

Electronic Commerce or Electronic Con – Benefits and Challenges for the Caribbean

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Abstract

Electronic commerce is being touted as a major potential avenue available to businesses in CARICOM. Much of this discourse has often centred on e-commerce's ability to make potential markets more accessible and the implications on tax revenue collection. This paper takes a critical look at the challenges faced by CARICOM States, and discusses the implications for their growth and development. The evidence suggests that while there are benefits to be derived for both businesses and the economies as a whole with the appropriate enabling environment, the challenges are immense. What is certain is that the countries stand to lose tariff and tax revenues from purely digitised products. Currently, these tax revenues from digitized products do not represent a significant portion of total Governments revenues in CARICOM Member States. In addition the inability of tax administrations and the deficiency in legislation, to deal with web base companies, sales and other Internet transactions will eventually impact negatively on tax revenues.

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Introduction

Electronic commerce, more popularly known as e-commerce, encompasses a wide spectrum of activities, some well established and most still new to the Caribbean region. Driven by the Internet revolution, e-commerce is dramatically expanding and simultaneously undergoing radical changes. Its advent has changed the way business is being conducted, and includes indirect e-commerce, i.e., the ordering of tangible goods electronic, as well as direct e-commerce, i.e., online delivery of intangibles. This process can, and possesses the potential to, create new functions and revenue streams.

Like that of the industrial revolution, e-commerce promises to accelerate the rate of growth and development of the world economy. The Forrester Research estimated that e-commerce in the year 2000-global business-to-business (B2B) transfers was US\$604 billion (UNCTAD, 2001). Businesses see tremendous opportunities for cost saving, revenue generation, increased market share, marketing and market access, and improving customer service through direct links that facilitate speedy enquiry and feedback. Similarly, consumers can *inter alia*, access the world market through the virtual economy on the Internet, choose from a wider variety of products, and shop in the comfort of their homes. Globalization and specifically liberalization of communication networks have all facilitated this break-through that further presents a massive boost for international trade.

However, while e-commerce's enormous potential to provide opportunities for consumers and businesses globally are often extolled, the drawbacks in the form of security concerns and quality of products delivered are given less prominence. Furthermore, the benefits to be derived for small and medium-sized businesses tend to be overstated (ITC, 2002). As such, its rapid implementation remains a growing and urgent challenge for commerce and industry in the Caribbean. While e-commerce makes it possible to trade at low costs across regions and national frontiers, to reap its full benefits, the development of an efficient infrastructure is necessary for the physical delivery of goods ordered electronically, including an efficient, modern postal service, distribution channels and transnational networks.

While striving to stimulate competition in the Caribbean Single Market and Economy (CSME), e-commerce is likely to bring profound structural changes. For example, new skills will be needed to create and maintain new jobs in the Caribbean. Additionally, the Caribbean's main competitors have already resolutely sized the opportunities offered by e-commerce – with the US and the European building substantial lead. In this respect the Caribbean can marshal a number of specific strengths in the fields of content creation and linguistic and cultural diversity.

Here the challenge of a stable exchange rate would be vital as well. Thus there is an urgent need to craft a Caribbean strategy with the aim of providing a stimulus to e-commerce and avoiding a fragmented approach to harnessing the potential benefits from this market.

The growth of e-commerce has resulted in many concerns being raised about the Caribbean regions' ability to fully tap into this latest technology. These concerns range from the type of information sent online to the kinds of business transactions conducted. As a result there is now much debate and discussions among stakeholders on how to regulate the Internet while preserving the interest of all.

For most developing countries entrenched in the digital divide these issues are not top priority. Encouragingly though, the Caribbean Community (CARICOM)¹ have moved towards creating a knowledge-based economy and comprehensive diversification of their services sectors. Currently, in CARICOM Member States there are several Telecenters². Small and medium size businesses from the region are using the Internet to advertise and sell their products to the rest of the world. Government Ministries advertise and promote their many services, such as tourist sites and services along with investment opportunities; and the private sector offers a range of services. These are all e-commerce-related activities that are expected to expand and develop as Caribbean Governments move to facilitate an e-commerce environment.

Major questions that remain however are:

- How will tax revenues be affected?
- Do we in the Caribbean have the wherewithal to keep abreast with the rapid changes in business structures and conduct due to the adoption and expanded use of e-commerce?
- Given the reciprocity of global electronic trade and e-commerce, how will it affect the region as domestic consumers may resort to more online purchases and transactions from companies and businesses abroad?
- How quickly can we get the Caribbean region to adopt the credit card mentality?
- How do we protect the integrity of our credit card system against hackers and thefts?

¹ The Caribbean Community is comprised of fifteen (15) small jurisdictions namely: Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti (provisional member), Jamaica, Montserrat, St. Kitts and Nevis, Saint Lucia, St. Vincent and the Grenadines, Suriname, and Trinidad and Tobago

² TeleCenters in the Caribbean and Latin America are of several types namely: commercial, franchise, University, School NGO-Sponsored, Municipal, and Multipurpose. They created employment in both urban and rural areas in the Caribbean. For Further details see "Telecenters for Socio-economic and Rural Development in Latin America and the Caribbean" by Proenza, *et al*, May 2001 @ www.iadb.org/regions/itdev/telecenters/index.htm .

- How do we bring down the transaction costs of being connected to the Internet?
- Shouldn't we be addressing other more fundamental problems internally such as the quality of the product we produce, improvement in the infrastructure and the need for modern distribution centers before thinking of getting aboard the e-commerce train?

Many of these concerns have evolved from the fact that in liberalized markets governments would not be able to use some fiscal policy tools at their full discretion, such as tariffs to protect domestic markets from the consumption or influx of 'bad' goods. Furthermore, on the tax front, many Caribbean countries remain heavily dependent on tax and tariff revenues to finance public programmes.

Given the current debate raging in other places, and the Caribbean regions' uniqueness this paper attempts to put in perspective, what are the issues to be considered and how best they can be addressed. While it will be ambitious at best, and impractical at worse, to attempt to deal with all the issues surrounding the e-commerce debate in the Caribbean in this paper, we instead focus heavily on the tax implications.

We commence by looking partially at the Caribbean tax structure and the importance of tax revenues in the Caribbean Community. In Section two we examine e-commerce efforts in the Caribbean and its incorporation into these economies. Section three reviews the literature, while Section four examines the tax implications of e-commerce for intra- and extra-regional trade. The penultimate section looks at various hypotheses that can lead to the erosion of tax bases through the use of e-commerce in the region, while the final section concludes and recommends some policy options.

Tax Revenues in the Caribbean Region

In a thought provoking and comprehensive analysis, the Eastern Caribbean Central Bank (ECCB) raised a number of interesting facets surrounding the tax base and structure of many Caribbean countries. The analysis, *inter alia*, highlights the level of dependence on tax revenues of CARICOM Member States. Statistics for the Organisation of Eastern Caribbean States (OECS) territories along with Guyana, Barbados and Jamaica indicate that these countries remain heavily dependent on tax revenues with the exception of Trinidad and Tobago who are moderately dependent on tax revenues (**Tables 1 & 2**). Generally, indirect taxes are proportionately larger than direct tax revenues.

Table 1: Composition of Government Tax Revenue in the Caribbean

Member States	Year	Tax Rev as % of Total Rev.	Tax on income, profit. & capital. gains as % of tax Rev	Property tax as % Of tax Rev	Goods & Services tax as a % of tax Rev	Taxes on int'l trade & Transc. as a % tax Rev	Other taxes.
Antigua & Barbuda	1999	87.1	10.1	1.2	18.2	57.5	....
The Bahamas	1999	90.5	....	....	....	....	....
Barbados	1999	94.9	34.6	6.4	48	8.8	1.18
Belize	....	....	....	....	....	....	....
Dominica	1999	84.2	25	1.2	12.7	45.1	....
Grenada	1999	85.5	14.2	2.6	16.4	52.2	....
Guyana	1999	90.7	41.4	1.4	11.6	40.2	...
Montserrat	1999	90.6	28.3	2.9	11.5	47.6	....
Jamaica	1999	84.9	25	1.2	....	....	....
St Kitts & Nevis	1999	73.6	19.8	1.3	15	37.2	....
St Lucia	1999	83.3	25.5	0.1	11.9	46.7	....
St Vincent & the Grenadines	1999	84.1	27.7	0.8	13.3	42.42	....
Suriname	....	....	....	....	....	....	....
Trinidad & Tobago	1999	59.2	....	....	....	....	....

Source: ECCB and other Member States annual Central Banks' report 2000.

.... Means not available.

More pertinent to this paper are tax and tariff revenues that can be affected by e-commerce. Young and Tsang (1998), and Graham and Heiselmann (1998), agreed that both direct and indirect taxation might be affected. Direct taxes particularly as they relate to taxes on income and capital gains can be affected given the ease with which businesses are able to relocate in "tax havens" with the use of e-commerce technologies. In CARICOM taxes on income, profit and capital gains represent the largest proportion of direct taxes. And as a percentage of tax revenues for the region, represent 23.5%. However, the fact that CARICOM Member States are more dependent on indirect taxes is cause for concern as this aspect of

taxes are more likely to be affected by e-commerce given the fear factor of an increase in web-based “distance selling” as intimated by Ross and Selby (1998). This is particularly the case for goods and services that can be digitised.

**Table 2: Comparative Tax Structures in the Larger Caribbean Countries, 1999 –2001
(as a percentage of GDP)**

TAXES	BARBADOS 2000/01	GUYANA 2001	JAMAICA 2000/01	TRINIDAD & TOBAGO* 1999/2000
Income Taxes	11.9	12.8	10.8	8.9
<i>Personal</i>	6.1	6.0	5.6	7.7
Corporate	4.8	5.7	2.3	1.2
Other	1.0	1.1	2.9	-
	12.6	11.1	12.3	6.6
Consumption and Excise Taxes	9.5	10.6	9.8	4.0
<i>VAT/Sales/Consumption Tax</i>	-	3.1	5.6	-
<i>Domestic Imports</i>	3.1	0.4	2.5	2.6
<i>Excise and Other</i>	2.6	2.9	3.5	1.7
	2.6	2.8	2.6	1.6
Taxes on International Trade	-	0.1	0.9	0.1
<i>Import Duties</i>	1.9	0.5	-	0.1
<i>Other</i>	2.2	1.6	-	0.3
Property Taxes	31.2	28.9	26.6	17.6
Other Taxes	1.5	2.2	1.6	2.8
TAX REVENUE	0.1	4.2	0.6	0.6
Non Tax Revenue				
Capital revenue and grants				

Source: IMF Statistical Appendices (2001)

* Nonpetroleum tax revenue. Petroleum revenue for the period was 3.8%

E-Commerce Efforts in the Caribbean

Currently there is little or no practice of collecting e-commerce indicators of the digital economy in national statistics or any other form. Data collected is not published in detail in Member States statistical publications. This information deficiency seems to be one of the primary reasons for inadequate attention and awareness of e-commerce and related activities in the region. Consequently, most Governments have little idea of the extent to which e-commerce, particularly through the Internet, is taking place in their domestic economy.

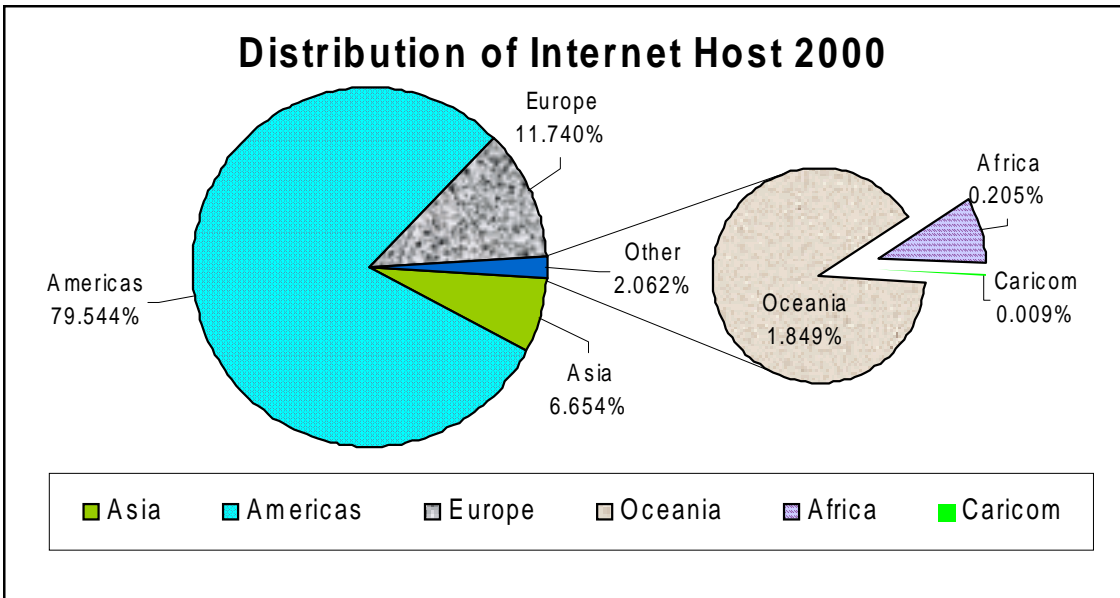
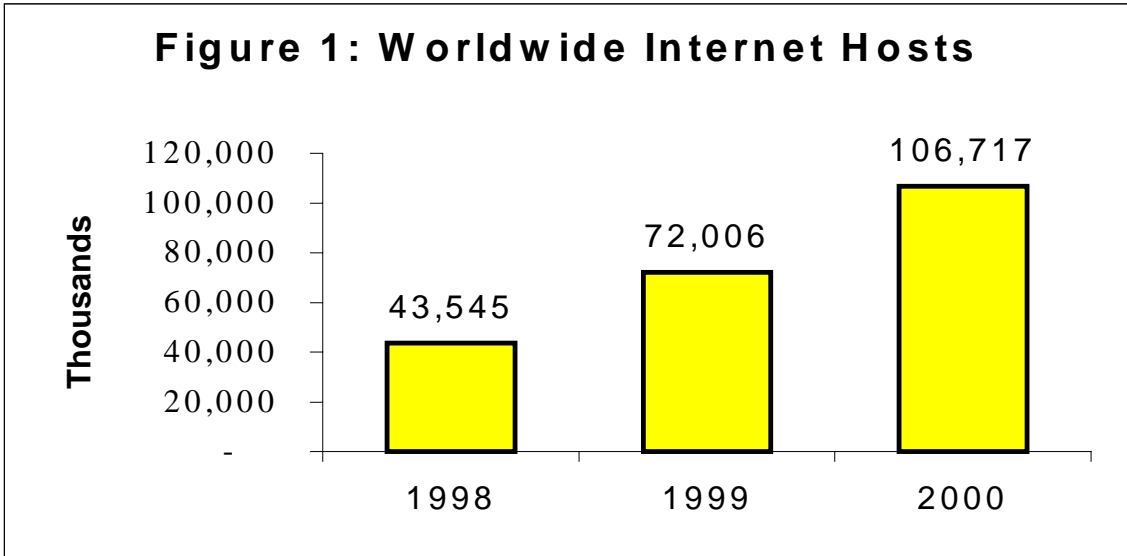
Chaitoo (2000) noted that the most developed countries (MDCs) within the region are merely trying to catch up on the policy framework front with e-commerce issues, while the other Member States are significantly entrenched in the digital divide phenomenon vis-à-vis North America and other developed nations (Table 3). More revealing is how Caribbean States are more locked in the digital divide, as the Internet technologies distribution suggests (Figure 1).

Table 3: World Internet Indicators-2000.

CARICOM	Hosts Total	Hosts per 10'000 inhab.	Users per 10'000 inhab.	Estimated PCs Per 100 inhab.
Antigua & Barbuda	314	40.95	652.03	....
The Bahamas	24	0.79	431.58	....
Barbados	100	3.74	222.82	7.80
Belize	293	12.16	622.41	10.63
Dominica	187	24.24	261.44	6.54
Grenada	3	0.32	435.56	11.78
Guyana	59	0.69	35.07	2.45
Jamaica	1,472	5.71	234.35	4.30
St Kitts & Nevis	4	1.04	516.10	15.48
St Lucia	34	2.18	195.18	13.66
St Vincent	2	0.18	308.57	9.72
Suriname	10	0.24	280.79	....
Trinidad & Tobago	6,596	50.96	330.28	5.42
G7 Countries				
Canada	2,364,014	786.78	4,130.07	39.02
France	1,122,407	190.89	1,445.58	30.48
Germany	2,040,437	248.30	2,920.57	33.64
Japan	4,640,863	365.66	3,709.45	31.52
Italy	1,019,711	177.97	1,047.16	20.94
United Kingdom	1,677,946	280.75	2,576.72	33.78
United States	80,566,947	2,928.32	3,465.78	58.52

Source: ITU, (Internet host data: Internet Software Consortium, RIPE) 2000.

.... Means not available.



Source: ITU, Internet Indicators, 2000.

Chaitoo stressed the importance of, and recommended that CARICOM Governments begin to collect data on e-commerce activities in order to inform their policy makers regarding preparations for the digital economy. Given the obvious implications of such lack of data, this paper supports Chaitoo's views on the gathering of data on e-commerce and related activities. But, such a view is supported in the context of guiding fiscal policy makers that will find it

increasingly difficult to cope with the advancements of the digital economy. More so, since businesses tend to exploit the opportunities that technology offers. What should also be recognised is that commitment, in part, begins with some awareness of the issues. The lack of awareness of the level of e-commerce activities is in part responsible for the lack of commitment in developing strategies and considering required legislation to facilitate the development and expansion of e-commerce in the Caribbean Community.

The Government of the Bahamas in its budget (2000-2001) pledged to ensure that the country becomes a knowledge-based economy and a centre of excellence for e-business. The Government further claimed that Internet access will be provided to all schools free of charge and will be funded by contributions from all licensed telecommunications operators on a proportionate basis. The Government of Barbados has also shown their commitment to addressing e-commerce in their domestic economy. The Barbados “Electronic Transaction Act 2001-2” is evidence of such. The Act mandated enterprises to record, and allow specific authorities to use and/or inspect their electronic transaction records whenever they deem necessary. While this Act does not explicitly cater for taxation of electronic transactions, it’s a step in the right direction. By requiring enterprises to record and make available their electronic transaction records, the fiscal authorities can access records of transactions that can in the future be subject to tax. The Governments of Grenada, St Kitts & Nevis, St Lucia, St Vincent & the Grenadines and Dominica have recently welcomed an agreement with Cable & Wireless Ltd., to dissolve their monopoly. This agreement allows these Governments to undertake investment in call centres and information services, and the expansion of Internet service providers, all e-commerce related. This indicates a step towards the digital information revolution and reflects to some extent commitment on behalf of the aforementioned Governments. In Antigua there is need for legislation, since a considerable amount of offshore, e-commerce-related activities is prevalent in that economy (**Table 4**). This Member State has the highest number of users per 10, 000 inhabitants! In Jamaica there seems to be a vibrant Internet and e-commerce environment with promising growth potential. However, the appropriate technical and regulatory frameworks have to be put in place. Trinidad and Tobago (T&T) are clearly the “trend-setters” of e-commerce and related businesses in the region, as **Table 4** shows they have the most internet hosts, 6,596, comparable to that of the Solomon Islands. In T&T there is also an e-commerce Committee that makes recommendations, where necessary to the Government. In June 2000 the Committee submitted a report to the Cabinet on the status of e-commerce and made several recommendations. One of the recommendations made is for Government to introduce legislation to deal with electronic transactions.

Table 4: Digitised Products revenues from tariffs, additional customs duties and taxes

Member States	DP tariff revenue In US\$ 000	DP cons. Tax Revenue in US\$ 000	DP tariff and custom, & sur-charge revenue in US\$ 000	DP all tax and tariff revenue in US\$ 000
Antigua & Barbuda	85	229	133	361
The Bahamas	....	....	....	....
Barbados	145	743	145	888
Belize	104	248	104	353
Dominica	13	146	75	221
Grenada	13	317	92	409
Guyana	114	0	114	114
Jamaica	692	2,274	692	2,965
Montserrat	4	66	54	120
St Kitts & Nevis	25	386	102	489
St Lucia	21	723	127	850
St Vincent	16	0	39	39
Suriname	96	0	136	136
Trinidad & Tobago	449	1,789	449	2,238

Source: UNCTAD calculations

.... Means not available

E-readiness seems to be a national priority in Montserrat, but there is no e-commerce plan or strategy currently in place due to the economic effects of the volcanic crisis of 1995. In Belize they are some e-commerce activities. For example, their successful private free trade zone that consists of information technology (IT) parks concentrate mainly on Internet gaming. However, there is no formal national e-commerce plan or strategy and no legal framework to support e-commerce transactions. The Ministry of Finance controls whatever national level initiatives there are, as all proposal need to be approved by them. For Guyana there is a draft on IT policy for consideration but the desire to promote and develop this type of sector is at a standstill. This apparent lack of will to pursue and develop such a sector is primarily due to the fact that primary exports, the pillar of Guyana's economy, cannot be readily traded on-line. Additionally, the country is yet to fully integrate a credit card system into its financial marketing transactions. In Suriname e-commerce activities seem to be of little priority to the government and as such have not received much attention. This is something of a wonder since the country

is bi-lingual (Dutch and English) and can offer e-services to the Dutch-Netherlands, Europe, and the English speaking America's.

Altogether the evidence indicates that there is much to be done in CARICOM Member States to increase the awareness of, and commitment by all Government on this issue. This is critical since e-commerce in many ways helps to increase businesses' efficiency and plays an important role in providing companies with a competitive edge. As a result firms and businesses in the Caribbean Community seeking to exploit the opportunities e-commerce has to offer will experience changes in their business models and processes. Similarly, in the least, tax planning will have to be altered to cater for those changes, due to the sensitivity of some business process and their implications for tax revenues.

Governments in the Caribbean will also need to examine ways of bring down the high transactions costs currently associated with e-commerce in the Caribbean. It is well established that high telecommunication tariffs can be a major stumbling block for e-commerce (Table 5). Furthermore, in Guyana, the cost for being attached to the Internet per month is equivalent to a quarter of the monthly minimum wage.

Table 5: Costs of calling to selected Caribbean Countries from the US (per minute)

Country	Global Cell	AT&T	MCI
Guyana	0.90	0.88	0.87
Haiti	0.56	0.51	0.49
Jamaica	0.46	0.47	0.45
Trinidad and Tobago	0.30	0.37	0.35

Source: Global Cell, AT&T and MCI rates

However, devising of a package of telecommunications liberalisation measures can lead to lower prices and to more flexible pricing schemes. The World Trade Organisation (WTO) Agreement on Basic Telecommunications should contribute directly to the emergence of a global marketplace in e-commerce. Similarly, recent international agreements to eliminate tariff (ITA) and non-tariff barriers (MRA) should rapidly bring down the cost of key IT products, encourage the take up of e-commerce, and increase the competitiveness of Caribbean products. Removing bottlenecks and providing high-bandwidth infrastructure is another challenge for the Caribbean - a challenge that needs to be actively pursued by both the private sector and the regulators.

Ensuring interoperability in a competitive environment is another powerful incentive. CARICOM should strive to promote global interoperability in such key areas as secure technologies and payment systems, and giving special importance in a number of research and development (R&D) programmes to e-commerce to ensure wide availability and ease of use of key technologies and systems.

What are the views on the tax implications of e-commerce?

The available literature on e-commerce in the Caribbean Community, for the most part, is descriptive and traces the development and current status of Member States digital economy. The literature highlights the relevance of e-commerce within the Caribbean Community; what is available and what is required to facilitate a proper e-commerce environment; where and in what aspects Member States are lagging; and other benefits the Caribbean Community can derive from e-commerce. In relation to the impact of e-commerce on tax revenues, the literature in some cases vaguely addresses the issue³, in others it is non-existent and for the vast majority the issue of taxation of e-commerce activities and transaction, rather than, the tax revenue implication of e-commerce activities is examined.

At the international level there is a vast literature on e-commerce and its implication for tax revenues. However, this literature is skewed in favour of developed and newly industrialised countries. In some cases the literature gives detail assessment of the possible implication of e-commerce on tax revenues⁴, in others they make general mention of possible tax implication. Consequently, the focus of this paper is pioneering in its attempt to address the issue of e-commerce and its implications for tax revenue in the context of the Caribbean Community. It is nevertheless useful to examine the perspectives and arguments of the available literature.

There is a correlation between the nature of transformations in business process and key tax issues arising. According to Graham and Heiselmann (1999:9). *“With any major change in business conduct, consideration should be given to key direct and indirect tax issues such as: Taxes on Income, at national and local level; International tax, including foreign and controlled foreign company taxation and withholding taxes; Capital gains, e.g., on intellectual property rights or goodwill; VAT and Sales & Use taxes; property taxes; Customs and Excise duties; and*

³ See Electronic Commerce and CARICOM Economies: Strategic Considerations for Governments. Ramesh Chaitoo, 2002, p. 47.

A Rainbow Technology for a Rainbow People: E-Business Capacity Development for the CARICOM. Alwyn Didar Singh 2001, Report of a diagnostic Mission, draft 15.9.01, p. 69,128.

⁴ See Teltscher, 2002.

Stamp and transfer taxes.” Essentially, Graham and Heisilmann (1999) suggested that changes in business, due to technological advancements such as e-commerce, lead to new business models and in turn create a new set of facts and circumstances that can materially affect the incidents of taxation. Therefore, to ensure the tax efficiency of evolving new business model tax planning needs to be consistent with the changes that are taking place, to prevent the escalation of possible tax evasion. Hence, as Honer and Hardy (1999) suggested, flexibility is important, particularly to ensure that tax systems keep pace with technological and commercial developments.

Chaitoo (2000) noted that traditional domestic commerce within national markets and cross-border electronic trade involving physical goods that pass through customs will continue to face customs duties and value-added taxes but products delivered electronically will not. A similar pattern may emerge internationally if electronic commerce is taxed in some countries but not others. The same applies to corporation taxation. Firms operation on the Internet could relocate to tax havens and shield them from Income tax. Therefore as e-commerce increases in volume and popularity, there will be implications for the ability of governments to raise revenues through traditional mechanisms like sales and corporate taxes, value-added taxes, and tariffs. Hence, it is highly likely that as government obtain less revenue as tariffs decrease as a result of trade liberalisation, they will be tempted to shift to sales taxes and various consumption taxes to make up for losses at the border.

Singh (2001) supports Chaitoo’s position. He added that the essential problem of duty or tax occurs only when e-commerce has taken place in a digitised format i.e., where all parts of the transaction have been completed ‘on-line’ in digital or computerised format and no goods have directly passed through a recognised customs or domestic tax point.” Where e-commerce has been used only to communicate and set up a transaction and the actual delivery is by regular means, the existing tax and duty regulations and procedures continue to apply and can be monitored. For digital supplies the problem for the authorities is to monitor or even be aware that a transaction has taken place.

However, an extreme position is taken by Lurie and Perrin (1999) in sighting an example from New Zealand. They argued that structures are put in place to exploit the benefits of the Internet in order to minimise VAT, while on-line delivery assist in avoiding Goods and Services Tax (GST)-consumption taxes. More serious is the extent to which the Internet can and is being used by genuine offshore trading entities of modest size which are resident in low or nil-tax jurisdiction for significant trading transactions that fall outside the scope of most countries’

corporate income tax regimes. These are issues which Caribbean countries cannot and should not turn a blind eye and need to begin addressing.

Cohen (1997), Ganguly (1997), Andal *et al*, (1997) all examined possible challenges tax planning and policy are expected to encounter. More so, indirect tax issues that relate to VAT and goods and services taxes. They perceived these areas to be the most problematic since identifying key “taxing points” becomes increasingly difficult with the use of the Internet for e-commerce transactions.

In an attempt to quantify the fiscal impact on international e-commerce Teltscher (2002) using *potential* and *upper bound* estimates from 1999 data, concluded that developing countries will face higher losses from customs duties, which make up higher shares in their national budget compared with developed countries. They will have less flexibility to replace those losses by shifting to other revenue sources. Further, Teltscher (2002) noted that in the short and medium term, developing countries would be net importers of e-commerce and hence will run a greater risk of losing tariff and tax revenues if traditional imports are replaced by online delivery. Therefore, the development of efficient tax collection systems for e-commerce should be a priority for all CARICOM and developing countries.

From a general standpoint the debate on the implications of e-commerce on tax revenues seems to be inconclusive. But, for the most part, there seems to be some consensus on two concepts. Firstly, that tax planning, policy and administration will have to evolve with changing business technology to cater for new uncertainty inherent in changing business processes that may have tax implication. Secondly, there seems to be agreement that e-commerce is likely to affect (negatively) tax revenues of goods and services that can be digitised. These notwithstanding, e-commerce can facilitate international trade and transactions in a positive way.

Intra-Regional trade and the implications of e-commerce on tax revenues

The co-operative behaviour among governments in CARICOM for the facilitation and implementation of a Single Market and Economy (CSME) has brought about many obligations and commitments to Member States. One such commitment is to pursue tax Harmonisation, one of the main functions identified to enhance the operations of the CSME. The earliest effort of tax harmonisation was the formation of a customs union, through the design and implementation of the Common External Tariff (CET), Peters (2001). Central to the issue

discussed in this paper is the fact that the customs union abolished export duties and **duties on intra CARICOM trade conditional on certain rules of origin** (see Article 17, Protocol IV).

As B2B and business to consumer (B2C) interactivity increases due to the continued and increased use of e-commerce in the region there will be some impact on intra-regional trade, *ceteris paribus*. If trade volumes among Member States increase, and the concomitant increase in consumption tax revenues are proportionately larger than the tariff (custom duties) waiver then revenues should increase. Of course the increase in trade volumes among Member States will depend on the elasticity of demand for goods from the region and whether or not the union has created trade diversion. Otherwise, if intra-regional trade volumes remain the same or decline, then, *ceteris paribus*, Member States will lose customs duties on goods of community origin since the corresponding consumption tax revenues would not. If consumption tax revenues increase however this will be nominal.

For goods of community origin that can be digitised, such as books, music (CDs), etc., there can be a potential loss of consumption tax revenues such as VAT, should there be an increase in the on-line delivery of these goods intra-regionally. However, this will depend on several factors, i.e., access to a computer and the internet, knowledge of computer and internet usage, confidence in making purchases on-line, ability to make on-line payments, which will in turn depend on whether or not consumers “deal in cash” or have credit cards etc.

In the area of services there is the largest potential for tax revenue losses. This is particularly the case for B2B transactions on private Intranets for regional conglomerates. The potential for tax revenue losses are great for three primary reasons. Firstly, the tax authorities (administrations) in the region is neither equipped with the technical staff nor technology to keep abreast with the forward mobility of businesses and in particular businesses that utilize e-commerce technology in abundance. Secondly, these administrations do not have the resources to develop the capacity to cater for the development of businesses and technology. And finally only in Barbados are there Legislation mandating businesses to record and report their transactions that are e-commerce related, for other Member States such Legislation is non-existent.

Extra-Regional trade and the implications of e-commerce on tax revenues

Extra-regional trade has always been one of the primary reasons for unfavourable trade balances in the Caribbean Community. Too much imports and consumption of foreign goods,

and in some cases services, are often identified for some of the region's economic woes. Therefore, goods and services that do not qualify under Article 17 of Protocol IV, nor have community origin should be of some concern.

On the one hand, e-commerce can be an addition to current trade values. For physical goods and Services that still passes through convenient "taxing points" if e-commerce facilitates its Increase trade there can be significant consumption tax and tariff revenues increases in the region. This is so at least for Member States where Internet facilities are available at relatively economical prices. A simple case study of the reconditioned vehicles' Market in the CARICOM is illustrative.

Case Study: CARICOM imports of recondition motor vehicles and mini-buses

Prior to the launch of the Internet in most CARICOM countries motor vehicles, even though on the rise, were not as many as they are currently. Additionally, they were very few local motor vehicle dealers. Entry into the market was highly restrictive and was seen as a high-risk business for several reasons, particularly in Jamaica and Guyana. Furthermore, there was:

- Limited access to suppliers;
- Limited information on motor vehicles; and
- Very high transaction costs.

For the most part, the result was high priced motor vehicles and limited variety. Hence, in most Member States Government run public transport systems were prevalent. With the introduction of the Internet, e-commerce facilitated the growth of the recondition motor vehicle market. Governments can now afford to deregulate the transportation sector and depend on private business enthusiasts to provide transportation for the public.

What has transpired with the advent of e-commerce through the Internet is remarkable. There has been a significant increase in the number of recondition motor vehicle dealers. The "ordinary person", with little knowledge of how to use the Internet can go on-line and purchase a motor vehicle. Readily available on sites such as: <http://www.nikkyo.gr.jp>; <http://www.japanesevehicles.com>; <http://www.braveauto.com>; and <http://www.arabtradingcompany.com>, where there are full details on a wide variety of motor vehicles. These sites usually show the vehicles, their full specification, price, cost of shipping and insurance, and various payment forms. This technology has contributed to transaction costs

being significantly less. It has also provided full access to the suppliers, their stocks and other necessary information.

Today one can see a variety of vehicles on the roads of Member States, and a significant increase in volume. Further, with other adjustments such as the deregulation of the transportation sector in most Caribbean countries, private individuals owning mini-buses for instance cater for internal transportation in most Member States. Such increase in volume in particular has significantly contributed to increased tax revenues. Tax revenues in the form of customs duties and consumption taxes have increased. In addition, most Member States have introduced a new tax (an environmental tax) partly to cater for the pollution caused by these vehicles. This “new tax” has also contributed to increased tax revenues in the Caribbean Community.

While e-commerce has had such a phenomenal impact in the recondition vehicles market, this is not necessarily the case for the wider (consumer) product market. This however cannot be confirmed (for the product market) since the necessary data is not readily available. Therefore, the full impact on tax revenues is still being investigated.

On the other hand, e-commerce can have a negative impact on trade volumes in Caribbean territories and consequently revenues in general. This is particularly due to the negative consequences associated with unfavourable trade balances, in this case if e-commerce adoption and expansion in the region results in a net increase consumption of imports. While there is a possibility of increase consumption tax and tariff (custom duties and the CET in the case of third parties) revenues, due to the increase consumption of imports, it is the overall impact on the Gross Domestic Product (value) that will determine whether revenues have expanded or contracted.

The Possibilities for erosion of tax base through e-commerce

Hypothesis 1: Products of a purely digitised format.

Digitised products are defined as goods that can be sent both physically via carrier medium and electronically via networks. They include five product categories: (1) Printed matter e.g. books, (2) Software, (3) Music and other media, (4) Film, (5) Video games. Product of these types can be traded on-line without passing through traditional convenient “taxing points”.

Instead of going to the local store to purchase a CD, DVD, or book, one can go on-line and purchase either of these products in digital form without the fiscal authorities being aware. Therefore, this represents a possible source of potential loss of tax revenues since the parties to the transaction are not easily identifiable. Fortunately the current consumption of digitised products in some Member States do not indicate that there can be significant tax revenue losses, while in others they represent a sizeable sum, (**Table 4**). Nevertheless, developments in extra-regional trade and the consumption of digitised products should be monitored for future tax revenue implications.

Technological advancement of firms in the CARICOM region that sell products that can be digitised may also prompt large-scale sale of such product on the Internet to customers and retailers outside of the region. This is foreseeable since estimates of online purchases are growing at a phenomenal rate, and businesses in the region will want to take advantage of the Internet to sell their products. Hence, there can also be tax revenue losses from online companies located in the region, specifically companies at the intermediate level of the distribution chain.

Hypothesis 2: shifting from traditional principles of taxation.

With e-commerce through the Internet problems arise for tax planning, policy and administration that can affect tax revenues. This is linked to the fact that e-commerce challenges the traditional principles of taxation. More so, for tax administrations in the CARICOM region that has limited resources and skills to keep apace with the rapid technological developments that help to increase businesses' efficiency.

Many companies selling to customers in another country usually set up a branch of similar operations to handle administrative matters etc., in that country. This creates a convenient and favourable basis for which the fiscal authorities levy taxes. Taxes are levied using the Permanent Establish (PE) principle. This principle has long been used to determine whether or not the operations of an enterprise constitute a taxable presence in the country concerned. Establishing this taxable presence usually meant that the business would be liable to tax on the trading Income and Capital gains attributable to that PE. This resolves potential conflict of whether the country of source or the country of residence has the right to impose a tax on a particular transaction. However, the difficulty with the PE principle and e-commerce is that the link between an income producing activity and a specific location is blurred, since it is

not clear whether a website on a server is a PE. What this leads to is the question of whether or not e-commerce through the Internet can lead to Tax evasion and/or tax avoidance?

It has been recognised in a study conducted by the IRS, that tax evasion can occur when e-commerce businesses in particular mask their identities. This is most common among small and medium size business. Current website name and registration procedures require nothing more than a credit card. There is no existing process to accurately verify ownership or the physical location of the beneficial owner of the website. Therefore, the possibility of tax evasion is very likely through e-commerce activities.

However, the OECD agreement establishing the conditions and scenarios under which a Permanent Establishment is determined provides some clarity on the issue.⁵ Hence, as the UNCTAD 2001 suggested this agreement should be adopted by developing countries since they are net importers of e-commerce and are more open to risks associated with revenue losses due to online delivery.

Further e-commerce also makes it easier for business to migrate “overseas”. Of course there can be legitimate commercial reasons why businesses move to another jurisdiction, but there is also a desire to reduce and avoid tax. This highlights another area that has consequences for tax revenues. Since e-commerce provides such mobility and flexibility, businesses will be tempted to locate in low and nil taxed jurisdictions. Consequently, this represents a source for erosion of tax bases.

The use of tax competition policies to diversify some Caribbean economies has brought much touting and labelling of these jurisdictions as “tax havens”. There is evidence to suggest that the economies in the Caribbean can be a preferred location with the advent of widespread e-commerce. In the event they are not however, fiscal authorities have much to worry about as it relates to tax revenues. More so, when countries outside the region encourage tax incentive growth and development.

It is conceivable that the concerns of shifting taxation principles due to the flexibility that e-commerce affords businesses, necessitates changes in planning, policy and administration for both direct and indirect taxation. This is essential to minimise, and possibly eliminate growing uncertainties that are created with the advances in e-commerce that can have negative tax revenue implications.

Conclusions

It is evident that e-commerce will have mixed outcome on tax revenues in the Caribbean Community. In relation to trade, for there to be increased imports due to e-commerce the product market and the method of buying and selling therein must adopt to the tools and mechanisms of the virtual economy. It will also be essential to avoid regulatory inconsistencies and to ensure a coherent legal and regulatory framework for electronic commerce at the CARICOM level. These should be based on the application of key Internal Market principles.

Regulatory responses, where appropriate, need to be addressed at every step of the business activity, from the establishment of business, to the promotion and provision of electronic commerce activities, through conclusion of contracts, to the making of electronic payments. In parallel, a number of key horizontal issues affecting the e-commerce activity need to be addressed. These include data security, protection of intellectual property rights and conditional access services, privacy, as well as a clear and neutral tax environment.

Policy-makers will also be hard-pressed to reinforce awareness and confidence in e-commerce for customers, as well as encouraging best practice among Caribbean businesses, particularly through SME programmes, support actions, and pilot schemes. Simultaneously, public administrations will have a key role to play through their procurement power and their early implementation of key e-commerce technologies.

It is clear that the sale and consumption of purely digitised products, particularly with third countries, is a lucrative source of potential loss of tax revenues for Member States. Of course the size of revenue loss will be influenced strongly by the volume of online trade in digitise products. This will in turn depend heavily on how the Caribbean territories adopt to the Internet age.

Further, measures of collecting data on the digital economy will also be required to assist in the monitoring of events and trends as they unfold. This will help to inform tax planning, policy and administration in Member States. As the pace of e-commerce development is much faster than the ability of the relevant fiscal authorities in Member States to react to changing business models and processes that may have tax implications.

⁵ See “E-Commerce and Development Report 2001” by UNCTAD 2001.

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