regions of Africa, Asia and Latin America. Some of these characteristics are summarized in Table 1.

Another critical characteristic of the English speaking Caribbean is the close proximity of most of the territories to the United States-the leading adopter of electronic commerce technologies and processes. Miami is a major international trade hub for the region. The flying time from Miami to any of the islands ranges between 30 minutes to

Copyright © 2006, Idea Group Inc., distributing in print or electronic forms without written permission of IGI is prohibited.

$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Caribbean	ribbean Populat (2003)		1 GDP Per Capita US\$ ²		Infant Mortality (per 1000 ³)		Gross Enrolment Ratio (Secondary Level) 2001	Motor Vehicles (per 1000 inhabitants) ⁴	Telephon Lines ⁵	e Internet Users as % of total population ⁶				
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Barbados	270.000		9,486		11		103.3	268	48	.1 5.56%				
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Bahamas	as 314,00		10476		18		91.5	342	4	0 6.75%				
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Guyana	765,000		936		51		90.5	100.8	9	.2 12.42%				
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Jamaica	2,651,000		2,990		20		83.6	74	20	.5 3.77%				
St. Vincent and The Grenadines 120,000 2,940 16 72.5 117.8 22.7 4.58% Grenadines 1,303,000 7,031 14 70.4 219 24 10.59% Africa 219 24 10.59% Africa 219 24 10.59% Migeria 129,000,000 435 79 327 .6 .5 0.16% Ghana 20,922,000 265 58 37.7 10.5 1.2 0.19% Democratic Republic 52,771,000 91 120 18.4 No Data No Data 0.01% Mauritania 2,893,000 367 69 32 16.7 1 1.56% Somalia 9,890,000 110 118 5.98 No Data .3 0.10% Harzil 178,470,000 \$2,925 38 107 111.9 21.8 <t< td=""><td>St. Lucia</td><td colspan="2">149,000</td><td colspan="2">4,994</td><td colspan="2">15</td><td>86</td><td>172</td><td>31</td><td>.7 8.72%</td></t<>	St. Lucia	149,000		4,994		15		86	172	31	.7 8.72%				
Trinidad and Tobago 1,303,000 7,031 14 70.4 219 24 10.59% Africa	St. Vincent and The Grenadines	120,000			2,940		16	72.5	117.8	22	.7 4.58%				
Tobago Africa Nigeria 129,000,000 435 79 327 6 .5 0.16% Ghana 20,922,000 265 58 37.7 10.5 1.2 0.19% Democratic Republic 52,771,000 91 120 18.4 No Data No Data 0.01% Mauritania 2,893,000 353 97 21.7 11.2 1 0.35% Kenya 31,987,000 367 69 32 16.7 1 1.56% Somalia 9,890,000 110 118 5.9 ⁸ No Data .3 0.10% Latin America Brazil 178,470,000 \$2,925 38 107 11.9 21.8 8.01% Argentina 38,428,000 \$5,267 20 99.6 197.7 22.4 10.67% Chile 15,805,000 \$4,310 12 85.5 135 23.3 19,63% <td>Trinidad and</td> <td>1,303</td> <td>3,000</td> <td></td> <td>7,031</td> <td></td> <td>14</td> <td>70.4</td> <td>219</td> <td>2</td> <td>10.59%</td>	Trinidad and	1,303	3,000		7,031		14	70.4	219	2	10.59%				
Africa Image: Nigeria 129,000,000 435 79 32^7 .6 .5 0.16% Ghana 20,922,000 265 58 37.7 10.5 1.2 0.19% Democratic Republic 52,771,000 91 120 18.4 No Data No Data 0.01% of Congo 91 120 18.4 No Data No Data 0.01% Mauritania 2,893,000 353 97 21.7 11.2 1 0.35% Kenya 31,987,000 367 69 32 16.7 1 1.56% Somalia 9,890,000 110 118 5.98 No Data .3 0.10% Latin America Image: None State Noe State <th< td=""><td>Tobago</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Tobago														
Africa Image: Constraint of the second state								1	i i	i					
Nigeria 129,000,000 435 /9 32' .6 .5 0.16% Ghana 20,922,000 265 58 37.7 10.5 1.2 0.19% Democratic Republic 52,771,000 91 120 18.4 No Data No Data 0.01% of Congo	Africa		100	000.000		12.5		227			0.1.00/				
Gnana 20,922,000 265 58 57.7 10.5 1.2 0.19% Democratic Republic of Congo 52,771,000 91 120 18.4 No Data No Data 0.01% Mauritania 2,893,000 353 97 21.7 11.2 1 0.35% Kenya 31,987,000 367 69 32 16.7 1 1.56% Somalia 9,890,000 110 118 5.9 ⁸ No Data .3 0.10% Harzil 178,470,000 \$2,925 38 107 111.9 21.8 8.01% Argentina 38,428,000 \$5,267 20 99.6 197.7 22.4 10.67% Chile 15,805,000 \$4,310 12 85.5 135 23.3 19.63% Peru 27,167,000 \$2,053 33 81.79 50.1 7.8 7.36% Venezuela 25,000,000 \$3,134 19 68.6 100.2 10.9 5.08% <td colspan="2">Nigeria</td> <td>129</td> <td>,000,000</td> <td colspan="2">435</td> <td>79</td> <td>32'</td> <td>.6</td> <td>.5</td> <td>0.16%</td>	Nigeria		129	,000,000	435		79	32'	.6	.5	0.16%				
Democratic Republic of Congo 52,7/1,000 91 120 18.4 No Data No Data 0.01% Mauritania 2,893,000 353 97 21.7 11.2 1 0.35% Kenya 31,987,000 367 69 32 16.7 1 1.56% Somalia 9,890,000 110 118 5.9 ⁸ No Data .3 0.10% Latin America	Ghana		20	,922,000	265		58	3/./	10.5	I.2	0.19%				
Mauritania 2,893,000 353 97 21.7 11.2 1 0.35% Kenya 31,987,000 367 69 32 16.7 1 1.56% Somalia 9,890,000 110 118 5.9 ⁸ No Data .3 0.10% Latin America	of Congo		52	,771,000	91		120	18.4	No Data	No Data	0.01%				
Kenya 31,987,000 367 69 32 16.7 1 1.56% Somalia 9,890,000 110 118 5.9 ⁸ No Data .3 0.10% Latin America	Mauritania		2.	,893,000	3	353	97	21.7	11.2	1	0.35%				
Somalia 9,890,000 110 118 5.9 ⁸ No Data .3 0.10% Latin America	Kenya		31	,987,000	367		69	32	16.7	1	1.56%				
Latin America Brazil $178,470,000$ $\$2,925$ 38 107 111.9 21.8 8.01% Argentina $38,428,000$ $\$5,267$ 20 99.6 197.7 22.4 10.67% Chile $15,805,000$ $\$4,310$ 12 85.5 135 23.3 19.63% Peru $27,167,000$ $\$2,053$ 33 81.7^9 50.1 7.8 7.36% Ecuador $13,003$ $\$1,666$ 41 59.2 47.1 10.4 3.87% Venezuela $25,000,000$ $\$3,134$ 19 68.6 100.2 10.9 5.08% Hiling ingge O O D D O O O O O O O <td colspan="4" o<="" td=""><td colspan="2">Somalia</td><td>9</td><td colspan="2">9,890,000</td><td colspan="2">110 11</td><td>5.9⁸</td><td>No Data</td><td>.3</td><td>0.10%</td></td>	<td colspan="2">Somalia</td> <td>9</td> <td colspan="2">9,890,000</td> <td colspan="2">110 11</td> <td>5.9⁸</td> <td>No Data</td> <td>.3</td> <td>0.10%</td>				Somalia		9	9,890,000		110 11		5.9 ⁸	No Data	.3	0.10%
Latin America															
Brazil $178,470,000$ $\$2,925$ 38 107 111.9 21.8 $\$.01\%$ Argentina $38,428,000$ $\$5,267$ 20 99.6 197.7 22.4 10.67% Chile $15,805,000$ $\$4,310$ 12 85.5 135 23.3 19.63% Peru $27,167,000$ $\$2,053$ 33 81.7^9 50.1 7.8 7.36% Ecuador $13,003$ $\$1,666$ 41 59.2 47.1 10.4 3.87% Venezuela $25,000,000$ $\$3,134$ 19 68.6 100.2 10.9 5.08% Milling inter 00 00 5025 20 81.0 24.3 42 2.50%	Latin America	1													
Argentina $38,428,000$ $\$5,267$ 20 $99,6$ 197.7 22.4 10.67% Chile $15,805,000$ $\$4,310$ 12 85.5 135 23.3 19.63% Peru $27,167,000$ $\$2,053$ 33 81.7^9 50.1 7.8 7.36% Ecuador $13,003$ $\$1,666$ 41 59.2 47.1 10.4 3.87% Venezuela $25,000,000$ $\$3,134$ 19 68.6 100.2 10.9 5.08% Asia Image: China $1,300,000,0$ $\$918$ 37 68.2 10.2 13.7 1.19% Diligning 00 00 5025 20 81.0 24.2 42 2.500	Brazil		178.	,470,000	\$2,925		38	107	111.9	21.8	8.01%				
Chile 15,805,000 \$4,310 12 85.5 135 23.3 $19,63\%$ Peru 27,167,000 \$2,053 33 81.7^9 50.1 7.8 7.36% Ecuador 13,003 \$1,666 41 59.2 47.1 10.4 3.87% Venezuela 25,000,000 \$3,134 19 68.6 100.2 10.9 5.08% Asia	Argentina		38.	,428,000 \$5,		267	20	99.6	197.7	22.4	10.67%				
Peru 27,167,000 \$2,053 33 \$81.7° 50.1 7.8 7.36% Ecuador 13,003 \$1,666 41 59.2 47.1 10.4 3.87% Venezuela 25,000,000 \$3,134 19 68.6 100.2 10.9 5.08% Asia	Chile		15	805,000 \$4,3		310	12	85.5	135	23.3	19.63%				
Ecuador 13,003 \$1,666 41 59.2 47.1 10.4 3.87% Venezuela 25,000,000 \$3,134 19 68.6 100.2 10.9 5.08% Asia	Peru		27	,167,000	\$2,0)53	33	81.79	50.1	7.8	7.36%				
Asia	Ecuador			13,003	\$1,6	666	41	59.2	47.1	10.4	3.87%				
Asia	Venezuela		25.	,000,000	\$3,1	34	19	68.6	100.2	10.9	5.08%				
Asia China 1,300,000,0 \$918 37 68.2 10.2 13.7 1.19% Division 00 \$025 20 \$10 24.2 42 2.500	Asia		r –				1	1	1						
Clima 1,500,000,0 5916 57 06.2 10.2 15.7 1.1976 Dbilinging 90.000.000 \$025 20 91.0 24.2 4.2 2.500/	Chino		1.2	00.000.0	\$0	10	27	69.2	10.2	12.7	1 100/				
	China		1,5	00,000,0	\$5	10	57	08.2	10.2	15.7	1.1970				
Philippines I XUUUUUUU 1 1975 797 197 197 197 197 197 197 197 197 197	Philippines		80	000 000	\$0	925	20	81.9	34.3	4.2	2 50%				
Indonesia 219.883 \$678 42 579 276 35 1.82%	Indonesia		00	219 883	\$6	578	42	57.9	27.6	3.5	1.82%				
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Malaysia		2.4	425 000	\$3.7	748	10	69.6	18.8	19.8	26.61%				
Thailand 62.833.000 \$1.865 20 82.8 126.1 9.9 7.64%	Thailand		62	.833.000	\$1.8	365	20	82.8	126.1	9.9	7.64%				
Vietnam 81,377,000 \$416 34 69.7 .7 3.8 1.84%	Vietnam		81	377,000	\$4	116	34	69.7	.7	3.8	1.84%				

Table 1. Selected developmental statistics for the Caribbean, Africa, Latin America and South East Asia

the Bahamas and 4.5 hours to Guyana. Each country is served by daily flights to the United States. Several shipping lines offer scheduled service between the United States' eastern seaboard and each country.

Selected ICT Developments in the Caribbean (1990-2002)

Telephone Companies

The largest ICT investor in the region is almost certainly Cable & Wireless (C&W) and its regional subsidiaries. C&W subsidiaries have invested billions of US dollars in fiber optic backbones, digital switching technology and cellular networks (C&W Deal Signals New Investments, 1999). Most have joined international consortiums such as the Americas I and II undersea cable projects (TSTT to spend \$540 million on upgrade, 1998).

Cable television companies have also invested heavily in new plants and equipment. Several are positioning themselves to enter the voice market when the telecommunications environment is liberalized. Caribbean consumers also have access to US television programming via DirecTV Latin America.

The Internet

Internet access is now firmly established in the English speaking Caribbean. Consumers can now access the Internet though dial-up connections, cyber cafes, schools, 4 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: <u>www.igi-</u> global.com/chapter/caribbean-companies-information-superhighway/11355

Related Content

Modelling Urban Environments to Promote Ecosystem Services and Biodiversity: Case of Stockholm Anna Kaczorowskaand Meta Berghauser Pont (2019). *International Journal of E-Planning Research (pp. 1-12)*. www.irma-international.org/article/modelling-urban-environments-to-promote-ecosystem-services-and-biodiversity/230901

On-Line Approaches to Data Delivery and Visualisation in Landscape Planning and Management Ian D. Bishop (2012). *International Journal of E-Planning Research (pp. 31-41).* www.irma-international.org/article/line-approaches-data-delivery-visualisation/62038

Conference Report: The 7th International Conference on Urban E-Planning, 2023

Carlos Nunes Silva (2023). *International Journal of E-Planning Research (pp. 1-2).* www.irma-international.org/article/conference-report/335097

Visibilities and Invisibilities: Theoretical Perspectives on Smart Cities (2021). Visibilities and Invisibilities in Smart Cities: Emerging Research and Opportunities (pp. 1-28). www.irma-international.org/chapter/visibilities-and-invisibilities/280372

Infrastructure and Industry Economy

Lining Ganand Weilun Zhang (2021). *AI-Based Services for Smart Cities and Urban Infrastructure (pp. 118-139).* www.irma-international.org/chapter/infrastructure-and-industry-economy/264777