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A Jamaican Ecommerce Blueprint

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Preface

The Government of Jamaica requested expert assistance from the Commonwealth Fund for Technical Cooperation to:

- develop an ecommerce strategy, which targets four key sectors in the Jamaican economy (ie, information technology, banking and finance, tourism, and music and entertainment); and
- provide assistance to strengthen the institutional capability of the regulatory agencies which support ecommerce activities.

The Allen Consulting Group, an Australian economic and policy advisory consulting company with considerable experience in ecommerce and regulatory analysis, worked with the Commonwealth Secretariat to prepare this Discussion Paper.

This Discussion Paper has been prepared after consultation with Jamaican stakeholders in the Government of Jamaica, business, and the community. The project team thanks these stakeholders for their time and support.

The final report will reflect further feedback on the ideas and suggestions advanced in this Discussion Paper.

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Introduction

“The time has come to take a clearer view of the Internet. We need to move away from the rhetoric about “Internet industries”, “e-business strategies,” and a “new economy” and see the Internet for what it is: an enabling technology — a powerful set of tools that can be used, wisely or unwisely, in almost any industry and as part of almost any strategy.”¹

Jamaica cannot afford to take any other than a ‘clearer view’ of the Internet when framing strategy to develop ecommerce on the island. The scepticism evident in Porter’s seminal *Harvard Business Review* article is well founded. The bursting of the ‘dot com’ bubble and other recent developments have resulted in investors, businesses and governments wasting resources where the Internet and ecommerce have not lived up to expectations.

A fundamental approach of this study is to examine actual market conditions. Many studies look at the issues as if the task was to plan for the development of ecommerce in business from scratch. That is clearly not the case. In Jamaica, as in almost every country, use of the Internet for business is outstripping policy and planning. Planning in this area must be based on what is happening already and what is likely to happen next.

Observation of business in recent years shows that while ecommerce and the Internet have not always taken directions that are easy to predict, it is clear that they are still extremely important new technologies. These technologies are being embraced around the world by businesses and consumers, governments and communities. It is likely that, similarly to many other countries, Jamaica’s future will be shaped by decisions taken now about the nature of engagement in the increasingly globalised economy and intensified competition that the Internet is bringing.

The thrust of this Discussion Paper is to suggest ways of using the enabling powers of ecommerce to provide sustainable long term benefits for the Jamaican community. It proposes a pragmatic approach that reflects Jamaica’s underlying strengths and weaknesses.

This Discussion Paper is divided into five parts:

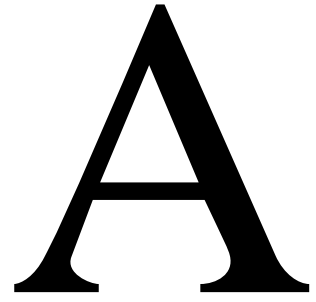
- Part A (Chapters One) — this chapter provides the background and context for the remainder of the report;
- Part B (Chapters Two and Three) — these chapters outline the framework on which the report’s recommendations are based and discusses the general strategic priorities that need to be addressed in order to advance the use of ecommerce in Jamaica;
- Part C (Chapters Four to Seven) — these chapters address the use of ecommerce in the four key sectors identified by the Government of Jamaica:
 - information technology;
 - banking and finance;
 - tourism; and

¹ Porter 2001, ‘Strategy and the Internet’, *Harvard Business Review*, vol. 79, no. 3, pp. 62-78 at 66.

- music and entertainment.
- Part D (Chapter Eight) — this chapter brings together the actions identified in Part C and outlines priorities for their implementation; and
- Part E includes appendices that support the body of the report.

FEEDBACK SOUGHT

The project team is seeking feedback on all the matters raised in this Discussion Paper. Parties interested in meeting with the project team to discuss matters raised in the Discussion Paper, or wishing to provide written comments, can do so by contacting the project team at jamaica_ecommerce@allenconsult.com.au.



Part A

Context

Chapter One

The Challenges and Opportunities for Ecommerce in Jamaica

At its core, ecommerce is broadly about undertaking business processes in a networked electronic environment, especially over the Internet.

Despite the hype, very little ecommerce is about undertaking an Internet transaction for the sale or purchase of goods or services. In the countries that reliably measure the value of Internet sales, total Internet sales currently range under two percent of total sales. However, and the point that inspires such interest in ecommerce, is that while the proportion of electronic transactions is small, there is evidence that it continues to grow at a rapid rate.²

Sales-related activities are more common on the Internet than sales:

- international statistics and day-to-day observation of the world wide web shows that most web sites contain marketing information and sales material. Many provide after sales service or the opportunity to deliver digitised products and services (eg, software and pictures);
- business and government agencies tend to use the Internet and ecommerce more to find a better deal than to make a sale. Cost reduction is often the main motivation for involvement in ecommerce. Choosing from the lowest cost supplier, better management of inventories, receiving goods and services online, are important opportunities that stem from access to the Internet; and
- the Internet has made it is easier for government, businesses and consumers to find information to support purchasing decisions. A little over a decade since it became a commercial product, in most advanced countries email is nearly as ubiquitous as the telephone in business, government and society at large. The ability to browse and search the web has added significantly to the information able to be read and analysed by anyone with a computer and Internet connection.

The key observations are that ecommerce is changing the way business is and will be done. In particular, consumers and businesses will both use ecommerce to bypass 'middlemen'. In some cases the bypass is of information providers (eg, marketers, agents, and so on), and in other cases the bypass is of supply channels (eg, retail shopfronts, transport, handling, etc).

Even though actual sales over the Internet are relatively small in absolute terms, the sales-supporting uses of the Internet demonstrate that ecommerce's reach is broader than may be implied from official statistics. As a result, ecommerce is inspiring and forcing businesses to take a new look at what they do, to reassess the competition, to collaborate in new ways, and to identify new customer bases.

² Organisation for Economic Cooperation and Development 2002, *OECD Information Technology Outlook: ICTs And The Information Economy*, OECD, Paris.

1.1 E-Readiness

Jamaica is at a rudimentary stage of ecommerce capability (see Table 1.1). In particular:

- nine percent of Jamaican businesses are estimated to have invested in obtaining access to the Internet; and
- only two percent of Jamaican businesses have a website.

Table 1.1

INDICATORS OF JAMAICAN BUSINESS INTERNET READINESS

| Activity | Output |
|--|--------|
| Total number of registered businesses in Jamaica | 48,978 |
| Number of Internet connected businesses | 4,458 |
| Estimated Internet business penetration rate | 9% |
| Estimated number of business with a web presence | 1,000 |
| Estimated website penetration rate | 2% |
| Total number of ICT sector companies | 96 |

Source: Allied Research Associates 2002, p. 80

The available research suggests that Jamaica is still at an incipient state of e-readiness. A recent detailed assessment of Jamaica's e-readiness painted a challenging picture:

“In brief, the country has good telephone infrastructure; low Internet connectivity, computer ownership and level of commerce; reasonably diffused electricity distribution but not cost effective or reliable services. Innovations are rare; venture capital scarce; institutional forces, social and political relationships often distort market forces; there are scarce administrative, technical and managerial talents in the area of information and communication technology; and the investment climate is sullied by the high crime rate security related costs.”³

Translated by the Government of Jamaica, these findings have been taken to indicate that, “e-commerce in Jamaica is in its fledgling stage”.⁴

1.2 Ecommerce In Practice

E-readiness is in many ways a one sided perspective. Concentration upon e-readiness alone is to take a supply driven approach. That is, to take a ‘build it and they will come’ approach.

Realisation that Jamaica is not yet fully prepared for ecommerce should not be read that little is happening. In much the same way that the Internet has quickly gathered size and momentum from modest beginnings, businesses in Jamaica are making use of ecommerce.

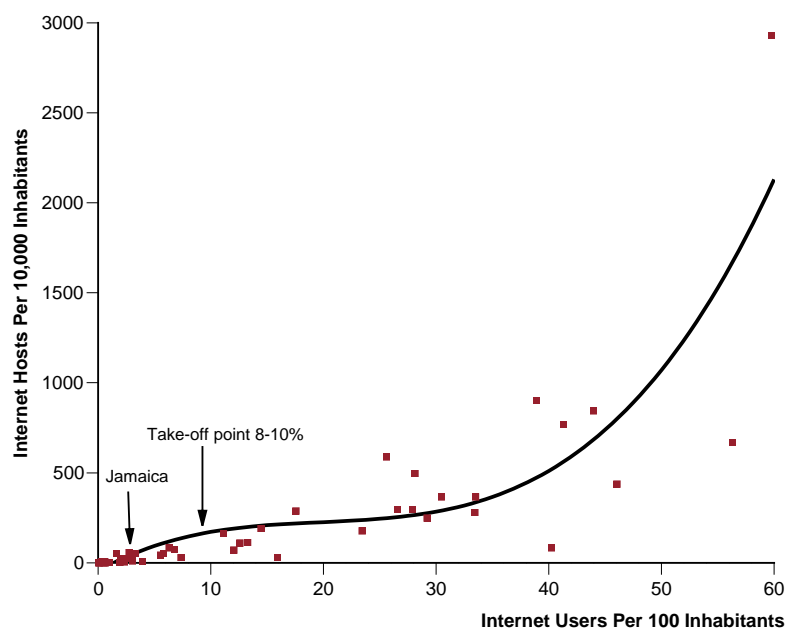
³ Allied Research Associates 2002, *Jamaica's E-Readiness Assessment*, Ministry of Industry, Commerce & Technology Government of Jamaica, Kingston, p. 85.

⁴ Government of Jamaica 2002, *A Five-Year Strategic Information Technology Plan for Jamaica*, Kingston, p. 54.

Jamaica is progressing down the path established by other ecommerce and Internet economy adopters. There is evidence of a close relationship between the proportion of the economy actively online and the number of web hosts (sites used for business and other services). Basically countries struggle to raise host numbers and be involved in ecommerce while the Internet population remains under eight percent of the total. Once they exceed this they have reached the take-off point and gather momentum before really accelerating host numbers and the level of ecommerce. See Figure 1.1.

Figure 1.1

THE ECOMMERCE TAKE-OFF POINT



Source: Centre for International Development, Global Information Technology Report 2001-2002: Readiness for the Networked World, viewed 25 July 2002, <http://www.cid.harvard.edu/cr/profiles.html>

FEEDBACK SOUGHT

Should the Government of Jamaica aim to reach within five years the 'takeoff point' of eight to ten Internet users per one hundred inhabitants?

There is emerging evidence to suggest a higher rate of computer use and Internet awareness by Jamaican business than was previously believed. For example, a recent survey of small business in the Kingston area indicates that:

- over 40 percent now use computers in their businesses;
- 31 percent indicated their intent to purchase computers; and
- around nine percent had Internet access while five percent had websites.⁵

Of course, businesses in the capital and largest city are likely to be closer to lead than many other businesses in other parts of Jamaica.

⁵ Allied Research Associates 2002, *Jamaica's E-Readiness Assessment*, Ministry of Industry, Commerce & Technology Government of Jamaica, Kingston, p. 85.

Despite the limited IT and Internet penetration, Jamaican business websites are integrated into the supply chains of the new economy and are listed and prominent on global portals such as Yahoo.⁶ People looking for goods and services that Jamaica sells can find Jamaican business online. Jamaica is on the ecommerce map.

Different Jamaican industries have embraced ecommerce at different rates. This can be seen by looking at the four key sectors identified for this study:

- *tourism* — this is probably Jamaica's most well developed sector from an ecommerce perspective. There is a wealth of Jamaican accommodation, transport and tourism activities marketed on the Internet. The large majority are medium to small scale operators. However, inspection of many sites indicates that many are operated overseas;
- *music and entertainment* — this is another very vibrant sector of Jamaican ecommerce activity. Artists, publishers, and content aggregators and interest groups abound about reggae music and culture. Opportunities for online commercial transactions are limited in this medium at present because of challenges that impact globally (including the oligopolistic nature of the global industry and difficulties in protecting intellectual property for digitised and easily copyable material), but there is evidence of considerable commercial activity including promotion, advertising, and sponsorship. As with tourism, many websites appear to be hosted outside of Jamaica;
- *information technology* — stakeholders spoke often about the innate strengths of Jamaicans in this sector and provided anecdotal evidence of this impacting on commercial and economic opportunities. It was also apparent that while many Jamaicans have considerable talent and technical skills, it has proven difficult to build up a numbers of Jamaican businesses. Government purchasers of IT services complained that the companies that were in Jamaica lacked depth and capacity to undertake large assignments and so they had little alternative than to import skills. It seems that many Jamaicans with skills in this area leave the island (some ironically work on websites about Jamaica from overseas); and
- *financial services* — Jamaican banks, finance companies and insurance appear to be ecommerce laggards. Not all of these institutions have websites, and those that do have a very low level of functionality. This stands in stark contrast to the experience in other countries where banks have been at the forefront of ecommerce and obtained significant benefits.

(Details of the analysis supporting these summary comments are provided in Part C of this report.)

The overall picture is that there is evidence of a small but vibrant ecommerce presence about Jamaica.

1.3 Further Challenges.

As in many other countries, anecdotal evidence suggests that the majority of Jamaican businesses that have a website are larger, or more established businesses. With some exceptions, the majority of smaller businesses in Jamaica do not have an ecommerce capacity or presence on the www.

⁶ Jamaica also has its own portal sites. For example: <http://investjamaica.com>; <http://www.jamaicatradingpoint.com.au>; <http://www.go-jamaica.com>; <http://www.jamaicanetlink.com>; and <http://discoverjamaica.com/shop>.

Only a small portion of businesses appear to conduct transactions online, with most engaged in promotional activities, and using the Internet for communications and research, including when looking to improve purchased inputs.

The marketing thrust of many websites appears to be to reach into existing markets. Many tourism sites, for example, are targeted at the US audience. Others offer improvements in existing services (eg, mail order) for Jamaicans overseas. This works with and enhances existing strengths. The sense of the research team in reviewing Jamaica's existing websites was that there was less emphasis on developing new markets and new sources of growth.

Comparative data suggests that there are fewer websites in Jamaica than one would expect, even after taking into account its size and general e-readiness.⁷ It also appears there are fewer Jamaican websites than other countries in the Caribbean and other comparable countries elsewhere. Meanwhile investigations by the project team shows that there are in fact a vast number of websites about Jamaica. These sites are very sophisticated providing considerable services to users, very often including the possibility of making online transactions. However, closer inspection of these sites reveals that the majority of them are owned and operated overseas, mostly in the US, Canada, with some hosted in other Caribbean countries.

This reveals a key challenge: much existing ecommerce activity about Jamaica is not conducted in Jamaica by Jamaicans.

1.4 SWOT Analysis

Given these forces of change, Table 1.2 reflects the strengths, weaknesses, opportunities and threats that ecommerce poses to Jamaica's business environment.

⁷ See Kirkman, Cornelius, Sachs and Schwab 2002, *The Global Information Technology Report 2001–2002: Readiness for the Networked World*, Oxford University Press, New York.

Table 1.2

JAMAICA'S ECOMMERCE STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS

| Strengths | Weaknesses |
|---|--|
| <ul style="list-style-type: none"> • There is an existing (but limited) ecommerce presence • People are interested in Jamaica its people and culture • Advanced telecommunications infrastructure • Increasing competition in telecommunications • Increasing training opportunities • Increasing creativity in software development and web services with increasing prospect for value added exports • Jamaicans speak English, the language of IT and ecommerce • Proximity to the largest and most advanced ICT and ecommerce market • Jamaicans have close links abroad which may be inclined to preferentially purchase from Jamaica • Government's commitment to ICT including a national IT strategic plan and coordinating organisation. • Increasing cooperation in Caribbean IT initiatives | <ul style="list-style-type: none"> • Shortage of entrepreneurs • Shortage of capital, especially venture capital • Low level of domestic demand for ecommerce/Internet services • Low level of participation in information economy/large digital divide • Poor community access to affordable internet and computers • High cost of broadband Internet access restricts ecommerce exports • Restricted access to electronic payments and banking system • IT/ecommerce skills shortage • Poor order fulfilment (eg, customs barriers, etc) • Large numbers of small firms may face hurdles to use of ecommerce • Government institutions and service delivery not IT ready • Lack of manufacturing base and production of value added goods and services • Small domestic market |
| Opportunities | Threats |
| <ul style="list-style-type: none"> • New markets may be opened up through ecommerce • New access to old markets • Efficiencies for Jamaican industry • Raised productivity for the economy in general • Increased competitiveness and improved trade • Increased contestability and lower prices for consumers • Better links across the whole community • Potential to spread jobs into rural regions • New services and improved convenience for rural communities better able to communicate | <ul style="list-style-type: none"> • Problems from increased globalisation • Ecommerce leads to unsustainable import surge • Ecommerce hollows out Jamaican industry • Brain drain depletes entrepreneurs and IT skills • Ecommerce raises competition and reduces profits • Digital divide deepens inequality • Structural change causes social dislocation • Loss of competitiveness if the majority of Jamaican businesses do not adopt new technologies while the rest of the world does |

Source: The Allen Consulting Group and Allied Research Associates 2002

The observations summarised in Table 1.2 suggest that ecommerce is both an 'offensive' and a 'defensive' issue. That is, whether or not Jamaica embraces ecommerce, ecommerce will increasingly be relied upon by overseas customers and businesses, to the exclusion of countries and businesses that do not have ecommerce capabilities. While embracing ecommerce may be seen as detrimental to Jamaica's export position (ie, consumers and businesses may bypass physical barriers and imports may increase) if ecommerce is not embraced then there will likely be a reduction in exports because consumers and businesses will deal with countries other than Jamaica.

Unless the threats and opportunities are addressed there is a danger that ecommerce will hollow out Jamaican industry, shifting higher value knowledge based activities offshore, leaving only a shell of lower value activities in Jamaica. Jamaica would still probably benefit from the development of ecommerce in this scenario, but it would be by less than its full potential given adoption of an effective strategy to develop domestic capabilities.

FEEDBACK SOUGHT

Has this chapter identified the major challenges and opportunities facing ecommerce in Jamaica?

B

Part B

Jamaica's Ecommerce Foundations

Chapter Two

The Strategic Framework

A blueprint is about setting out a vision for what the future could be like and what is needed to get there. This chapter outlines the key elements that form the foundations for the blueprint.

2.1 The Blueprint's Goal

Ecommerce is a means to an end. That is, it is a tool to facilitate the transformation of service delivery and the provision of greater opportunities for Jamaican businesses and consumers. To this end:

The goal of Jamaica's ecommerce blueprint should be to maximise opportunities to raise Jamaican competitiveness and wellbeing from the widespread use of ecommerce.

FEEDBACK SOUGHT

Is this an appropriate goal for this blueprint?

2.2 Principles

Systematic reform requires the clear exposition of a set of principles that can guide the bureaucracy, legislators and industry alike. Indeed, if well defined, such principles are likely to have a greater longer-term impact than any specific strategies of actions identified in this report.

There are a series of principles (some of which, at times, may be in conflict) that should guide the development and application of Jamaican ecommerce policy:

- all Jamaicans should be provided the opportunity to access the information economy and ecommerce at sufficient bandwidth and affordable cost;
- all Jamaicans need to be equipped with the skills and knowledge to harness the information economy's benefits for employment and living standards;
- the private sector must lead ecommerce uptake — choices about new technology and the exploitation of opportunities must be led by the private sector. The development of electronic commerce will be market-driven, and led by individuals and business innovators;
- government should be a model user, supplier and purchaser of electronic commerce services — this will provide direction, education and encouragement to business and consumers;
- legal and regulatory frameworks should be implemented to ensure that ecommerce is safe, secure, certain and open. This involves a number of elements:
 - technological neutrality — approaches taken should, wherever possible, be technology neutral. The rationale for this principle is that where technology specific legislation is favoured there is a tendency for either: costs to be imposed upon the development and uptake of more efficient technologies (eg, requirements that certain

bank documents be ‘in writing’ appears to have hindered both banking by fax, phone and the Internet); or the market will seek to innovate around the technology specific requirements (ie, the regulatory response is likely to be inadequate as it only covers a particular technology when in fact it should have possibly covered every technological option);

- transparency — legal and regulatory frameworks should provide for a predictable, simple, and consistent legal environment for ecommerce. Where the Government of Jamaica intervenes it will do so in a transparent way; and
- international consistency — because electronic commerce crosses national boundaries, where ever possible, preferred legal and regulatory approaches should be consistent with those evolving in a wide range of international *fora*.

These principles should be referred to when the Government of Jamaica seeks to formulate any policy that may impact (directly or indirectly) on the development and uptake of ecommerce.

2.3 Strategic Priorities

Following consultation with a range of stakeholders, eight priority areas have been identified for action. It is suggested that Jamaica direct its efforts to:

1. progress wider use and familiarity of computers and the Internet;
2. invest in appropriate human capital;
3. combat impediments to entrepreneurial development;
4. advance affordable access to world class infrastructure necessary to support use of the Internet and ecommerce in Jamaica;
5. build business and consumer confidence in ecommerce through appropriate legal frameworks;
6. ensure that the regulatory framework is appropriate for further development of ecommerce in Jamaica;
7. the Government of Jamaica should be a model user of ecommerce in implementing its e-government programme; and
8. remove or ameliorate non-Internet barriers to ecommerce (such as difficulties with order fulfilment).

Means of advancing the first seven of these priorities is discussed in the next chapter.⁸ In Part C of this report these generic issues are extended to develop and enhance the use of ecommerce in four key industry sectors including:

- the IT sector;
- banking and finance;

⁸ The eighth priority is not explicitly addressed in this report as it falls outside the study’s terms of reference. Similarly to traditional commerce, ecommerce relies upon efficient and reliable logistical arrangements and supply chains to be competitive. Some stakeholders observed that challenges to speedy and reliable transport around the island, and other logistical factors had been identified as a barrier to business and export. This appeared to encourage some businesses trading in Jamaican products to warehouse and ship from locations abroad. Meanwhile, improvements in the postal service and other parcel postage arrangements inside Jamaica were making it easier to import goods purchased by Jamaican customers of foreign e-commerce businesses.

- music and entertainment; and
- tourism.

FEEDBACK SOUGHT

Has this chapter correctly identified the major principles and priorities for ecommerce in Jamaica?

Chapter Three

Enhancing Jamaica's Ecommerce Environment

This section, building on the analysis outlined in Chapter Two:

- outlines barriers to the development of ecommerce in Jamaica; and
- suggests actions to address the identified barriers.

3.1 Use and Familiarity of Computers and the Internet

A central aspect of e-readiness is the widespread use of computers and the Internet. Evidence presented earlier shows that most other countries did not generate a presence on the Internet (ie, have websites about business opportunities or government services, etc) until after some eight to ten percent of their population has access to the Internet. Jamaica is some way short of that point at this time (measured with ITU definitions).

The Government of Jamaica, in partnership with business, is striving to raise access to PCs and the Internet. Current approaches include:

- introduction of PCs into Jamaica's schools — over two thirds of all schools are now equipped with computers, although access by all students is still limited. The Government of Jamaica is examining the feasibility of utilizing existing computer labs as access points for the public;
- the Government of Jamaica is also committed to programs to raise public awareness about the importance of ICT and the benefits from using it in business and other walks of life;
- Grace Kennedy in Partnership with Western Union has installed computer kiosks with Internet access in all the parish libraries;
- C&WJ have agreed to establish a number of Internet Access Points across the island. Some post offices are being equipped with Internet Kiosks with equipment provided by C&WJ;
- the Government of Jamaica has announced that it will install computers in public places to provide access to e-mail and the Internet. Community Access Points (CAP) are being provided by the Social Development Commission; and
- the Government of Jamaica has also removed all duties and sales taxes on computers and peripherals, making their acquisition by ordinary people (and business) more affordable.

These measures, and others like them, are vital in accelerating Jamaican societies progress up the social learning curve about PCs and the Internet. They are of central importance in ameliorating the threat of the digital divide — a potential schism between those in the community with and without access to knowledge, markets and wealth.

Action *The Government of Jamaica and business should continue with its current range of measures designed to promote widespread access to computers and the Internet to all sections of Jamaican society.*

3.2 Human Capital

In the emerging knowledge economy, human capital is becoming a central source of competitiveness.

A key area of human capital development that requires attention in Jamaica (and elsewhere) is in relation to IT skills. The Government of Jamaica has already set about putting resources in place to raise volume of IT skills training programs — see Box 3.1.

Box 3.1

HUMAN CAPITAL DEVELOPMENT ELEMENTS OF THE INTEC PROJECT

The Information Technology (INTEC) Project was initiated in April 2000, in support of the National Strategic Plan for Information Technology. The plan puts information and communication technology (ICT) at the centre of Jamaica's economic development, as a dynamic industry and in supporting the development of other sectors of the economy.

The INTEC Project is a three-year Project, which is intended to establish the framework for the knowledge-based society within the plan for long-term economic development.

Three basic objectives are the drivers for the project:

- the creation of 40,000 jobs in the short term;
- the development of a knowledge based society through life long learning, the training and retraining of our human resource, and access to technology; and
- the development of a vibrant local information technology industry.

Human Resource Development to provide a pool of workers able to support the establishment of a range of ICT technologies is one of five key subprograms. The development of the human resources in respect of job creation is being managed as follows:

- training of students in existing institutions;
- retraining of existing work force;
- scholarship support for talented students;
- development of an appropriate IT curriculum to inculcate the IT culture from the Primary to the Post secondary levels in support of the new objectives;
- training of trainers to deliver the high end programming curriculum; and
- informal training at the level of the community, including the Physically Challenged and inmates of the Correctional Institutions

Several private and public sector agencies support the objective to provide training at all levels in the ICT sector. HEART NTA coordinates the creation of the human resource needed to facilitate the employment opportunities. They are supported by other private sector agencies such as Dynamic Dimensions Inc., (DDI), Work Force Development Consortium and others.

Over 10,000 persons will receive training in various disciplines such as Word Processing, Spread-sheet analysis, computer programming (using the CIT curriculum), medical transcription, data processing (MOUS certification), CXC Information Technology and computer aided design (CAD). The Caribbean Institute of Technology (CIT) curriculum, is to be replicated in Community Colleges, Teacher Training Colleges and Private Institutions across Jamaica.

In addition to training at the high end HEART NTA has provided training in Industry Based IT (Data Entry), Computer Maintenance, Programming and Web Based Design, Customer Service Applications, Advance Word and Excel. Some two thousand four hundred people have received such training to date. Some three thousand six hundred trainees are presently being trained at this level.

Source: Ministry of Industry, Commerce and Technology 2002a.

There is little that is new or innovative in advocating investment in human capital, but it is unavoidable. As a prominent US expert said recently at a conference in Jamaica about preparation for the knowledge economy, key roles for government are TRAINING, TRAINING and TRAINING.⁹

Action *The Government of Jamaica and business should continue to place emphasis upon facilitating the acquisition of IT skills by a larger number of Jamaicans.*

Lessons from overseas show that it is not necessarily sufficient, or efficient, to expand every existing educational program. In some countries courses are being expanded while graduates are sitting idle and linger in unemployment queues. In some cases, jobs for specific areas remain unfilled while more graduates with inappropriate skills enter the market. These quandaries have become particularly pronounced as the ICT industry has shown itself to be vulnerable to cyclical downturns.

The OECD proposes a framework for thinking about appropriate government actions based on experience of member countries. The OECD framework is summarised in Table 3.1.

⁹ Garrison 2000, 'The Knowledge Economy: A New Context for Development', paper presented to Jamaica in the 21st Century, Kingston, November 14-15.

Table 3.1

ICT SKILLS: ISSUES AND ACTIONS

| | Skills formation (which skills?) | Skills acquisition/renewal (when and where) | Main issues | Areas for Government Action |
|-------------------------|---|---|---|---|
| Professional ICT Skills | Skills required to develop, use or service ICT professionally | Post-secondary education, IT vendor certification | <ul style="list-style-type: none"> • Balance specialists ICT skills with other more generic skills • High mobility • Recognise non-formal qualifications | <ul style="list-style-type: none"> • Improve attractiveness of ICT careers • Assist in providing labour market information • Examine options for using foreign labour |
| Applied ICT skills | Ability to use ICT in non-ICT jobs | Post-compulsory education, workplace training | <ul style="list-style-type: none"> • Importance of integrating ICT into a sector/profession | <ul style="list-style-type: none"> • Help identify emerging ICT skill requirements for non-ICT jobs • Provide incentives for firms to train workers |
| Basic ICT skills | Strong life learning skills: fluency to use ICT for learning, working, recreation | Learning context, schools (children), training (adults), [at work, formal courses, informal exposure] | <ul style="list-style-type: none"> • Develop common standards • Build core ICT competencies in curricula • Enhance teacher skills | <ul style="list-style-type: none"> • Promote ICT skills as important “generic” skills for life long learning • facilitate roll out of ICT in schools • promote ICT skills among teachers |

Source: Organisation for Economic Cooperation and Development 2002, p. 174

Achieving a better match of ICT skills supply and demand requires information. Without this resources will be wasted. The consulting team were unable to identify an existing information source in Jamaica about this matter. Original data may have to be collected relating to:

- a survey of industry demand for ICT skills — it is important that this collect information from industry in general not just the ICT sector; and
- an analysis or survey of the current enrolment and completion rates of public and private education and training suppliers.

Often the key to progress is in bringing together the various parties in the skills development market (ie, buyers and sellers of skills). Other countries

have found that an inexpensive way to do this is to establish an online forum — an online skills exchange.¹⁰

Action *The Government of Jamaica should evaluate the balance of supply and demand in ICT skills. This may involve original data collection. This may be an appropriate Task for CITO with the support of the Education Ministry and business.*

3.3 Developing a More Entrepreneurial Culture

Entrepreneurship is in short supply everywhere. This is in part why success is well rewarded. Some stakeholders reflected that Jamaica faced significant challenges in this regard:

- it is claimed that the education system places greater emphasis on preparing bright people for the professions, a career in large corporations, or in government, rather than in starting and growing innovative new businesses;
- capital for ecommerce ventures is limited. Banks are the major source of finance for working capital for domestic firms in Jamaica but, reflecting current macro-economic policy settings and the lingering balance sheet repair difficulties facing the Jamaican banking sector, access to capital is tight and funds are expensive. While, of the Caribbean countries, “Only in Jamaica is there a small market for short-term commercial paper issued by large corporate entities”,¹¹ venture capital is said to be almost non-existent at present. There are apparently limited opportunities for incubation of new businesses where people with new ideas can learn by doing in association with others; and
- there are problems with partnering. Many stakeholders reflect that partnering is a powerful means of accelerating business development, especially in ecommerce. This has not been lost on Jamaican business interests overseas, with many of the more vigorous online commercial activities about Jamaica that are already available apparently involving partnership arrangements in key aspects of the business. It was reported that Jamaican businesses at home, especially small and medium sized businesses, have been reluctant to use partnering or strategic alliances in to accelerate development of competitive capacity in ecommerce.

This situation is not conducive to development of entrepreneurial ecommerce ventures. This is not to say that Jamaicans are not entrepreneurial. Some evidence provided to the project team suggests that the contrary is the case. There are already many Jamaican entrepreneurs operating dynamic businesses online. A challenge is that many have left Jamaica to do it.

3.3.1 Venture Capital And Ecommerce

Access to capital is a key constraint to growth in the Jamaican economy at present. Obtaining capital for start up businesses built around an ecommerce strategy is particularly difficult, especially after the failure of many ‘dot coms’ around the globe.

¹⁰ See for example the skills exchange which operates in Australia available at <http://www.ITskillshub.com.au>.

¹¹ Worrell, Cherebin and Polius-Mounsey 2001, *Financial System Soundness in the Caribbean: An Initial Assessment*, International Monetary Fund Working Paper WP/01/123, p. 6.

Macroeconomic issues also raise significant challenges to investment. Price stability, exchange rate stability, rebuilding the banking sector after crisis and management of Jamaica's significant debt are major concerns.

The Government of Jamaica has also tried various means of creating enhanced access to capital for the ICT sector and ecommerce ventures. Most recently the Government of Jamaica established an Information Technology Loan Fund and proposes the creation of a Venture Capital Fund.

The Loan Fund has apparently encountered some of the usual difficulties to be expected in extending public sector money to risky business enterprises.¹²

The Venture Capital Fund is to build on the resources of the existing Technology Development Fund, but will be managed with the flexibility for managing development funds as obtains in other countries. The aim will be to build on the intellectual property of Jamaicans in developing a viable industry.

This was intended to:

- seed the development of an ICT industry in order to ensure sustainability, and
- encourage the establishment of a venture capital industry in Jamaica, in order to meet the broader economic objective of improving the climate for entrepreneurship.

The viability of the fund was predicated on the financial participation of the private sector, and the mobilising of private sector capital for the purpose of equity and other risk-taking investments in new and early stage companies.

To date recommendations have been received from consultants, and discussions are being held with potential financial partners of the private sector.¹³

3.3.2 Stronger Private Sector Involvement

A variation to loan and venture capital schemes is proposed. This variation starts with the premise that financing ecommerce development is a risky business best left to business. Nevertheless, there is a national interest in seeing accelerated development of the activity and reasons to expect that the market if left to itself will under invest in it. The challenge is to find a way of providing public sector encouragement without providing all of the money and absorbing all of the risk, or even a large part of it. A further challenge is to build the capacity of the private sector to fill the venture capital role, rather than displacing it with cumbersome government bodies.

It is suggested that the Government of Jamaica provide for the establishment of Pooled Ecommerce Funds (PEFs). PEFs would be private companies, established under legislation, that raise capital from investors

¹² See Ministry of Industry, Commerce and Technology 2002a, *Report on the INTEC Project and the Circumstances Under Which the National Investment Bank of Jamaica Placed Netserve in Receivership*, Kingston.

¹³ Ministry of Industry, Commerce and Technology 2002b, 'Performance of the Information Technology Research and Development (INTEC) Project for 2000/2001 and Focus for Fiscal Year 2001/2002' Kingston.

(no investor would be able to hold greater than say 30 percent of the PEF's shares) and use it to invest in ecommerce ventures. In return PEFs and their shareholders are taxed at a lower rate on income generated through PEF activities. The legislation would place constraints on what is and is not a legitimate ecommerce PEF and establish a regulatory body to ensure that the rules were followed. Examples of such restraints could include:

- PEFs would be required to invest:
 - in Jamaican firms that will establish or significantly expand an ecommerce related business;
 - in newly issued ordinary shares or other kinds of newly issued shares;
 - in at least ten percent of the investee business' paid up capital;
 - a minimum percentage of its capital within five years;
- PEFs would be prohibited from investing:
 - in other PEFs;
 - in retail sale or property developments;
 - in companies whose total assets exceed a certain value;
 - more than, say, 30 percent of its capital in any one business.

This scheme provides:

- additional capital for ecommerce ventures at low cost to the Government of Jamaica — there is only a cost to the Government of Jamaica if the investment actually is profitable (ie, if the investments are unsuccessful then there is no cost); and
- the private sector with a framework for partnering:
 - PEFs become part owners of the firms they invest in. Before approaching a PEF it is therefore likely that firms will seriously consider what they want from a partner with whom they will be sharing ownership. The PEFs will need to establish a record of bringing value to the table in addition to their money; and
 - in order to receive money from a PEF it will be necessary to convince the investors of the potential commercial value of what they are doing (or planning to do). This is likely to improve the quality of ecommerce business development.

Broadly similar arrangements applied elsewhere have stimulated significant investment in risky ventures at modest cost to government — see Box 3.2.

***Action** The Government of Jamaica should seek to foster greater private finance in ecommerce ventures by introducing Pooled Ecommerce Funds.*

Box 3.2

EXPANDING PRIVATE VENTURE CAPITAL FUNDS — INSIGHT FROM AUSTRALIA

A shortage of capital for investment innovative business has been a constraint impeding growth in Australia's technology sector for some time. Governments had attempted to address this constraint with grant programs, tax concessions and through the establishment of public sector venture capital funds which provided concessional and commercial debt and equity. These activities met with mixed success, but were expensive for government. The main message was that public sector agencies were not well suited to identifying commercial opportunities.

The national level of Government in Australia, The Commonwealth Government of Australia developed a new system that sought to mobilise private sector funds and develop the capacity of the private sector to invest in risky, innovative business opportunities. The Pooled Development Funds Program was introduced in 1992 to develop the market for equity capital for small to medium sized enterprises (SMEs). Under the *Pooled Development Funds Act 1992* a private company is established, known as a PDF, that raises capital from investors for investment into SMEs. To date the Program has been administered by both Coalition and ALP Governments and appears to have bipartisan support.

Establishing a PDF

To become a PDF companies are required to register with the PDF Board and provide the Board with annual returns on the status of their investments.

Concessional Tax Treatment

To provide incentive for investors, PDFs and their shareholders qualify for income tax concessions on income generated from the patient equity investments in SMEs that are available under the program. Tax Concessions include:

- PDFs are taxed at 15 percent on the SME component of their investment income;
- Unfranked PDF dividends are tax exempt in the hands of investors (unless the investor elects to be taxed whereby they can use the imputation credits attached to the franked dividend to offset other tax obligations); and
- The capital gains on realisation of shares held in a PDF are tax exempt.

Investment Parameters

Investments made by PDFs must:

- Be in SMEs with total assets of less than \$50 million whose primary activities are not retail operations or property development;
- Not be in another PDF;
- Be for the purpose of establishing an eligible business either alone or with other parties; or to increase substantially the production capacity or the supply capacity for an established eligible business and to substantially expand existing markets or to develop new markets for goods and services of established eligible businesses; and
- Normally investment by the PDF must be at least ten percent of the total capital of the investee's business although the PDF Board is able to approve investments of lower proportions. The investment must be in newly issued ordinary shares or other newly issued or pre-owned shares as approved by the Board. A PDF is not permitted to invest more than thirty percent of its capital in any one-investee company without prior approval of the Board.

The Board

The Board is made up of six members who are predominantly drawn from the private sector. The Board's function and powers as set out in the PDF Act include:

- Consideration of applications for registration as PDFs;
- Registration of PDFs;
- Examination of requests from PDFs to vary investment plans;
- Exercising discretion for PDFs under various sections of the Act;
- Monitoring compliance of PDFs with the legislation;
- Collection and examination of annual returns from PDFs;
- Revocation of PDF registration; and
- Provision of advice to the Minister on the operation of the PDF Program.

State of Play

Over 120 PDFs have registered up to June 2002. They have raised capital of about A\$750 million capital. Of this over \$350 million has been invested in 350 SMEs.

The Treasury forecasts a 'tax expenditure' (ie, revenue loss) from the PDF program of less than A\$1 million per annum over the next four years.

Source: Pooled Development Funds Registration Board 2000, *Annual Report 1999-2000*, AusInfo, Canberra.

3.3.3 Incubating Ecommerce Growth

Size matters when it comes to ecommerce. So does skill and experience in running and growing a viable business. Even experienced businesses have to go through something of a transformation as they adapt their business to the opportunities and pressures that are associated with the online environment. Making a mistake, even in fairly basic matters such as the office establishment can be fatal for a new or transforming business.

It is notable that the wave of dot com companies that recently failed had ample capital and considerable IT skills. What they fundamentally lacked was the skills to put their strengths together within a sound business framework. As Michael Porter points out, sound business skills are still the key factor that will sort success from failure.

There is much anecdotal evidence to suggest that the small and medium sized businesses that make up the majority of business in Jamaica face many of the same problems as their counterparts in other countries. Running a business is challenging enough without having to think about reengineering it with new technology. In addition, while many may view that accessing the Internet would be nice, they may not see how they can make a business around it. Most importantly, there are significant issues such as knowing how to do it and perceptions about the cost.

While the traditional focus of encouraging innovation in business has been upon new businesses or start ups, it is clear that rapid diffusion of this beneficial technology hinges on getting existing businesses to change.

Business incubation could be a powerful means of addressing these challenges. Incubators already exist in Jamaica and have met with some success — see Box 3.3.

In order to facilitate business redevelopment involving greater use of ecommerce and Internet business strategies, it would be beneficial if there was a wider network of formal technology innovation centres modelled on the existing TIC that catered to:

- businesses in transformation as well as start ups
- businesses in other major centres; and
- businesses in targeted industries (including say tourism or music).

It would also be beneficial if the Jamaican Business Development centre capacity to give advice about ecommerce and online technologies was enhanced and that this also be available for businesses in other major centres and in priority industries.

Box 3.3

BUSINESS DEVELOPMENT AND INCUBATION IN JAMAICA**The Technology Innovation Centre (TIC)**

The TIC is a business Incubator serving new technology-based businesses. Essentially the TIC provides:

- work space through flexible office arrangements;
- shared office facilities such as receptionist, conference rooms, telephone system, fax and computer, copier;
- advisory services;
- skills development in business management, marketing and other disciplines;
- speed in securing the needed office facilities as well as facilitating registration, the payment of taxes, and meeting other regulations;
- access to seed money, through the incubator's reputation and better business plans, and often through an internal revolving fund that provides equity or small loans on concessional terms; and
- the synergy of sharing and networking among tenants and with the local community.

A key aspect of the TIC is that resident businesses have immediate access to high bandwidth Internet facilities at a cost that is a fraction of what they would have to pay in the day to day Jamaican market. Most of not all of the companies in the TIC have been born with a significant Internet umbilical cord, even if not all are actually based on ecommerce applications from commencement.

The TIC is part of the University of Technology, Jamaica and has established a culture of bringing together learning and business. It has been operating for many years and expanded to its current scale cautiously. It is located in Kingston, although it has affiliations with a few other educational institutions on the Island (and with international bodies).

The Jamaican Business Development Centre

The Jamaican Business Development Centre promotes the creation and sustainable development of the micro, small and medium businesses in Jamaica. It delivers its services through a service mix of:

- technical and business management advice;
- marketing advice;
- production management advice;
- technical advice;
- finance;
- grants and cost sharing schemes;
- training;
- JDDC Seminars Series;
- tourism;
- product development and prototyping;
- sales promotion;
- public relations; and
- business registration.

No charge is made for the help and information given by the Centre's business advisor. Should technical or professional advice or training be required, a modest fee is charged.

Source: www.ticjamaica.com and www.jbdc.net.

Action *The Government of Jamaica should develop a broader network of support to incubate companies making the transition to ecommerce and online business models. This should build upon models that are already proving to be successful in Jamaica, drawing linkages between business, leading educational institutions and Government support.*

3.3.4 Emerging Business Support

Having supported businesses through the transition to development of an online business model and entry into potentially global markets and competition, they still need support.

This may involve developing programs for road shows/marketing missions; trade fairs and conferences at a lower level than previously. There may also been a need to undertake more promotional activity in relation to securing exposure and marketing space for Jamaican business on global ecommerce platforms.

Action *The Government of Jamaica should develop means of encouraging the development of emerging ecommerce enabled businesses in the crucial post incubation period. JAMPRO should coordinate actions with incubators to showcase emerging businesses to international trading partners and potential investors, as well as in emerging Internet marketplaces.*

3.4 Affordable Access to Telecommunication and the Internet

A prerequisite for electronic commerce in Jamaica is an appropriate and accessible telecommunication and information infrastructure.

The World Bank has clearly identified that access to telecommunications is a key developmental issue for Jamaica:

“More in some parts of the world than in others, poor people talk about the importance of telephones to increase their connectivity to information, such as the market prices for their goods and other knowledge about the outside world. In Millbank, Jamaica the need for telephones was mentioned by several discussion groups. The researchers write:

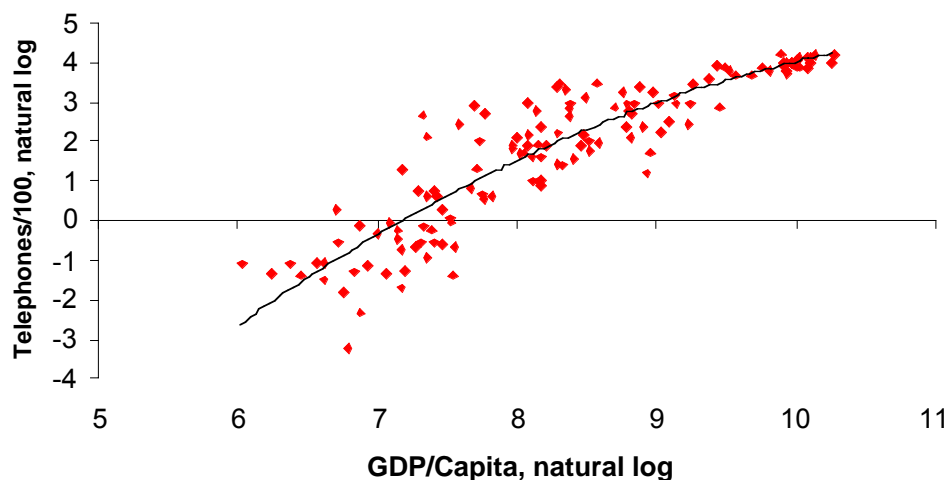
The community feels very strongly that the market exists for their enterprise and the road and telephone would lead to the creation of an economically viable industry. However, they ranked telephones as more important as they believe these will provide income earning opportunities and a faster response time to health or other emergencies that may arise in the community.... The lack of telephones was a recurring theme, possibly derived from a sensed of alienation through the remote location. Aside from the telephone, the young men and women have a craving for information technology, and are well aware of the Internet, seeing enterprise opportunities for marketing their products in the area.

In other discussion groups in Millbank, women equate the telephone to the local bridge across the river. In one group, a woman declares “this is the year 2000, the age of technology; it is full time that we get a telephone.” In Little Bay, Jamaica lack of telephones and post offices is a problem identified by all discussion groups.”¹⁴

Indeed, the anecdotal importance of telecommunications is supported by statistical evidence — see Figure 3.1.

¹⁴ Narayan, Chambers, Shah and Peteschp 2000, *Crying Out for Change: Voices of the Poor*, Oxford University Press, New York, p. 239.

Figure 3.1

GDP PER CAPITA AGAINST TELEPHONES PER CAPITA (LOG)

Source: World Bank, as quoted in Grace et al. 2001, p. 16

While access to telecommunications services is necessary for communication using simple voice telephony, obviously, it is obviously important for the uptake of ecommerce.

Apart from basic fixed telephony, other telecom infrastructures that are essential for electronic commerce include:

- wireless services;
- broadband services (including ADSL, IDSN, cable TV and satellite) — these allow for fast access to Internet operations; and
- international interconnections — these are constitutive for Jamaica's overall capacity to access the Internet.

It is not enough to say that such technologies exist in Jamaica. They need to be widely available and at affordable prices. Jamaica's telecommunications services are both constrained in their relative availability, expensive and relatively unreliable.¹⁵

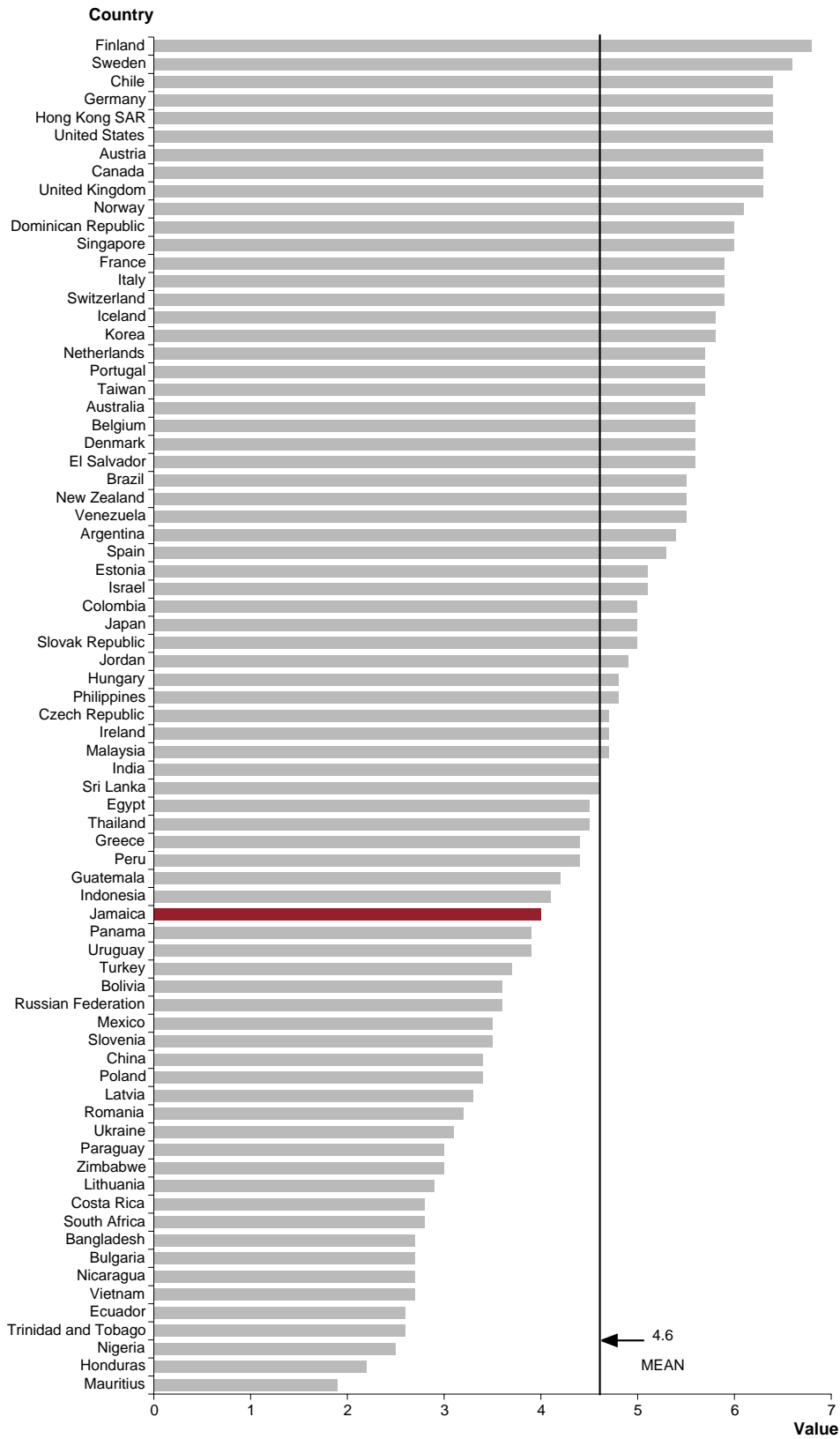
Competition is a key to overcoming these problems. While Jamaica's telecommunications regime is seen as relatively competitive in comparison to its peers (Figure 3.2), there is scope for improvement in order to advance the uptake of ecommerce.

¹⁵ See Kirkman, Cornelius, Sachs and Schwab 2002, *The Global Information Technology Report 2001–2002: Readiness for the Networked World*, Oxford University Press, New York.

Figure 3.2

PERCEPTION OF EFFECT OF TELECOMMUNICATIONS COMPETITION ON QUALITY AND PRICE

Is there sufficient competition in the telecommunications sector in your country to ensure high quality, infrequent interruptions, and low prices? (1=no, 7=yes, equal to the best in the world)



Source: Kirkman et al. 2002, p. 350

3.4.1 Fixed Telephony

There has been a steady increase in the number of fixed telephone lines in Jamaica (see Table 3.1). Indeed, the Jamaican telecommunications privatisation and liberalisation process provided that within one year of the commencement of phase one of reform (ie, 2000), C&WJ would install a minimum of 100,000 fixed lines. It deployed Wireless Local Loop (WLL) technology as part of its strategy to provide basic telephone service at a much faster rate, particularly in rural areas.

Table 3.1

FIXED LINES IN JAMAICA (1995-2000)

| Year | Fixed Lines | Teledensity |
|------|-------------|-------------|
| 1995 | 291,800 | 11.7% |
| 1996 | 335,00 | 14.2% |
| 1997 | 415,610 | 16.4% |
| 1998 | 419,400 | 18.7% |
| 1999 | 500,000 | 19.0% |
| 2000 | 655,000 | 19.6% |

Source: BuddeComm 2002, p. 5

While growth in fixed telephone lines has continued, as with most other countries, telecom companies invest predominantly in more profitable urban areas; thus other less affluent segments of the population are increasingly left behind in the race to connectivity.

The dilemma is whether to continue to push for the installation of services to all (ie, a universal service obligation) or to seek to bypass reliance on fixed lines and instead turn to greater reliance on mobile services.

The OUR has previously flagged the imposition of new 'quality of service' standards to be applied to C&WJ.¹⁶ To date this has not been acted upon, but should be to increase the reliability of essential telecommunications services.

Action *Stringent 'quality of service' obligations should be imposed upon C&WJ.*

The project team also notes its support for the recommendations recently advanced by the Jamaica Telecommunications Advisory Council with respect to universal service obligations, scope for advancing telecommunications reform by renegotiating the 1999 agreement between the Government of Jamaica and C&WJ.¹⁷

Action *The general reformist thrust of the recent Jamaica Telecommunications Advisory Council's recommendations should be supported with respect to universal service obligations, scope for advancing telecommunications reform by renegotiating the 1999 agreement between the Government of Jamaica and C&WJ.*

¹⁶ Office of Utilities Regulation 2001, *Quality of Service Standards for Cable & Wireless Jamaica — A Consultative Document: Final Draft*, Office of Utilities Regulation, Kingston.

¹⁷ See Jamaica Telecommunications Advisory Council 2002, *Telecommunications Policy reform in Jamaica: Recommendations to the Minister for Industry, Commerce and Technology*, Kingston.

3.4.2 Wireless Telephony

Mobile ecommerce is seen as an area of rapid potential growth. Deregulation of wireless services in Jamaica has seen an explosion in their use (see Table 3.2) so that mobile connections exceed fixed connections, and hence there is some expectation that Jamaica can be at the forefront of mobile ecommerce.

Table 3.2

MOBILE SUBSCRIBERS (1999-2001)

| Year | Subscribers |
|------------------|-------------|
| 1999 | 160,000 |
| 2000 | 224,000 |
| 2001 (September) | 825,500 |

Source: BuddeComm 2002, p. 9

Given the far from universal access to fixed phone lines, wireless services offer the best long term point of access to ecommerce services. Indeed, mobile services may reduce the need for the uptake of credit cards. For example, it is noted that:

“Mobile dial-up payments substitute a mobile handset for the merchant’s point-of-sale (POS) terminal. The merchant takes the customer’s telephone number and telephones a payment request—comprising the telephone number and the amount of the transaction—into the payments platform. When the platform receives conformation through a call or a Short Message Service (SMS) communication to the customer, the sum is transferred to the merchant’s account. To access the server that records and processes transactions, the customer needs no debit or credit card (not always available in emerging markets), only a handset loaded with his or her security-identity-mobile (SIM) card. The merchant’s mobile handset plays the role of POS terminal, but far more cheaply than the real thing.”¹⁸

Action *The Government of Jamaica should seek to encourage the uptake of mobile dial-up payment services by the banking sector, telecommunications companies and business groups.*

For such technologies to be feasibly exploited a number of cost (and hence access) barriers need to be addressed.

The onus for encouraging the efficient and equitable expansion of mobile services falls largely on the regulators. It is important for the regulators to continue to create a competitive environment:

- consumer protection needs to be strong to ensure that consumers are basing their purchasing decisions upon the relevant facts;
- that licence fees are low and spectrum auctions are simple and transparent; and
- that interconnect charges are structured to facilitate productivity improvements.

¹⁸ Datta, Pasa and Schnitker 2001, 'Could Mobile Banking Go Global?' *McKinsey Quarterly*, no. 4, pp. 71-80 at 74.

Beyond these staples of good regulation, the Government of Jamaica can take steps to encourage the supply of mobile services to broader segments of the community (eg, regional communities, low income groups, etc). For example:

“One incentive of this kind is a universal-service obligation fund. Operators serving only commercially attractive segments would have to pay 1 to 3 percent of their revenues into such a fund, from which operators serving less attractive remote and low-income segments could draw compensation, thus ensuring universal mobile service.”¹⁹

Action *The Government of Jamaica should explore the potential for a universal service obligation fund for mobile telecommunications providers.*

A particular barrier to mobile ecommerce adoption is the unnecessary and inefficient duplication of handsets.²⁰ While pricing choice is a key feature of many competitive markets, in Jamaica this has resulted in wasteful duplication, with many people having two handsets; one for receiving calls and one for making calls. In countries with near universal take-up on mobile telephony it has been driven by pricing structures based of the calling party pays (CPP) principle. As a result, pricing would be simplified (making consumer choice easier) and inefficient handset duplication would be reduced by making mandatory the (CPP) pricing principle.

Action *The OUR and the Government of Jamaica should mandate that mobile providers abide by the calling party pays (CPP) principle.*

Further consideration should also be given to restraining tariffs by cutting interconnect fees (ie, the charges operators pay for using another operator’s wire network to complete calls).²¹

3.4.3 Broadband

With ecommerce transactions involving increasingly multimedia applications, high speed (as opposed to dial-up) access to the Internet becomes vital. Alternative broadband Internet access infrastructure to the basic dial-up system include technologies that use basic phone lines (ISDN or DSL), cable TV or satellite.

Actual and potential users of broadband Internet in Jamaica complain of the high absolute and relative costs.²² However, prices have fallen over the past year.²³ This suggests that C&WJ’s pricing has been excessive and there may be scope for tighter cost based price controls by the OUR.

In its e-government study Booz Allen Hamilton noted that:

¹⁹ Dhawan, Dorian, Gupta and Sunkara 2001, 'Connecting the Unconnected', *McKinsey Quarterly*, no. 4, pp. 61-70 at 63.

This additional expense may delay the broader adoption of new mobile technologies (eg, third generation mobile services).

²¹ Dhawan, Dorian, Gupta and Sunkara 2001, 'Connecting the Unconnected', *McKinsey Quarterly*, no. 4, pp. 61-70 at 63.

²² See Grant, France and Hsu 2002, *Towards an Internet-Based Education Model for Caribbean Countries*, p. 2.

²³ Booz Allen & Hamilton 2002b, *Jamaica Information and Communications Technology Project: E-Government Component — Consolidated Final Report*, Booz Allen & Hamilton, McLean (VA), p. 76.

“the current price regulation structure designates T1 lines for value pricing rather than cost based pricing despite a lack of competition. ... The new tariffs should be cost-based, with the regulator having received the appropriate documentation justifying the cost. The office of Utilities Regulation, OUR, will have to evaluate whether there is the required level of competition to allow leased lines to be accessed from the value pricing perspective. ... we would argue that C&WJ publish all cost associated with the use of their leased lines and enhance data services. To achieve this, the government will have to ensure that there are clearly outlined and enforceable regulations, which allow OUR to regulate all telecommunications operators. The regulation of leased lines and other enhanced services are critical because of the impact to the overall economic development in Jamaica.”²⁴

Price regulation of broadband and associated services is a particularly difficult regulatory area, with many critics of excessive price control in other jurisdictions.²⁵ However, the importance of broadband to Jamaican ecommerce suggests that it is necessary, at least as a transitional measure.

Action *At least as a transitional measure, OUR should be empowered and encouraged to consider regulating broadband lines and associated services on a cost basis.*

Further discussion of this issue is provided in the final Booz Allen Hamilton government report.²⁶

3.4.4 Voice Over IP

Technologically, C&WJ’s exclusivity was challenged by the possibility for consumers to bypass C&WJ’s international gateway by using Internet telephony.²⁷ This is a generic term for the conveyance of voice, fax and related services, partially or wholly over packet-switched IP-protocols across the Internet. Internet telephony may also include applications that integrate/embed the transmission of voice and fax with other media such as text and images.

Internet telephony has been a complex legal and political issue in Jamaica:

- the Ministry for Commerce and Technology (MCT) encouraged this competition by issuing five licenses to VSAT operators (under the *Radio and Telegraph Control Act 1973*);
- as C&WJ was unsuccessful in its challenge regarding access to the local network,²⁸ it challenged the legality of issuing VSAT licences. In response to this challenge the Attorney General acknowledged that the Government of Jamaica had acted unconstitutionally in granting the 1988 licences, and the action before the Supreme Court was subsequently abandoned by C&WJ; and
- in February 2002 the OUR issued a Cease and Desist Enforcement Notice to Web Communications Limited for providing Internet telephony services to the public without a licence issued under the *Telecommunications Act*.

²⁴ Ibid., pp. 76-7.

²⁵ See Brown *Regulating Internet Access: An Idea Whose Time Never Came*, viewed 17 July 2002, <http://www.adti.net/html_files/telecom/reginternetaccessppr_kbrown030600.html>.

²⁶ Booz Allen & Hamilton 2002b, *Jamaica Information and Communications Technology Project: E-Government Component — Consolidated Final Report*, Booz Allen & Hamilton, McLean (VA), pp. 79-85.

²⁷ The term Internet telephony can be used interchangeably with VoIP (Voice over Internet Protocol).

²⁸ *Infochannel Ltd. v Cable & Wireless Jamaica Ltd.* Suit E014/99.

The costs and benefits associated with Internet telephony are relatively stark:

“In presenting his report, the Secretary-General underlined the following points, which had emerged from the contributions of the membership:

- a) IP-based networks represent a significant new opportunity for the membership of the Union and are already an important part of the emerging new market environment, in terms of volume of traffic carried and level of investment committed.
- b) From a technical perspective, IP-based networks hold the promise of providing multimedia telecommunications services and new applications, merging voice and data. IP may well become the unifying platform for emerging converged networks.
- c) From an economic perspective, the use of IP-based networks promises to reduce prices to consumers, and the costs of market entry for operators, especially for long-distance and international calls.
- d) From a regulatory perspective, the development of IP Telephony is forcing a reassessment of existing telecommunications regulation, which may need to be reviewed in the light of the opportunities opened up, and the challenges posed, by this new technology.
- e) IP Telephony poses a dilemma for developing countries: on the one hand it offers cheaper prices and lower costs, but it may also undermine the pricing structure of the incumbent public telecommunication operator. The transition to IP-based networks also poses significant human resource development challenges.”²⁹

These are all pertinent observations with respect to voice over IP in Jamaica.

Government support of Internet telephony would likely provide a significant boost to the ISP sector, and to the ecommerce sector in general:

“While most developing country governments have been supportive of IP-based networks in general, and the Internet in particular, they have often taken a different view of IP Telephony. Consequently, ISPs in these countries may have been deprived of a potentially valuable revenue source, and this may slow Internet development. In some cases, ISPs have been requested to block access to specific websites, based in foreign countries, which offer free-of-charge IP Telephony calls. As more websites integrate voice applications, such bans will become more difficult to enforce and the result may be that application service providers and website developers in developing countries are less able to compete with those in countries where IP Telephony is liberalised.”³⁰

Support of Internet telephony would likely lead to quicker adoption of computers in homes and workplaces, and hence generally stimulate ecommerce in Jamaica (ie, addressing the barriers identified section 3.1).

The only beneficiary from restraining Internet telephony in Jamaica is C&WJ. This alone is not a legitimate reason for prohibiting voice over IP. Rather, regulation should aim to foster an effective competitive environment and that regulation may be appropriate:

- where there is market failure;

²⁹ International Telecommunications Union 2001a, 'Report by the Chairman', paper presented to World Telecommunication Policy Forum, 2001: IP Telephony, Geneva, 9 March, p. 2.

³⁰ International Telecommunications Union 2001b, 'Report of the Secretary-General on IP Telephony', paper presented to World Telecommunication Policy Forum, 2001: IP Telephony, Geneva, 9 March, p. 28.

- when public interests cannot be adequately met by industry (eg, universal access and service); or
- there may be a need to rebalance tariffs;

Given these observations, there should be a move to allow voice over IP services following a review by OUR, operating under the presumption of reform taking place, of whether, and to what degree, any of these three circumstances are relevant to Jamaica.

Action Legislation should be introduced to allow the adoption of Internet telephony.

3.4.5 Internet Service Providers

Another area of business that is crucial to Internet access is the ISP (Internet Service Provider) sector. There is a clear perception that ISP competition needs to be enhanced — Figure 3.3. As noted above, the sustainability of the ISP sector will be enhanced, and competition facilitated, if Internet telephony is made legal.

In many countries ISPs are businesses with no particular government rules limiting competition. However, the Jamaican regime restricts, at least notionally, market access through licensing. There are two types of ISP licences:

- standard ISP licences, of which 37 have been issued; and
- ISP licences for subscriber television providers, of which eight have been issued.³¹

While there are a total of 45 ISP licences have been issued it is clear that the market has been subject to a degree of gaming, and that the vast majority of licences were obtained because they were available at zero cost and it seemed a good idea to have one, even though there were no plans to actually use the licences. The result, is the impression of a highly competitive market with 45 or so participants, when in fact there is only a handful of active ISPs of a sustainable scale. The result may be anti-competitive as it sends the wrong signals to possible new entrants.

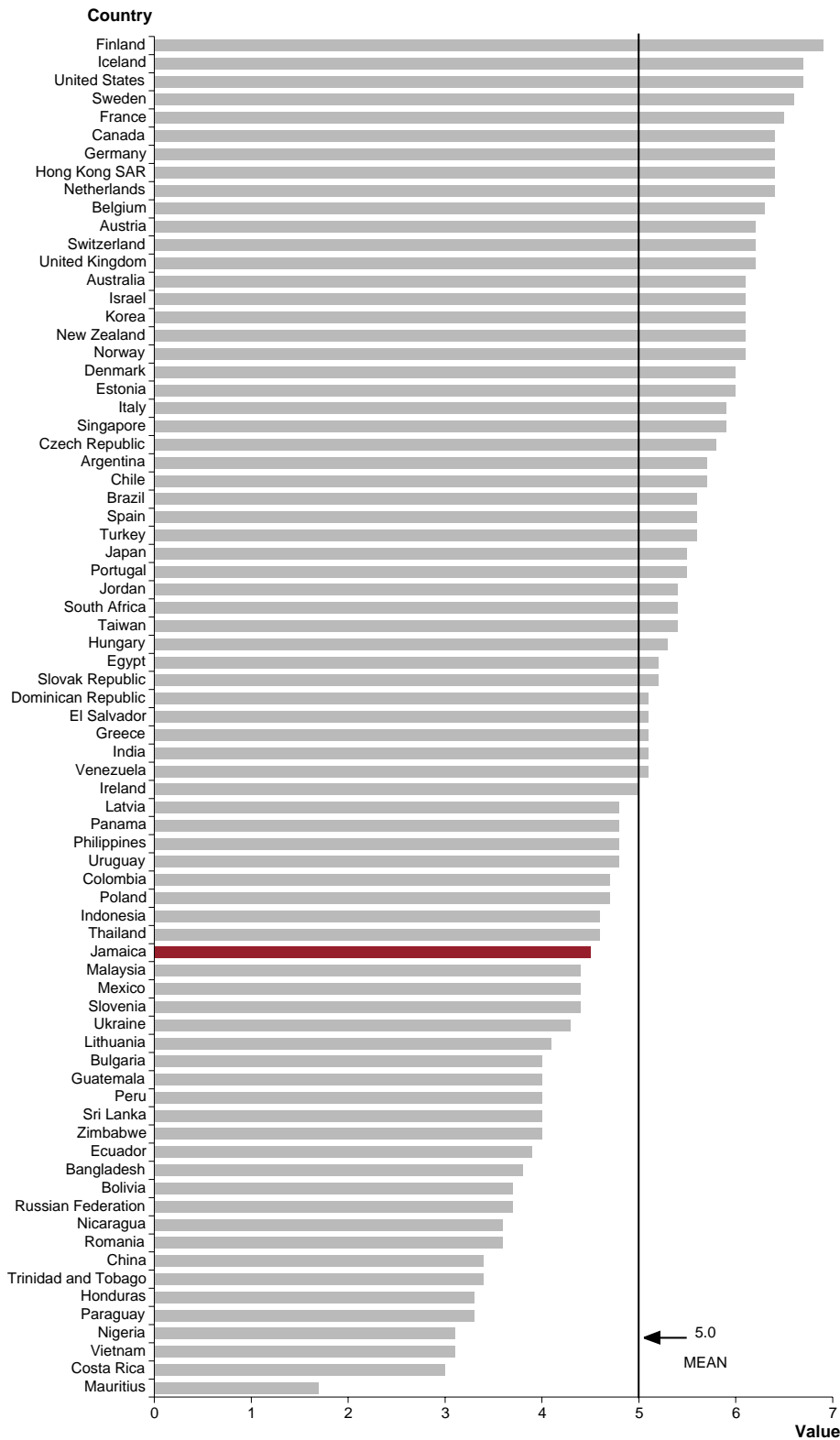
Action The Government of Jamaica should consider removing the need to hold a licence to operate as an ISP, or revoke ISP licences that are not being actively used for more than six months.

³¹ See Office of Utilities Regulation 2002, *Public Register of All Telecommunication Licence Holders*, viewed 17 July 2002, <<http://www.our.org.jm/telecomcurrent.shtml>>.

Figure 3.3

PERCEPTION OF EFFECT OF ISP COMPETITION ON QUALITY AND PRICE

Is there sufficient competition in the ISP sector in your country to ensure high quality, infrequent interruptions, and low prices? (1=no, 7=yes, equal to the best in the world)



Source: Kirkman et al. 2002, p. 351

3.5 Legal Frameworks

Significant work has been undertaken over the past year or so with respect to the legislative changes that need to be made to facilitate the development of ecommerce in Jamaica.³²

Stakeholders impressed upon the project team that there are significant issues to be addressed in Jamaica's legislative framework to support expansion of the country's ecommerce capabilities and competitiveness:

- *digital signatures and authentication* — stakeholders frequently cite a lack of confidence in verification of electronic communication and authentication as a barrier to greater involvement in ecommerce in Jamaica. Many other countries have introduced laws based on the United Nations Commission on International Trade Law (UNCITRAL) *Model Law on Electronic Commerce* to address such concerns;
- *Evidence Act* — one school of thought is that the current act is said to specifically require signed written evidence of transactions or contracts to be admissible as evidence in a Jamaican court and hence faxed or electronic signatures are not admissible.³³ Some stakeholders have argued that this view is overly cautious and incorrect. While such a divergence of opinions exists there is a case for legislative clarification;
- *Sale of Goods Act* — this may need to be updated to address the capabilities and potential difficulties posed by online technologies; and
- *privacy* — it is understood that Jamaica currently has no laws regarding the handling of individuals' private or sensitive information (except for background coverage through common law remedies). Global consumers are increasingly reluctant to deal with companies operating outside of legislative frameworks which give consumers rights to protect their privacy. Many other countries are providing specific laws in this area (notably, these are technology neutral and extend beyond online use of personal or sensitive information). Similar legislation should be adopted in Jamaica.

These issues are not overly contentious, and have already been addressed in a myriad of other countries, and hence should not be problematic for Jamaica to also address.³⁴ Indeed, JAMPRO has previously funded a research project in which Normal Manley Law School students identified which laws would need amendment to facilitate ecommerce.³⁵

Consideration was given as to whether there is value in having a specific legislative authority and framework for ecommerce (ie, an Act dedicated to ecommerce issues)? While this approach has a degree of elegance and reinforces that ecommerce is an important issue, it is not the preferred approach for a number of reasons:

- reliance on a single Act may delay implementation as debate may delay the passing of the whole Act when minor amendments to other legislation (even if passed through omnibus legislation) may be quicker to adopt; and

³² Booz Allen & Hamilton 2002a, *Jamaica Information and Communications Technology Project: E-Government Component Feasibility Study — Final Report*, Booz Allen & Hamilton, McLean (VA).

³³ Ibid., p. 9.

³⁴ See the discussion and recommendations in: Ibid; Booz Allen & Hamilton 2002b, *Jamaica Information and Communications Technology Project: E-Government Component — Consolidated Final Report*, Booz Allen & Hamilton, McLean (VA), pp. 86-99.

³⁵ This report was not made available to the project team.

- the legislative framework should promote technology neutral outcomes and so it would send the wrong signal to have a dedicated ecommerce law when it would be better to focus on having general laws that apply equally well to physical and electronic commerce.

Action Any legal uncertainty regarding ecommerce should be addressed by passing legislation, drawing upon best practice international model laws, to address matters such as: authentication; evidentiary requirements; privacy; digital signatures; and any related issues.

3.6 Regulatory Institutions

There are four major Jamaican bodies that currently have a role in regulating, to varying degrees, the ecommerce space:

- the Office of Utilities Regulation (OUR) — most aspects of telecommunications regulation were transferred to the OUR in 1997 as a consequence of the *Office of Utilities Regulation Act 1995*. The OUR, mirroring British ‘of-type’ regulatory agencies, assumed cross-sectoral responsibility for the economic regulation of the major Jamaican utilities;
- the Fair Trading Commission (FTC) — the FTC was established under the *Fair Competition Act 1993* as both a competition and consumer protection regulator;
- the Spectrum Management Authority (SMA) — the SMA has the responsibility for regulating the Radio Frequency Spectrum (which was previously done by the Post and Telecommunications Department); and
- the Broadcasting Commission (BC) — under the *Broadcasting and Radio Re-Diffusion Amendment Act 1986* the BC’s role is to monitor and regulate (ie, license) the electronic media, broadcast radio and television, as well as subscriber television.

The OUR and the FTC are the older of the four organisations and, in general, have been praised for their roles in facilitating competitive outcomes in a reform context,³⁶ and in the manner in which they work together:

“In Jamaica the principal competition law is the Fair Competition Act administered by the Fair Trading Commission. However by virtue of Government policy, competition issues in relation to telecommunications are determined by the OUR and not the FTC. The Government took the decision that it did not want two agencies within the same Ministry engaged in turf war and creating the possibility of uncertainty and double jeopardy for telecommunications licensees and thus decided that the OUR would be empowered to determine competition issues in telecommunications. Under the Act where after consultation with the FTC the OUR determines that a matter or any aspect thereof relating to the provision of telecommunications services is of a substantive competitive significance to the provision of the telecommunications services and falls within the functions of the FTC under the Fair Competition Act the OUR shall refer the matter to the FTC.

Under the Telecommunications Act the OUR is required to determine which public voice carriers are to be classified as dominant public voice carriers and

³⁶ See Lodge and Stirton 2002a, *Embedding Regulatory Autonomy: The Reform of Jamaican Telecommunications Regulation 1988 – 2001*, Centre for Analysis of Risk and Regulation Discussion Paper no. 5; Lodge and Stirton 2002b, *Globalisation and Regulatory Autonomy in Small Developing States: The Case of Jamaican Telecommunications Reform*, Working Paper 15, Manchester; Lodge and Stirton forthcoming 2002, ‘Building Regulatory Autonomy in the Caribbean Telecommunications’, *Annals of Public and Co-operative Economics*.

in making this determination the OUR is required to consult with the FTC and take account of any recommendations made by the Commission.

In practice the OUR and FTC work closely together having regularly scheduled meetings to discuss cases which affect both agencies.”³⁷

Providing a sectoral regulator, such as the OUR, with concurrent jurisdiction with a general competition agency, such as the FTC, might be expected to result in a greater degree of self-reinforcement as they are likely to provide similar pro-competitive reform messages. However, the concern is that this is achieved at the cost of:

- dividing the pool of available regulatory expertise into different organisations, which is likely to reduce overall ability to handle technical complexity, and diminish overall regulatory capability; and
- possible jurisdictional overlap, and hence regulatory uncertainty.³⁸

Experience from other jurisdictions has been that the broader the range of industries regulated by a single organisation, the broader the ability of the organisation to respond to unforeseen issues, to identify cross-industry commercial and regulatory competition and pricing trends and issues, and to resist regulatory capture.³⁹

Action *The FTC and OUR should be merged to provide for a single competition and economic regulation authority.*

A clear issue that needs to be addressed as part of such a reform is the legal uncertainty created by the recent decision in *Jamaica Stock Exchange v Fair Trading Commission*.⁴⁰ In lay terms, this case demonstrated that the FTC cannot be both the investigator of a complaint and the ultimate decision-maker. To address this legislative impasse the law should be clarified and the merged FTC/OUR should rely on forceful persuasion, backed up judicial enforcement of the *Act*. While this approach has the potential to be more expensive and time-consuming than the application of administrative penalties, it is more consistent with principles of natural justice. To be effective, this approach probably requires the FTC to undertake and win a number of high profile cases in order to provide a credible deterrent threat.

Action *The merged FTC/OUR should focus its competition enforcement efforts on persuasion with the threat of court sanction as a fall-back position.*

To be effective, institutional checks and balances provided by a regulatory framework must be able to cope with two potential pitfalls:

- capture — with regulation serving the interests of those whose conduct was supposed to be regulated; and

³⁷ Foga *Introduction to Jamaican Telecommunications Law*, viewed 17 July 2002, <<http://www.hg.org/art79.html>>.

³⁸ See Booz Allen & Hamilton 2002b, *Jamaica Information and Communications Technology Project: E-Government Component — Consolidated Final Report*, Booz Allen & Hamilton, McLean (VA), p. 85.

³⁹ The project team notes that this approach is different to that advocated by the Jamaica Telecommunications Advisory Council — Jamaica Telecommunications Advisory Council 2002, *Telecommunications Policy reform in Jamaica: Recommendations to the Minister for Industry, Commerce and Technology*, Kingston.

⁴⁰ *Jamaica Stock Exchange v Fair Trading Commission*.

- administrative expropriation — where the regulator sets tariffs or market rules so that the utility provider cannot recoup its sunk costs.⁴¹

Nevertheless, the Jamaican regulatory space has been characterised by substantial checks and balances, ranging from the courts to the FTC, responsible for competition law as well as certain political safeguards which arguably operated to reduce the possibility of capture or other regulatory ‘loose cannon’ behaviour. For example, the *Telecommunications Act* requires that OUR regulations be subject to positive affirmation of Parliament. Similarly, the *Act* authorises the Minister to issue directions ‘of a general nature’, and makes the OUR directly accountable to the Minister.

It can be argued that the extent of these constraints were relevant to provide comfort to new and existing investors in the regulated sectors given the potential risks of the new regulatory regime. However, now that there is a track record of performance, it is appropriate to consider making the competition body independent of day-to-day political control, and make it subject to Parliament as a whole.

Action *The merged FTC/OUR should be an independent body, with any regulations having the status of disallowable instruments.*

Possibly the more difficult institutional issue relates to the possible institutional structures of the BC and the SMA.

A clear concern with respect to the SMA is the inability to fill professional positions. Of 15 professional and technical positions in the SMA, as of December 2001, only eight were filled.⁴² This is clearly untenable. There are two broad options to address this concern:

- merge the SMA with the FTC and OUR —
 - this would have the advantage of strengthening the investigative/inspectorial function of the SMA and the FTC;
 - this may be a less than perfect fit given the technical engineering functions inherent in the SMA’s existing role; and
- merge the SMA with the BC — currently the BC, as the need arises, consults with the SMA on spectrum use by broadcasters. A merger would therefore consolidate licensing and spectrum allocation functions within the one organisation.

Given the proposal to merge the FTC and the OUR, the addition of another merger party would likely be additionally problematic. As such, the SMA should be merged with the BC to provide a single broadcasting licensing and spectrum authority.

Action *The SMA should be merged with the BC.*

3.7 Egovernment

There has been some criticism of the manner in which government services are provided to the Jamaican community:

⁴¹ Levy 1998, ‘Comparative Regulation’, in Newman (ed.), *A New Palgrave Dictionary of Economics and the Law*, Macmillan, Basingstoke.

⁴² Spectrum Management Authority 2001, *Spectrum Management Authority: An Overview of its Operations*, Spectrum Management Authority, Kingston, p. 4.

“Currently, the quality of service to the public is deemed as poor and is characterized by: (i) cumbersome procedures; (ii) long delays; (iii) unsatisfactory resolution of problems faced by clients; (iv) high private costs of compliance with laws and regulations; and (v) discourteous behaviour.

The Jamaican public sector displays characteristics commonly found in most established bureaucracies. Rigid laws and regulations govern Public Sector entities. Compliance with these laws and regulations takes precedence over achieving organisational objectives. In turn, this reduces responsiveness to emerging situations and discourages innovation.

Decision-making is hierarchical and most decisions get pushed up the senior level. Many senior level officials regard themselves as policy makers, controllers or regulators, rather than facilitators.

In addition, both managerial and operational business in the public sector need re-engineering. Most of the current business processes were established decades ago and continue unchanged. In spite of major changes in the external environment and the role of the public sector, business processes have not been restructured. Many business processes that could be completed in one-step or location are fragmented between different organisations or different sections within a given organization.”⁴³

Many of these issues are being addressed through the Public Sector Modernization Programme.

However, during consultations the project team heard many examples of activities undertaken by the Government of Jamaica that could (and probably should) be delivered online. Furthermore, a number of stakeholders pointed out that delay in the adoption of ecommerce by the Government of Jamaica is foregoing significant efficiency gains and gains from raising awareness and confidence in electronic transactions.

Egovernment has been an important feature of Jamaica’s governmental reforms for a number of years. For example, in 2000 UNESCO described the government push in these terms:

“Under the National IT Strategy the relevant goals state that:

“The Government of Jamaica plans to provide its citizens with efficient government services through the use of IT.”

Networks will be established to allow access to government services from libraries, post offices, banks, hospitals and other public locations. The Government will coordinate the locations access, presentation methods, and sharing of resources. The key focus is to have citizens throughout the country, even in rural areas, be able to find and receive information and services from different government organizations consistently and easily.

Actions towards this end include:

- delivery of two types of services: i) providing information to the public, and ii) allowing transactions to be performed. Early emphasis is to be placed on the former, i.e. provision of information to the public. The Minister of Commerce and Technology will establish a goal to provide a certain percentage of information services to the public within the next three years. For example, 25% of information services will be provided by the year 2003.
- Identifying a set of government services suitable for electronic self-service. Enough progress has been made in other countries in the area of electronic government to permit identification and widespread

⁴³ United Nations Educational Scientific and Cultural Organization and Comnet-IT 2000, *Jamaica*, viewed 17 July 2002, <<http://www.comnet.mt/Unesco/Country%20Profiles%20Project/jamaica.htm>>.

deployment of a core set of commonly requested government services that citizens can initiate and complete in a single electronic session.

- Expanding locations where public can access information and obtain public services. To ensure that all citizens have equal access to technology, establish a network of kiosk or computer systems that provide Government information and services in prominent locations in each region of Jamaica.
- Broadening IT access to rural communities through placement of facilities where the public can use it in convenient community locations, such as libraries, post offices, banks, hospitals, and other government offices. For example, rural public libraries can be networked with main libraries to expand the services that are available to the public throughout the country.

Use of partnerships to obtain support, knowledge, loans, computers, services and training to further the development of the IT industry in Jamaica. Development partnerships with industry, universities, and multi-lateral and multi-national organizations. Partnerships are vital to achieving strategic IT goals. These partnerships facilitate major culture changes throughout the government. Public and private sector partners work together to provide more efficient and effective government services.”⁴⁴

The project team is aware of a number of ongoing projects to implement ecommerce solutions in the public sector and were assured that progress was being made. This progress, and further progress, reflects a number of studies recently undertaken for the Government of Jamaica.⁴⁵

It is notable that e-government faces many of the same barriers that ecommerce does, particularly in terms of legislative issues and electronic banking. In this respect, e-government’s prospects will be significantly enhanced if reforms supported in section 3.5 are implemented

Action *The Government of Jamaica should progress widespread adoption of e-government as recommended by Booz Allen Hamilton.*

FEEDBACK SOUGHT

This chapter has suggested a range of general measures that could be adopted to facilitate the uptake of ecommerce in Jamaica. Are there any other measures of a general nature that should be considered by the project team? Are there any foreseeable barriers to adoption that need to be taken into account by the project team?

⁴⁴ Ibid.

⁴⁵ See Booz Allen & Hamilton 2002a, *Jamaica Information and Communications Technology Project: E-Government Component Feasibility Study — Final Report*, Booz Allen & Hamilton, McLean (VA); Booz Allen & Hamilton 2002b, *Jamaica Information and Communications Technology Project: E-Government Component — Consolidated Final Report*, Booz Allen & Hamilton, McLean (VA).

C

Part C

Ecommerce in Key Sectors

Chapter Four

Information Technology

The Information Technology (IT) sector has been of considerable interest in Jamaica and the rest of the world because of its potential for sustained rapid growth, boosting investment, jobs, output and exports (or at least reducing import dependence). More recently it is becoming clearer that the IT sector is a key enabler of competitiveness and growth throughout the economy.

4.1 Situational Analysis

The Jamaican IT industry is comprised of approximately 100 companies and can be divided into the following categories of activity:

- software distributors and dealers;
- professional services ie, consultants, technical support and software development;
- computer training companies;
- Internet Service Providers (ISPs)/web content;
- information technology service providers including data entry, call or contact centres, Geographic Information Systems (GIS), CAD/CAM operators; and
- full service or total solution companies.

IT activities of many of the user organisations have become so significant that that they are driving convergence and making the task of industry definition difficult. This is especially so in the area of communications. Many analysts now take a broader perspective and talk about the Information Communications and Technology, or ICT, industry.

Analysts have observed that the IT industry has grown to provide some or reasonable coverage of most major IT needs within Jamaica. The major exceptions relate to computer hardware and telecommunications equipment manufacturing. This should not be viewed as a major impediment. Hardware and equipment is available at world competitive prices. Entering these markets is a risky venture with very thin margins. Table 4.1 summarises the availability of IT products and services within Jamaica.

Table 4.1

IT PRODUCTS AND SERVICES IN JAMAICA

| Service or Product | Availability in Jamaica |
|--|--------------------------------|
| Hardware manufacture | None |
| Hardware assembly | Reasonable |
| Software development | Some |
| Services/consulting | Reasonable |
| Telecommunication Services | Reasonable |
| Telecommunication equipment manufacture | None |
| Internet services/Ecommerce | Reasonable |
| Hardware/software-marketing (retail/wholesale) | Reasonable |
| ICT human resource recruiting/headhunting | Some |
| Outsourcing vendor | Some |
| Training | Some |

Source: Allied Research Associates 2002, p. 55.

The arrival of ISP competition in Jamaica injected the most recent surge of growth into this dynamic sector. The IT service providers have seen sustained growth. Data entry services drove growth in the mid nineties. Call (or contact) centres have been a major source of employment growth in the sector in more recent years. This is supported by Jamaica's telecommunications infrastructure, particularly the Jamaica Digiport International, providing fast and reliable links to the rest of the globe. The Digiport is located in Montego Bay.

Stakeholders advised the project team that the much activity in the software area related to the tailoring of global applications to meet Jamaican and Caribbean needs.

Many key multinational and IT companies have a presence in Jamaica (see Table 4.2). This is said to reflect saturation of the US and other developed markets and the perception that Jamaica can be a gateway to the Caribbean and Central America.

Table 4.2

IT MULTINATIONALS IN JAMAICA

| Company | Activity |
|-----------------------|---------------------------------------|
| Cable and Wireless | Telecommunications |
| Cisco | Dealer-network systems |
| Compaq | Dealer-hardware systems |
| Dell | Dealer-hardware |
| Hewlett-Packard | Dealer-hardware |
| IBM | Dealer-hardware |
| Incomex | na |
| Microsoft | Software |
| Nortel | na |
| Oracle | Dealer-software |
| Fujitsu ICL Caribbean | IT Systems supplying Caribbean market |

Source: The Allen Consulting Group and Allied Research Associates 2002, p. 85

Education and training of an ICT workforce is a rapidly growing activity in Jamaica. This reflects the priority it is given in national industry and ICT policy agendas. The INTEC project, a private-public centre for national ICT strategy, established a goal to create 40,000 new jobs by 2003.

It is also clear that the Government of Jamaica places considerable weight on the need to develop and expand ICT activities.

“In recognition of this new environment, the Jamaican Government has made the integration of information technology into the Jamaican economy a high priority and a strategic imperative.... Jamaica must become the centre for ICT activities and investment in the Caribbean. With our proximity to the United States and other advantages such as language and relatively low labour costs, we are well placed to attract ICT firms and specialists, and to compete with other developing countries for market share of the global ICT business.”⁴⁶

Key elements of the Government’s current strategic plan are summarised in the Box 4.1.

⁴⁶ Government of Jamaica 1996, *National Industry Policy: A Strategic Plan for Growth and Development*, Jamaica Information Service, Kingston, p. 12.

Box 4.1

A FIVE YEAR STRATEGIC INFORMATION TECHNOLOGY PLAN FOR JAMAICA

The Government of Jamaica has made the integration of information technology into the Jamaican economy a high priority and a strategic imperative. It aims to promote Jamaica as a Caribbean hub for IT activities and investment. A three-pronged approach envisages transformations in human resource development, in infrastructure and in the enactment of an enabling legislative and policy framework. A Cabinet sub-committee for IT is steering the process, together with a newly set up Central IT Office (CITO). The former Ministry of Industry and Commerce now has "Technology" added to its name and the Government of Jamaica has publicised its intention to generate 40,000 IT-related jobs in the coming three-year period. Strategic and other measures being adopted in the short term include:

- the annual allocation of 2 to 4 per cent of the national budget to IT initiatives
- catalysing Ministry tactical plans, with an emphasis on education, for the harnessing of ICT in the various socio-economic sectors
- the introduction of a strong IT component in the Public Sector Modernisation Programme
- accelerating the introduction of computer labs in educational institutions
- facilitating private sector initiatives to dramatically increase public access to the internet
- create a Chief Information Officer position within each Ministry
- the establishment of a transparent regulatory framework, adaptable to the emerging e-business environment and covering areas such as privacy, intellectual property and digital signatures
- a system of investment incentives to spread IT activities geographically across Jamaica
- the development of an appropriate infrastructure to facilitate the delivery of governmental services.

In addition, a series of high-profile pilot projects are being undertaken to demonstrate the benefits of IT in the short-term. These projects are intended to further the goal of universal access and emphasise public access to information. The post office network is earmarked for the delivery of a wide range of community services, such as online health-care, weather and disaster preparedness bulletins, the marketing of products and agricultural extension services. Expansion of this infrastructure will also facilitate greater public access to government services, communication with government agencies, Parliament and parliamentarians, thereby reinforcing the democratic process.

Longer term goals include:

- the creation of a nation wide public IT network which is competitively priced, utilises multiple sources and relies on the private sector
- the provision of efficient government services to the public through the use of IT
- the use of IT to increase international trade
- the adoption of ecommerce for government functions, as a stimulus to private sector take-up. The latter will also be facilitated through the provision of the infrastructure components for the take-up of ecommerce and e-business, particularly by SMEs.

Source: United Nations Educational Scientific and Cultural Organization & Comnet-IT 2000

4.1.1 Electronic Commerce Developments

One means of assessing an industry's use of ecommerce is to see what it offers on the Internet. By exploring the www in the much the same way that an ecommerce consumer would when looking for goods and services it is feasible to assess:

- the presence of Jamaican companies on the web;
- the nature of services offered including static marketing information (or 'brochure-wear'), the capacity to lodge queries, capacity to exchange information between buyer and seller, placing orders (not necessarily paid online), and capacity to make an electronic payment;
- the location of the website (often by asking the webmaster where the site is hosted); and

- other information, such as patterns in the application of privacy policies, security and management of complaints.

The project team also assessed how easy it is to find relevant sites. Essentially testing presence in the range of widely used channels (portals and search engines).

This approach does not, of course, provide insight into companies' use of the internet for email, purchasing, participation in EDI and many other online activities. It is also recognised that the approach is not scientific, reflecting more about perceptions and qualitative insights. Insight about these other matters has to be collected through other means.

This section briefly reports on insights obtained from the consultants investigation into Jamaica's IT sector.

The Jamaican IT sector is not as visible on the Internet as the other key sectors. The project team was unable to find a large number of Jamaican IT company web pages, but if there are only a 100 or so IT companies that should not be surprising.⁴⁷ About two dozen IT companies were identified. This suggests that nearly a quarter of the total have websites, which is considerably more than the national average.

Some observations about selected identified IT company websites are provided in Table 4.3.

⁴⁷ The project team found many more listed in various internet directories of computer service companies; there were more than 120 listed in one category of Jamaican computer dealers alone — *Jamaica: Computer-Dealers*, CaribbeanOnLineYellowPages, viewed 19 July 2002, <http://www.caribbeanonlineyellowpages.com/listings_3/3_category_C_1945.html>.

Table 4.3

SELECTED JAMAICAN IT COMPANIES ON THE WEB

| Company | Activity | Ecommerce Enablement | Web site location | Web Address |
|---|---|--|--|---|
| Advanced Digital Services | Software development and IT consulting company that specialises in applications for the insurance industry | Company information and marketing. Some price information. | [awaiting e-mail] | http://www.advanceddigital.com |
| Amaze Internet Limited | Website Design, Ecommerce and Site Marketing | Company information and marketing. | [awaiting e-mail] | http://www.amaze2000.com/ |
| Cable and Wireless Jamaica | Telecommunications, ISP, web hosting etc | Company information, product information, mail for further information, can review bills. Chat line. No online payment facility. | Jamaica | http://home.cwjamaica.com/ |
| Colis Internet Services | ISP and Internet services including web page design and hosting. | Company information, product information (including some prices). E-mail for further information. No online sales facility. | [awaiting e-mail] | http://www.colis.com/ |
| Coltron International Ltd | Computer sale, repair and maintenance. Network installation. Structured cabling, Web page designing/hosting. | Company information. Some product information and prices. No information exchange. No online sales. | [awaiting e-mail] | http://www.coltronja.com |
| Computer Merchant | Computer products and services. website design. Technical support. Training. | Company information. Software downloads. Electronic product quote and shopping under development. | [Westmoreland, Jamaica] | http://www.compmerchant.com |
| Cybervale | ISP, web hosting and portal for business in St Catherine | Company information. Prices. Chat room. No electronic exchange facilities. Local content directory. | St Catherine, Jamaica | http://www.cybervale.com |
| Digital Technology Inc. Ltd., | Internet and e-Business Solutions Provider. Specialising in software development, website productions and IT consulting | Company information and marketing. | overseas (Jamaican content) | http://www.digtechinc.com |
| InfoChannel (Allied with Centennial Communications Corporation) | ISP. Web hosting. Global roaming. | Company information. Product information. Electronic sign up (e-mail) and support. No electronic payment. | Jamaica | http://www.infochan.com |
| Jam Web (a wholly owned Grace, Kennedy Company) | ISP (satellite) Web hosting, consulting, and Internet services. | Company and product information (prices). No electronic orders or payment facility. | [awaiting email] | http://www.jamweb.net/ |
| Jamaica Focus | Website development and hosting. | Company and marketing information. On line orders. | [Jamaica] | http://www.amaica-focus.com/Arrival.htm |
| Jamaica Online (US partner Qualitech Computer Services) | ISP. Web and mail hosting with roaming capacity. Interactive and event broadcasting services. | Company and product information with prices. Portal for information about Jamaica. No electronic sign up or payment facilities. | Kingston, Jamaica and in the US | http://www.jol.com.jm |
| Jamaica Web Services | Web hosting, web design, and domain services. | Product and service information. | Servers are located in Philadelphia, San Francisco, New York, Dallas, Chicago, Baltimore, and elsewhere. | http://www.jamaicawebservices.com/ |

| Company | Activity | Ecommerce Enablement | Web site location | Web Address |
|-----------------------|--|--|--|---|
| Jam Chat | Internet telephony reseller | Company information. Prices. Electronic payments (US\$ and Jamaican\$ credit card) | [overseas] | http://www.jamchatjm.com/ |
| JM.Net | Web site consulting, design and hosting services. Off the shelf web presence in See Caribbean OnLine Business directory as well as custom web sites. | Product and service information. | US | http://www.jm.net/ |
| J Zone | Ecommerce, business consultancy and custom development | Company and product information. | Kingston, Jamaica (plus US and Canada) | http://www.j-zone.com/ |
| Teleservices Jamaica | Telemarketing services including call centre, data entry, telephone survey, and Internet help desk. | Company and service information. Contact details. | [awaiting e-mail] | http://www.telejamaica.com |
| Fujitsu ICL Caribbean | IT Systems supplying Caribbean market | Company and service information. | Trinidad (with Jamaican content) | http://www.fj-icl.com/ |

Source: The Allen Consulting Group

It is clear from even this partial listing of Jamaica IT company websites that this sector of industry has made a significant investment in engaging in ecommerce and the information economy. A sense that the project team obtained when reading the company histories was that most of these companies have been in the industry for some time, most over five years, which is a very long time in Internet terms. They mostly appear to be durable companies of substance. A further sense is that they are expanding the nature and range of the products and services they offer. They are growing.

Use of the Internet also seems to be well integrated into their business model. They are not 'dot coms' throwing away value for nothing. Most have an underlying business and are progressively using ecommerce to extend and expand.

It appears that Website use by Jamaican IT companies are largely limited to advertising at present. Only a handful had implemented the capacity to exchange information beyond an exchange of e-mail. Only a couple have the capacity to place an order online and only one allows for online payment (via credit card). This is at odds with experience in many other countries where the IT sector is a leader in engaging in ecommerce. IT companies tend to be innovative and their clients generally have access to PCs and the Internet, making use of ecommerce a natural transition.

It is not clear why the telecommunications companies and ISPs (who make up a large part of Jamaica's IT industry) have not advanced further in electronic bill monitoring and payment. Service providers in other countries

have encouraged this not just as a way of winning customers but also of reducing costs.⁴⁸

It is not surprising that the IT service companies engaged in web design and hosting do not have electronic payment systems on their web sites. Most value for these businesses is created in a small number of transactions with business clients, rather than a large number of small transactions with consumers. Ecommerce for this group is largely about raising awareness about their abilities.

The project team also observed that many of the Jamaican IT company sites were hosted offshore. Some were developed or designed offshore. Naturally, when marketing to a global audience businesses should send their message through the most efficient means, and this often means location offshore. They should also draw on the best the world has to offer when designing their products. The ability to do this at a relatively modest cost is one of the strengths of Internet technology and is a driver of globalised production.

Nevertheless, the leakage of value offshore points to a theme of the consultancy project that is even more apparent in other Chapters. There isn't a shortage of ecommerce sites about Jamaica. What is in short supply is Jamaican ecommerce, that is, ecommerce capacity built and operated by Jamaican industry in Jamaica.

Development of Jamaica's capacity to build and operate websites competitively is a key consideration for the future of ecommerce on the island. Stakeholders consulted through this project indicated that Jamaicans were talented web designers and builders. Jamaicans are involved in many successful websites hosted and operated in Jamaica. The question remains; why are so many websites built and operated offshore?

4.1.2 Finding Jamaican IT Websites

The project team was unable to locate an internet portal or gateway page that reliably collected information and links about the full range, or even a large range of Jamaican IT websites. This is in contrast to sectors such as entertainment and tourism where there are many such portals with much content. Some of the websites that promised a directory of Jamaican IT and telecommunications websites were found to be unreliable (eg, links were often out of date). Some were assembled by community groups or industry associations on a voluntary basis and the organisations have apparently ran out of resources or interest declined.

While the portals are not reliable (it is necessary to scan two or more to be sure that the searcher has found what is desired), there is no shortage of portals. Some of the major portals and comments about them from the perspective of using them to identify Jamaican IT websites are provided in Table 4.4.

⁴⁸ It is notable that one of the major challenges (and a barrier to entry) for the new Jamaican ISPs would have been finding customers and also working out how to collect payment from customers all over the island. The irony is that every customer with a new Internet account, was also acquiring a new means of paying bills.

Table 4.4

MAJOR INTERNET PORTALS REGARDING JAMAICAN IT SITES

| Portal | Type | Comment |
|-----------------------|--|--|
| Yahoo.com | Global portal. | Few Jamaican IT site listings. Most links were operational. |
| handilinks.com | Global portal. | Good Jamaican IT site listings. |
| Caribseek | Caribbean portal. | Stronger on tourism. Limited number of IT business sites. |
| See-caribbean.com | Caribbean portal. | Limited number of Jamaican IT sites listed. The see-caribbean site was not found quickly by the project team. |
| Jamaican Yellow Pages | Jamaican portal. | |
| netsearchjamaica.com | Jamaican portal. | Largest number of IT sites. Many links were unreliable. It was not easy to find the netsearchjamaica.com site itself. |
| Top 5 Jamaica | Specialist host for Jamaican sites, although it is hosted and developed in Canada. | Small number of IT sites. All were operational. This site reliably comes up amongst the 1 st few results when using search engines about Jamaica. |
| Jamaicans.com | Jamaican portal. | Limited links to IT business sites. Better site for Jamaican culture. |
| Jamaica-gleaner.com | Jamaican. | Business directory has limited links to IT business sites. |

Source: Allied Research Associates 2002, p. 55

The profusion of portals is not unique to Jamaica. In fact the large number is a positive sign, indicating that Jamaica is maintaining a broad and vibrant Internet presence. It remains the case, however, that it is relatively difficult for foreigners or new investors into Jamaica to find Jamaican IT suppliers on the web.

It is possible that Jamaican IT companies could obtain more awareness and higher levels of demand if it was easier to find them on the web.

They may also gain value if they could raise the level of online commercial functionality. That is, enable more transactions. Alternatively, they could reduce costs (for themselves and their consumers) if they enabled electronic payment rather than physical payment.

4.1.3 Export Potential and Trade Impacts

There is export potential from the IT companies that have an online presence. By definition, those companies that are online are already marketing themselves worldwide. From the review of selected websites the project team has observed that:

- many of the web development and web hosting sites have exported web sites to buyers overseas. Some are operating business Internet directories and portals for the Caribbean at large from Jamaica (although the host may actually be located at Network Access Points (NAPs) in the US);
- many of the multinational IT companies located in Jamaica have a specific Caribbean mission;
- the call centres and related services have also built their business on export potential;
- some ISPs have located in Jamaica as a base for their Caribbean services; and
- the domestic equipment suppliers appear to be the least export oriented.

It is not clear that it is feasible to encourage the export potential of IT enabled Jamaican IT companies without also growing the domestic foundations of many of these companies. Few, and perhaps none, of the existing companies reviewed was ‘born global’ in the sense that they started as a purely export business. As noted already, most have a foundation in domestic sales.

While the IT sector is export capable, it is also clear that it is import intensive. Many goods and services to support the industry are imported. Certainly the hardware is. Service support is also being effectively imported (eg use of overseas web designers or hosting of websites offshore). In an interesting paradox some of the most sophisticated countries in the world experience an IT trade deficit (including Germany, France, Italy the UK and Canada, with the US having the largest deficit within OECD countries).⁴⁹ The countries that have a sustained IT trade surplus are generally those countries that specialise in IT hardware exports (eg, Japan, Korea and Finland).

It is quite likely that rapid expansion of the IT sector in Jamaica would also induce a rapid expansion of imports.

In other countries the IT trade deficit is not a major concern. The sector is seen as rapid source of domestic growth and employment and more recently, as a critical enabler of competitiveness in other sectors of the economy. This should also be so in Jamaica, although having a small, more vulnerable economy, trends in the IT trade deficit should be monitored as part of a strategy to expand the sector.

4.2 Challenges

Some years ago the *National Industrial Policy* identified many challenges for this sector. These included:

- limited capital availability for start up ventures;
- vigorous competition from other countries such as the Philippines, India, China, and Bangladesh;
- evolutionary change in data entry and data collection that erode some of Jamaica’s advantages;
- bias in the incentive legislation that has favoured only those firms within the free zones; and
- weaknesses in the supply of technical and analytical skills from the education and training system.⁵⁰

Consultations with key stakeholders indicate that these challenges remain a concern. There is also a significant new challenge, the global downturn in the ICT industry. This is expected to be cyclical rather than structural, but it is still the case that it is very difficult to encourage investment in the IT industry at present. The IT industry in many countries is static, or even

⁴⁹ Organisation for Economic Cooperation and Development 2000, *Measuring the ICT Sector*, OECD, Paris, p. 27.

⁵⁰ See Government of Jamaica 1996, *National Industry Policy: A Strategic Plan for Growth and Development*, Jamaica Information Service, Kingston.

shrinking. In this context maintaining trend growth in the IT over the next year or so should be viewed as a major achievement.

A major observation from examination of the Jamaican IT sector is that while it has made progress and built something of a foundation, it is not yet at a position to support widespread adoption and use of ecommerce. It is still unclear what factors are impeding development of the range of activities that support and develop Jamaican ecommerce. Major possibilities that have been raised in discussion with key stakeholders include:

- shortage of technical skills — building a website is not a significant technical challenge. The most complex aspects (such as payment and security arrangements) can be purchased as components “off the shelf”. People with useful skills are emerging from the education and training system but are not finding employment in Jamaican workplaces;
- lack of capacity to do large projects — large projects require teams of people with experienced leaders with project management skills. Stakeholders report that there are very few IT companies in Jamaica that can manage large projects;
- difficulties facing startup companies — including limited access to venture capital funds and entrepreneurial know how;
- difficulties in using the Jamaican banking system to support electronic payment and exchange — discussed in more detail in the Chapter dealing with banking and Finance);
- poor access to affordable bandwidth — business websites need to be reliable and fast. High speed fibre-optic cable is often the only feasible technological approach. While this is available in Jamaica, there is evidence that it is relatively expensive; and
- lack of a domestic demand — demand for domestic IT/ecommerce development services may be insufficient to build the industry to a competitive scale. A range of factors that shape demand for services including lack of awareness about the potential for ecommerce, where to find Jamaican companies that can provide advice about ecommerce, its applicability to business in general, especially for SMEs, may be at play. In addition, as noted at the outset of this study, Jamaica has not yet reached the take off point where the Internet has penetrated most walks of life and web development bursts ahead as the community finds new ways of making life and business easier.

4.3 Suggested Approaches

Some specific actions that would advance the strategic goals set earlier in the report are suggested below.

- Action* Continue to implement the Five-Year Strategic Information Technology Plan For Jamaica.
- Action* Raise knowledge about ecommerce use and developments within the IT industry.
- Action* Expand incubation of IT ecommerce start up companies.
- Action* Engage in post incubation support for emerging IT companies.

- Action** *Raise opportunities for partnership building within Jamaica and abroad. A key limitation has been lack of understanding in depth about the actual Jamaican IT industry as it stands.*
- Action** *Make it easier for companies to find Jamaican IT companies and learn about their market offerings. Encourage co-operation in the development and maintenance of a private sector ICT/ecommerce portal site. This could include working together to improve the positioning of an existing private sector site.*
- Action** *Promote awareness about Jamaican IT/ecommerce success stories and interesting new ventures.*
- Action** *Obtain greater Jamaican development leverage from government purchasing of IT inputs.*
- Action** *Review progress against key performance indicators (KPIs) within three years and make changes as necessary to the policy mix and strategic approach.*

Some of these measures are straightforward and require no further explanation; others do.

4.3.1 Development of Key Performance Indicators

The development and application of KPIs is an important step in any whole of government strategy; what gets measured gets noticed. In this regard:

some effort should be devoted in the short term to the development and clear exposition of the indicators and the target benchmarks for which the Government of Jamaica should be aiming. In general, it is reasonable for Jamaica to aim to be in the top two Caribbean best performing countries for every KPI. Some suggested KPIs include:

- Internet host penetration;
- Internet user penetration — in addition to being in the top two per capital Internet users in the Caribbean, Jamaica could seek to pass the ‘takeoff point’ of eight to ten Internet users per one hundred inhabitants (see section 1.2);
- the cost of telephone access and associated dialup Internet use; and
- the cost of broadband Internet use.

FEEDBACK SOUGHT

What KPIs should be the focus of attention? Should targets (eg, being in the top two countries in the Caribbean) be applied to the KPIs, and if so, what should they be?

It is only after a number of years that these KPIs would have had time to adjust to the reforms outlined in this Discussion Paper, and it is at this time that the success of the ecommerce strategy will be truly apparent.

FEEDBACK SOUGHT

Over what timeframe should KPIs be assessed??

4.3.2 Raising Knowledge — An ICT Ecommerce Audit

It is proposed that the Government of Jamaica undertake an ICT ecommerce audit. This is not an examination of the use of ICT with different sectors of the economy as proposed under the Government's *Five Year Strategic Information Technology Plan For Jamaica*. The focus is not upon inputs, rather what factors lead to competitiveness and raising demand.

Key dimensions examined should include:

- learning with more precision what kind of companies are in the sector, how many people they employ, which ones are online (ie, have or use a website) and which are not?;
- what skill sets are required to go online? How are ecommerce facilities enabled? (eg, self owned and operated, outsourced in Jamaica or overseas);
- how are ecommerce facilities in the sector financed? (eg, retained earning, bank finance, venture capital);
- how ecommerce relates to the underlying business model and strategy in forms in the sector, what are their online markets, who are their competitors online and through traditional channels?;
- how companies in the sector interface with global supply chains, and ways that ecommerce is changing this; and
- the extent to which firms in the sector are pursuing new partnership arrangements to facilitate ecommerce, or where ecommerce facilitates partnerships for other reasons.

Aggregate data should be compiled and reported, although an underlying data base should be retained for analysis over time.

A natural fit for this task would be to conduct it within CITO, although other agencies may be able to contribute. This should not be viewed as an overly demanding process. A team of two reasonably qualified personnel could be able to do this within two to three months (there are after all only 100+ companies to identify and review).

Data from the audit should be used to establish benchmarks upon which to assess performance of policy measures. KPIs could include numbers of companies, levels of employment, levels of investment, volume of sales, entry and exit from the industry.

The ICT ecommerce audit results should be distributed widely within the Government of Jamaica to raise awareness and understanding about the sector, its ecommerce potential and its challenges.

Findings from the audit should be discussed within various forums. CITO could organise forums in key parts of Jamaica to discuss the findings and the development of performance indicators.

4.3.3 Obtaining Greater Leverage From Government Purchasing

Government agencies should be required to formally evaluate the potential for local sourcing for IT inputs on all projects. This is mainly to ensure that local producers are not overlooked, not to induce a bias against imports, which would be against the spirit of the WTO and TRIPS.

Where local inputs are inadequate, unsuitable or not competitive, the procurement process should formally require investigation of the potential for the involvement of Jamaican inputs. This should be given a high weighting in procurement decisions.

The Government of Jamaica should apply ‘moral suasion’ to multinationals operating in Jamaica to demonstrate a commitment to developing the Jamaican IT industry. Many countries have ‘Partners for Development’ schemes which require that multinational companies report on additional activities that contribute towards local IT industry development over a predetermined timeframe (often two to three years). Companies that ‘graduate’ from such programs are given preferential treatment in terms of competition for government procurement contracts.

The Government should expect complaints against this initiative from multinational ICT companies. These companies, especially those from the US, are typically initially fractious about the idea of governments posing conditions upon contracts. That said, once the global companies see that the Government of Jamaica is serious in this matter and they start looking for new ways of meeting requirements, as well as making a profit, and they discover the benefits from making a real commitment to the market they are operating in, they generally acknowledge value in the approach.

If some global ICT companies are genuinely not interested in providing any more than a sales and marketing office in Jamaica, the leverage approach will at least highlight quickly who they are, encouraging the Government of Jamaica to quickly move on in forming closer relationships with those that offer more. If this seems somewhat discriminatory it should be recalled that the small open economies that are making the most rapid gains in accelerating competitiveness in recent decades have done so through close relationships with businesses that offered to do more than just make a profit in the host country, as well as providing an environment where business in general could thrive.

This is an activity that could be administered by CITO or perhaps other elements of the MCT.

FEEDBACK SOUGHT

Are the actions suggested in this chapter appropriate? What other actions could be considered by the project team?

Chapter Five

Banking And Finance

Banking and finance is a key sector of interest for ecommerce policy. This reflects the potential benefits that greater use of ecommerce can bring to the sector, as well as the importance of this sector in enabling and facilitating ecommerce in other areas of the economy.

Jamaica's banks have been a major barrier to ecommerce adoption:

- by consumers —
 - banks' reluctance to support credit cards in Jamaican dollars that are able to be used seamlessly on overseas transactions has limited consumers' ability to purchase online;
 - banks have been slow to offer online banking facilities, although there has been some movement recently (see Table 5.1); and
- for merchants — local banks' reluctance to offer online merchant services has impaired business ecommerce offerings.⁵¹

Table 5.1

COMMERCIAL BANKS AND BUILDING SOCIETIES IN JAMAICA

| Institutional Type | Institution | Internet | Online capability |
|---------------------------|--|---|---|
| <i>Commercial Banks</i> | The Bank of Nova Scotia Jamaica Limited | http://www.scotiabank.com.jm | None apparent |
| | Citibank N.A. | http://www.citibank.com/jamaica/ | Online banking, apparently for businesses |
| | RBTT Bank Jamaica Limited (formerly Union Bank of Jamaica) | http://www.rbtt.com/RBTTJamaica.htm | None apparent |
| | CIBC Jamaica Limited | http://www.cibc.com/ | Online banking |
| | National Commercial Bank Jamaica Limited | http://www.jncb.com/ | |
| | First Global Bank Limited | None apparent | |
| <i>Building Societies</i> | CIBC Building Society | Subsidiary of CIBC Jamaica Limited (above) | |
| | Jamaica National Building Society | http://www.jnbs.com/ | Online international payments |
| | The Scotia Jamaica Building Society | Subsidiary of The Bank of Nova Scotia Jamaica Limited (above) | |
| | Victoria Mutual Building Society | http://www.vmbc.com/ | None apparent |

Source: The Allen Consulting Group and Bank of Jamaica

Marshall has summarised how this reluctance to support consumer and business ecommerce facilities are intertwined in a practical sense:

⁵¹ See Grant (ed.) 2001, *A Regional Initiative for Informatics Strategies: Workshop on Sectoral Planning for Information Technology — Final Report*, Government of Jamaica, Commonwealth Secretariat, Caribbean Development Bank, United Nations Educational, Scientific and Cultural Organization, Kingston.

“Businesses involved in eCommerce in the region, are limited in terms of their customer base to those people who have access to credit cards. Let us consider what percentage of the total population of Jamaica have credit cards. Whatever that percentage is, that is the maximum number of potential eCommerce customers today. Most online transactions cannot be done today without credit cards. On the other hand, every Jamaican has money to spend. We are not talking about wealth, we are simply talking about the ability to purchase a good or a service.

Electronic commerce, as it is presently conducted, is therefore restricted to a small segment of all our societies and will not become widespread until we develop ways to extend it to a greater segment of our societies.

This is again not a purely domestic issue. In much of Latin America, a region that the Caribbean is drawing close to, banks have forbidden merchants from clearing credit card sales online. Most people cannot participate in online commercial activity unless they have a bank account with one of the few banks which will allow you to manage your account online and make payments via this medium.”⁵²

These factors limited the capacity of Jamaican businesses to take credit card payments from overseas customers, as well as the use of domestic credit cards to make purchases online. Furthermore, business concerns about limited access to electronic banking and credit card settlement in Jamaica are one reason why ecommerce sites about Jamaica are hosted and operated offshore.

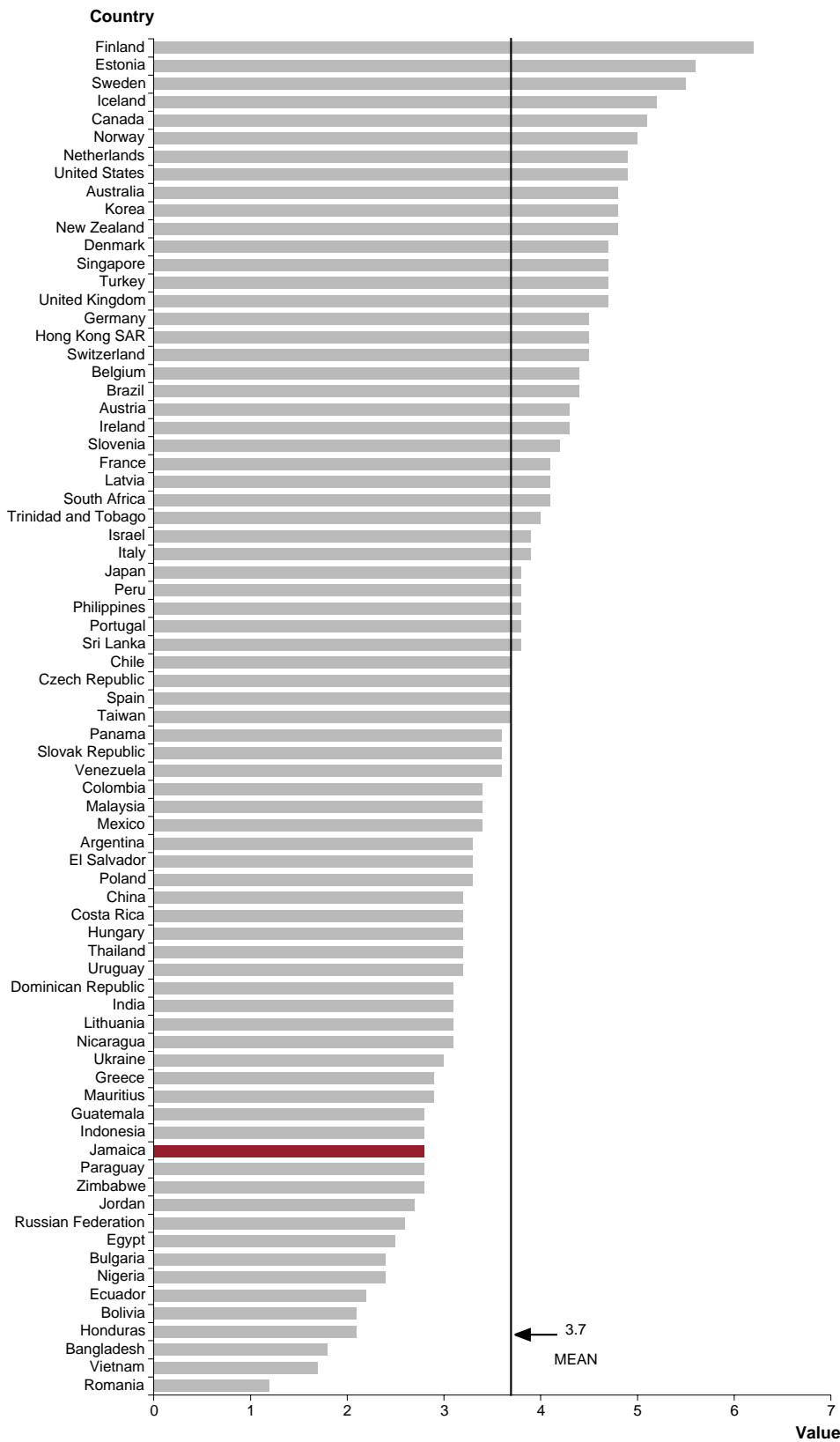
As a result, Jamaica lags in the use of Internet based payment systems, both in general and in comparison to a number of its peers — Figure 5.1.

⁵² Marshall 1999, 'Exploiting the Potential of Electronic Commerce: Opportunities and Challenges', paper presented to FTAA Joint Government/Private Sector Committee of Experts on Electronic Commerce at the WIPO Regional Consultation on Electronic Commerce and Intellectual Property, Montego Bay, 9 June, p. 4.

Figure 5.1

USE OF INTERNET-BASED PAYMENT SYSTEMS

Online Internet payment systems in your country are (1=not available, 7=used by most people)



Source: Kirkman et al. 2002, p. 373

Some stakeholders argue if banks and other participants in the financial sector implement electronic exchange arrangements then they would be taking significant commercial risks because existing legislative arrangements may undermine the standing of electronic records if payments were disputed. Essentially, it was held that at law the only record that would be acceptable to a Jamaican court was a signed piece of paper. This concern will be addressed by reforms advocated in section 3.5.

While the reluctance to facilitate credit card and online merchant services may be justified as a conservative response to the stability problems faced in the 1990s,⁵³ it is time to move on and acknowledge that concerns about fraud can now adequately be addressed.

Indeed, it is acknowledged by the financial sector that change is inevitable and the financial system must respond positively:

“The elimination of barriers to trade and financial flows and the surfacing role of e-commerce will undoubtedly further encourage the design of alternative payment instruments. The need may fast arise for reform of the current payment systems in the Caribbean to meet the changing requirements of the marketplace. In order to have an efficient payment system, it will be necessary to institutionalize more sophisticated e-payment technologies than currently exist.”⁵⁴

Banking stakeholders with responsibilities for the payments system do not see that current arrangements impose any particular constraint upon the development of ecommerce. They note that Jamaica is progressively advancing towards less costly means of exchange, gradually moving away from cash and cheques, towards electronic systems including ATM and debit cards, within the constraints of a strong cultural preference for cash. Nevertheless, some banking stakeholders advise that progress was imminent regarding the facilitation of more effective electronic settlement arrangements.

The concern is that the pace of change is not adequate and that the financial sector is unduly cautious to the detriment of Jamaica’s ecommerce development.

There are a range of options that could be considered to advance the uptake of more advanced payments systems that will facilitate the adoption of ecommerce by businesses and consumers. These include:

- regulation to mandate that credit cards must be globally accepted — given that Jamaica’s banks are in possibly breach of the global credit card rules, this approach may be supported by the global card companies; or
- withdrawal of government business from banks that are not using electronic payments systems — an approach used successfully in some other parts of the world has been to only make payments to welfare recipients and so on to accounts that use electronic payment methods. This approach uses the power of the Government of Jamaica as a purchaser to shape the incentives faced by the financial sector.

The second is the preferred approach, with regulation a fall-back option.

⁵³ Langrin 2001, 'Forecasting the Future of Caribbean Business and Trade: Are We Ready for Payment Systems Reform?' *CaribExchange TradeNet*, vol. 1, no. 1, pp. 17-8.

⁵⁴ *Ibid.*, at 18.

Action *The Government of Jamaica should use its purchasing power to encourage the financial sector to provide consumers with globally convertible credit cards and online merchant facilities.*

FEEDBACK SOUGHT *While the financial system is integral to the adoption and use of ecommerce, this chapter has identified relatively few actions directed specifically at the financial sector. What other actions should be considered by the project team?*

Chapter Six

Tourism

6.1 Situational Analysis

Tourism and tourism related services contribute significantly to Jamaica's economy. In 1992 these activities contributed 13 percent of GDP, 45 percent of foreign exchange inflows and about eight percent of national employment.⁵⁵

Tourism is also a sustained contributor to growth. Total arrivals have grown by about 16 percent over the period since 1996, with foreign exchange earnings growing by 13 percent.

Table 6.1

TOURISM PERFORMANCE INDICATORS 1996-2000 (AVG. '000)

| INDICATORS | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | % Change 1996/2001 | % Change 2000/2001 |
|---|-------|-------|-------|-------|-------|-------|-----------------------|-----------------------|
| Foreign Nationals | 1,053 | 1,085 | 1,128 | 1,147 | 1,219 | 1,187 | 12.7 | -2.7 |
| Non-resident Nationals | 109 | 107 | 97 | 101 | 103 | 89 | -18.3 | -13.4 |
| Total Stop-Overs | 1,162 | 1,192 | 1,225 | 1,248 | 1,322 | 1,277 | 9.9 | -3.5 |
| Cruise Passengers | 658 | 711 | 673 | 764 | 907 | 840 | 27.7 | -7.4 |
| TOTAL | 1,820 | 1,903 | 1,898 | 2,012 | 2,230 | 2,117 | 16.3 | -5.1 |
| Foreign Exchange Earnings (US\$ million) | 1,092 | 1,131 | 1,197 | 1,279 | 1,333 | 1,234 | 13.0 | -7.4 |

Source: Planning Institute of Jamaica 2002, p. 15.1

The sustained underlying growth of the sector is attributed to a range of factors including the success of the all-inclusive resort concept, significant expenditure on promotion by the Government of Jamaica and industry, and the underlying qualities of the destination product (natural resources, culture, entertainment and ambiance). Key strengths listed by government agencies are listed in Box 6.1.

⁵⁵

National Industrial Policy, April 25, 1996, *A Strategic Plan for Growth and Development*.

Box 6.1

JAMAICA'S KEY TOURISM STRENGTHS

- An incredibly diverse topography and superior natural product
- High levels of destination awareness (our name is well known internationally)
- Jamaica's invention and spread of all-inclusives together with our sophisticated market segmentation
- High quality and wide range of visitor accommodations
- Vast expenditure on promotion and advertising, especially by all inclusives
- Close proximity to North America
- Jamaica's location in the hub of major air and shipping routes
- Domestic airline connections to major resort areas
- Incentives offered for the accommodations and attractions sub-sectors
- Jamaican hotels are more profitable than other Caribbean hotels and provide better return on investment.
- Payroll costs are three times lower than wages in the US

Source: <http://www.jamaicanetlink.com/business/opportunities/tourism.shtml>

The commitment by the Government of Jamaica to the sector is substantial. In addition to Ministry of Tourism there exists two other offices given the mandate of developing a growth path for tourism in Jamaica. The Tourism Office within the Office of the Prime Minister is an overseer to all the organisations within the industry established to develop the tourism product, such as the Jamaica Tourist Board (JTB) and the Tourism Product Development Company (TDPCo). Secondly, JAMPRO, Jamaica's export and investment promotion agency, also has a Leisure Industry Department responsible for the promotion, development and facilitation of investments within the sector.

Fiscal investment incentives also apply to large scale and small tourist activities. These are provided under the Hotels Incentives Act; the Resort Cottages Incentives Act; and the Hotels Refurbishing Act incorporated under the Modernization of Industry programme. Incentives are in the form of Corporate Income Tax Relief, and Duty Waivers on capital items for periods ranging from seven to 15 years.⁵⁶

Despite its strengths and support from the Government of Jamaica, the tourism industry suffered a setback in 2001. Total visitor arrivals fell to 2.1 million, 5.1 percent less than the previous year. The economic recession in the United States and other source markets reduced activity in the early part of 2001. Security concerns following civil disturbances in Kingston in July and on September 11 resulted in a sharp reduction in arrivals and tourist related economic activity.

6.1.1 Electronic Commerce Developments

Similarly to the analysis in other sectors the project team has examined the state of play in Jamaican Tourism ecommerce by looking at what is in place

⁵⁶ See JAMPRO *Tourism*, viewed 19 July 2002, <<http://www.jamaicanetlink.com/business/opportunities/tourism.shtml>>.

today on the web. The project team examined the use of the web regarding Jamaican Tourism in relation to four broad kinds of services:

- travel — basically, how to get to the tourist destination. This generally involves dealing with transport links (airlines, train, road transport), as well as travel agency ticketing services;
- accommodation — where to stay at the destination;
- experience — what to do when you get there. Often involving a range of activities including sightseeing tours, cultural/heritage tours, weddings, conference planning, bus and car rentals, and destination management; and
- locality guides — these often bundle all three of the above services with an emphasis upon a specific region. They are emerging as very important sites for groups of smaller tourist operators.

The project team also looked at the overall balance of sites. In other countries it can be observed there has to be a balance of all types of functionality. People will not go to a place that does not look attractive. Equally they need to know they can get there affordably. It is noted that the definition between types of sites is often blurred, where some sites deal with, for example, accommodation and information about attractions.

Table 6.2 summarises observations about selected Jamaican tourism web sites.

Table 6.2

SELECTED WEBSITES FOR JAMAICAN TOURISM FACILITIES

| | Institution | Internet | Online Capability |
|------------------------|---|---|--|
| Travel | Air Jamaica | http://www.airjamaica.com/ | Company and product information. Prices. Schedules. Booking via Expedia. |
| | Air Negril | http://www.airnegril.com/ | Company and service information. Prices. Schedules. Affiliated with cheapairlines.com with booking and payment capacity. |
| | Information site for Montego bay cruise ship passengers | http://www.cruisemontegobay.com/ | Travellers information. Schedule of cruise ship visits. |
| | Derrons car rentals | http://www.derrons.com/ | Company and product information. Prices. Telephone and e-mail contact. |
| | Apec car Rentals | http://www.apex-cars.com/ | Product information. telephone, fax and e-mail contact details. |
| | Jamaican Travel Specialists | http://www.jamaicantravel.com/ | Listing of accommodation and travel services. Electronic bookings. |
| | Great vacations | http://www.greatvac.com/ | Product information. Phone, fax and e-mail contact. Bookings and Online airline reservations via Sabre. |
| Accommodation | Sandals | http://www.sandals.com | Product and service information. Some online reservation capacity. |
| | Superclubs | http://www.superclubs.com/ | Product and service information. Online reservation and payment capacity. |
| | Inns of Jamaica | http://www.discoverjamaica.com/gleaner/inns/ | List of accommodation providers. Telephone and e-mail contact. |
| | Jamaica Tourist Board | http://www.insidersjamaica.com/ | Directory of hotels. Booking system did not appear to work when accessed. |
| Experience | Holiday Services | http://www.holiday-services.com/ | Company and service information. Relies on fax and e-mail. |
| | Leisure For Pleasure Holidays & Tours Ltd | http://www.leisurejamaica.com | Company and service information. Price information. Electronic booking. |
| | Jamaqua Dive Centre | http://www.jamaqua.com | Company and service information. Prices. E-mail and phone access. |
| | Chukka Cove Equestrian centre | http://www.chukkacove.com | Company and service information. Telephone and e-mail contact. |
| | Calico Sailing Cruises | http://www.montego-bay-jamaica.com/ajal/calico/ | Company and product information. Price information. Phone and fax contact details. |
| Locality Guides | Port Antonio Jamaica | http://www.portantoniojamaica.com | Locality information. |
| | Montego Bay | http://www.montego-bay-jamaica.com | Locality information. |
| | Negril | http://www.negril.com | Locality information |

Source: The Allen Consulting Group

From this analysis it is clear that tourism is Jamaica's leading ecommerce sector. The key points are:

- there is already a very large number of websites projecting Jamaican tourism opportunities onto the global marketplace;

- Jamaican tourism facilities are already present in every one of the four broad types of services;
- ecommerce is still at an early stage of development. Most sites about Jamaican tourism activities provide information about services offered. Most rely on telephone and fax contact details to make reservations and transactions, or receive payment in person. This reduces the cost of the site. It was the team's sense that many Jamaican tourist sites or web pages are probably less expensive to operate than more traditional forms of advertising, such as use of newspapers;
- the large majority of website relate to smaller tourism operators. They have been quick to take this opportunity to use the Internet to advertise to the larger, global market at modest expense;
- very few use the Internet as aggressively as other operators have in other countries. This is especially so in relation to pricing and discounting. The project team observed that many Jamaican advertised prices were set at a higher end of the range and did not seem to vary often. The team was not able to find many Jamaican operators using the Internet to sell temporary excess capacity at discounted prices in the way highly successful businesses such as wotif.com or lastminute.com have in hotel reservation or Virgin has in air travel;
- some Jamaican operators are at the leading edge of e-commerce development. The Superclubs and Sandals websites offer content that is equal to or superior to global competitors. These businesses may be slightly behind in online booking systems and in not offering customer benefits for online bookings and are ahead of the Hilton in terms of having some non-English content. Table 6.3 sets out summary finding from a rudimentary benchmarking study of ecommerce in this area;
- some Jamaican tourist operators are partnering with global or regional players. Jamaica air transport operators rely on global internet systems to undertake reservations and electronic payment. Other sites link within other tourism supply/marketing chains such as Sabre; and
- some Jamaican businesses have partnered to form portal sites, maintaining presence and reducing costs.

Table 6.3

BENCHMARKING HOTEL/RESORT CHAIN ECOMMERCE FACILITIES

| | Sandals | Superclubs | Hilton | Club Med |
|---|----------------|-------------------|---------------|-----------------|
| Product Information | | | | |
| views of facilities | y | y | y | y |
| views of rooms | y | y | n | y/n |
| current price details | y | y | y | y |
| specials/discounts | y | y | y | y |
| additional languages | y | y | n | y |
| Online Information Exchange | | | | |
| e-mail | y | y | y | y |
| oral help online/free | n | y | n | y |
| telephone hotline (toll free) | y | y | y | y |
| online consumer bookings/reservations | n | y | y | y |
| online travel agent bookings/reservations | y | y | y | y |
| Exchange | | | | |
| Online payment | n | y | n | n |
| discounts available online | n | y | y | [n] |
| Trust | | | | |
| Privacy policy statement on homepage | y | y (resort pages) | y | y |
| Security policy statement on homepage | n | n | y | y |

key: y=yes. n=no

Source: The Allen Consulting Group

As with other sectors the project team reviewed the ease of accessing information about Jamaican tourist websites online. Key portals and perceptions of their role played by consultants is set out in Table 6.4. Just as there is a dynamic and growing number of tourist related websites, portals for this market are also emerging to make navigation easier.

Table 6.4

TOURISM: SELECTED INTERNET PORTALS WITH JAMAICAN CONTENT

| Portal | Type/ address | Comment |
|--|------------------------------------|--|
| Yahoo.com | Global portal | A significant number of links. Links were operational. The project team observed that there were many global quality Jamaican websites that were not present on this index. |
| Handilinks.com | Global portal | Relatively large number of travel and tourism listings (large compared to other Caribbean offerings). Most listings are active. The project team observed that there were many global quality Jamaican websites that were not present on this index. |
| Top 5 Jamaica | Specialist host for Jamaican sites | Large number of Jamaican tourist related websites. The portal is largely Jamaican, although there are also a few Caribbean sites. |
| Jamaican Tourist Board (www.jamaicatravel.com) | Jamaican portal | Information intensive site with exclusively Jamaican sites. |
| Jamaica-netlink.com | Jamaican portal | Strong cultural content exclusively about Jamaica. Limited range of sites aggregated. Ability to make reservation for some services via partnership arrangements. Not very visible to the consumer from abroad. |
| Netsearchjamaica.com | Jamaican portal | Large number and range of travel and accommodation sites. |
| Caribseek | Caribbean portal | General portal with a focus on tourism. |
| See-caribbean.com | Caribbean portal | Limited number of Jamaican IT sites listed. The see-caribbean site was not found quickly by the project team. |
| Jamaicatravelnet.com | Jamaican portal | Deeper information for explorers a bit off the beaten track. Information about discounts. email services. |

Source: Allied Research Associates 2002, p. 55

One portal site is in the process of seeking to carry over the success and brand recognition of a telephone marketing channel, using a well known 1-800 code to an Internet service channel. Details are provided in Box 6.2.

Box 6.2

JAMAICA RESERVATION SERVICE (JRS)

The Jamaica Reservation Service (JRS), through 1-800-JAMAICA, is a specialised reservation centre and tour operator offering a variety of quality vacation packages throughout Jamaica. The service permits customers to customise their vacation and seek quotes and place reservations online.

1-800-JAMAICA markets Jamaican vacations exclusively, utilising the services of over 130 hotels, car rental companies and ground tour operators. 1-800-JAMAICA (1-800-526-2422) is open 7 days a week: Monday to Friday 9AM to 9PM Saturday & Sundays 10AM to 5PM EST.

The service operates with the support of the Government of Jamaica.

For more information call 1-800-JAMAICA, or visit 1-800-jamaica.com.

Source: <http://www.1-800-jamaica.com/>

There is an interesting tension between portals that offer Jamaican exclusivity and those that do not. The global portals have the capacity to influence and shape the direction taken of a large Internet audience. Obtaining a prominent presence there can generate a large market, although other tourist offerings are, in Internet technology, 'just a click away'. On the other hand, sites that are exclusive to Jamaica tend to be a little harder to find. Their value proposition is that they can retain the interest of buyers who have already indicated that they are thinking about visiting Jamaica with reduced leakage to competitor destinations.

It is likely that rather than one strategy proving to be the right or wrong one, that both will be important to success. Certainly it seems that banking on only one or the other appears to entail avoidable risks. Meanwhile, it appears that the Government of Jamaica offers most support to exclusive portals. While this is most clearly in the national interest, there may be some additional benefit at modest cost to ensure that Jamaican Tourist companies' websites are also well represented in the global portals. Obtaining value from the Internet is about maximising the benefits from a range of marketing channels.

6.1.2 Export Potential and Trade Impacts

Clearly, tourist operators are investing in electronic commerce facilities and raising their marketing presence on the Internet. The depth of involvement that has been achieved in just a few years, some of which have been difficult economically, suggests that the investment is paying off for business. It is therefore likely that ecommerce in the tourism sector already plays a significant role in Jamaican exports.

Ecommerce still at its early stages in the rest of the world as well as Jamaica and online transactions and export earnings are still at very modest levels. It is likely that the full impact on exports from e-commerce in this sector is yet to be felt.

Dependence on the US market has been found to be a strategy with an occasional downside. The Government of Jamaica has already indicated that it is keen to encourage access to other markets. Use of the Internet offers to help Jamaica to broaden its audience, extending to countries beyond the US.

Very few of the Jamaican sites surveyed had a capacity to undertake actual transactions over the Internet. Those that did so via partnership arrangements with global service providers.

6.2 Challenges

The Government of Jamaica is already addressing real world challenges confronting tourism. These include combating coastal water pollution, tourist harassment and inadequate road infrastructure. Ecommerce is not relevant in dealing with those substantive issues.

One of the key issues is that little is known about this sector and its transition to ecommerce. More information would be valuable in terms of ensuring that effort was being directed wisely.

One of the key issues in economies concentrating upon tourism is to raise occupancy levels. There has been a global shift towards more flexible pricing for many Tourism facilities to raise occupancy and profitability. This has been enabled by the Internet and ecommerce which permits more flexible price systems and provides the means to reach a larger number of people that are able to take advantage of a special offer. It has to be emphasised that this is not merely a strategy for budget hotels. Developing this capacity in Jamaica or leveraging off global systems that are already involved in offering this service could be of strategic value.

Enhancing awareness about Jamaica to non-English speaking countries will involve much more sophisticated use of websites.

While it was noted that many Internet sites represent smaller businesses, it is also likely that a smaller portion of smaller tourism operators have invested in a presence on the web, or Internet technologies. If Jamaica is consistent with patterns of ecommerce development seen elsewhere, and the evidence suggests that it is, then small business tends to lag in ecommerce adoption. There is much to be gained in bringing the remainder of the sector online, if this is done in a way that is consistent with the operator's business model.

A broader challenge is to keep pace with the rate of change that can be expected to accelerate. Other countries in the region are becoming increasingly sophisticated. Travellers are becoming increasingly demanding having experienced the best that the Internet has to offer in other areas.

6.3 Suggested Approaches

Key measures that are suggested include the following.

- Action** Conduct an audit of ecommerce use within Jamaica's Tourist industry. This should focus on use and benefits, but also obtain additional information including the cost of ecommerce facilities and difficulties encountered. Use the audit results in activities promoting use of the Internet by Jamaican Tourist operators.*
- Action** The Government of Jamaica should continue with its plans to assist in the marketing of Jamaican tourism businesses through exclusive sites such as the revised JRS facilities being developed. It should ensure that SMEs are effectively catered for as well as larger businesses.*
- Action** As part of marketing Jamaican Tourist activities abroad JAMPRO and the Jamaica Tourist Board should devote resources to identifying global tourism and travel portals and assist Jamaican companies to be listed on those sites. The focus should be upon encouraging the listing of innovative SMEs.*
- Action** Include fundamental and simple ecommerce development and maintenance within tourism industry training systems.*
- Action** Develop a network of ecommerce driven tourism industry venture incubators. Incubators should be located in the existing tourist districts and then extend into less developed areas.*
- Action** Support ecommerce use by new Tourism ventures.*
- Action** Support demonstration programs for non-English web site development. The Government of Jamaica should also purchase translation inputs from a Jamaican supplier for its own tourist related websites. This should assist with highlighting the relevance of this approach and developing a Jamaican capability to do it.*
- Action** Encourage the Jamaican Tourism industry to adopt the more flexible pricing strategies that are feasible with ecommerce as a means of raising*

capacity utilisation. Smaller businesses may need most assistance in this regard.

FEEDBACK SOUGHT

Are the actions suggested in this chapter appropriate? What other actions could be considered by the project team?

Chapter Seven

Music and Entertainment

The music and entertainment industry contributes significantly to growth and wellbeing in Jamaica. Not all of its contributions are revealed in easier to measure economic statistics. This sector is important in maintaining global interest in Jamaica and the culture of Jamaicans that spills over to commercial activities.

7.1 Music

The music industry is global in nature and has a number of key characteristics that need to be recognised:

- the global music consumer market is dominated by a number of particular regions — Europe and North America each account for around one third of total music sales, with Asia also accounting for a little under a quarter of the global sales of recorded music. The fastest growing markets, however, are located in the developing world;
- the industry has been subject to considerable volatility — the unpredictable nature of consumer tastes means that non-price factors such as fashion, herd behaviour, and experimentation have had a profound influence on the music market. Adapting to and channelling these influences has become a major focus of the leading firms in the music industry and an increasingly dominant influence on investment strategies; and
- the music industry has tended to become steadily more concentrated under the dominance of a small number of very large international firms with broad entertainment interests.

Through various oligopolistic practices these firms are able to earn the large rents needed to maintain their leadership role in the industry, and to generate the considerable financial resources which allow them to carry the risks and costs involved in identifying and developing artistic talent and marketing a risky final product with very large sunk costs.⁵⁷

Despite the financial dominance of the majors, the global industry still contains a plethora of smaller independent firms offering a diverse range of services and products:

- independent record companies have been able to survive often by specialising in market niches, although increasingly these companies have only been able to continue by establishing ‘alliances’ with the majors; and
- there also exists a highly complex system of sub-contracting on the production side among firms of different sizes. Most recording studios are independent and many producers sub-contract their services to the majors.

⁵⁷ See Towse 1999, 'Copyright and Economic Incentives: An Application to Performers' Rights in the Music Industry', *Kyklos*, vol. 52, no. 3, pp. 369-90 at 379; Vogel 1998, *Entertainment Industry Economics*, Cambridge University Press, Cambridge (MA), p. 147.

This continued role for large numbers of highly specialised firms explains the geographical clustering of the music business in a small number of key centres around the world. This reflects:

- the professional advantages that songwriters and musicians themselves can derive from being part of a closely knit community of talent; and
- the need for a readily available supply of specific assets and the advantages from having close communication where relations of trust have to be established (eg, between artist and producer).⁵⁸ Even for the largest companies, the presence of music centres such as London, Los Angeles and New York allow for close links to and familiarity with financial markets enabling a degree of intimacy to develop between creditor and borrower, which is necessary when large but inherently risky investment projects are involved.

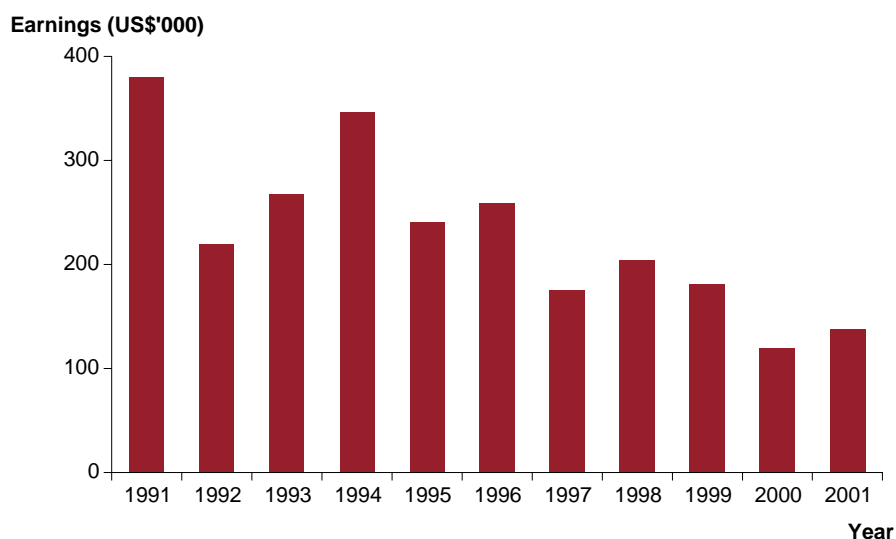
Arguably, a developing country such as Jamaica is better positioned to compete in the music industry than in many traditional industries. This is because:

- the basic raw material, such as talent to create new music, is readily available and entry costs, at least in the case of music, are not as prohibitive as in many industries; and
- despite the global image of the music industry, there remains a very strong regional dimension to musical tastes. This regionalisation of musical tastes points to potential markets for Jamaican music in other Caribbean countries.

Unfortunately, in recent years Jamaica has been unable to consistently commercialise its own music, and returns to Jamaica are on a long-run decline (see Figure 7.1). Given the oligopolistic nature of the industry this is not surprising as Jamaica does not have the large music businesses and financial structures necessary to invest significant capital into a sophisticated marketing and distribution machinery with a global reach.

Figure 7.1

EXPORT EARNINGS FROM SELECTED MUSIC FORMATS (US\$ '000)



Source: Planning Institute of Jamaica 2002, p. 16.2

⁵⁸ Fink 1989, *Inside the Music Business*, Schirmer Books, New York, p. 58.

Despite this pessimistic outlook, music offers a real hope of providing sustainable ecommerce in Jamaica:

“Caribbean entertainment and culture, I believe, has the strongest potential to be a large sustainable business on the Internet as it relates to the global village. It is in culture that the Caribbean has a sustainable comparative and competitive advantage. From music to dance, it is this area that the Caribbean can use to reach out to a global marketplace.”⁵⁹

Ecommerce offers the opportunity to bypass traditional oligopolistic supply chain barriers and make, market and distribute music directly to consumers. This therefore may address some of the criticisms directed at the Jamaican music industry.⁶⁰

A key criticism of the Jamaican music industry is that it has lacked the centralised support necessary to work with and against the oligopolistic global music industry; this is changing.

The Government of Jamaica has been active in seeking to create the institutions to support the Jamaican industry:

- the Jamaican Cabinet has given approval for Jamaica to accede to the WIPO Internet Treaties, the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT), which provides for the protection of copyright material over digital networks. Such clarification will provide additional certainty to the Jamaican music industry;⁶¹ and
- JAMPRO has developed a strategic plan for the industry, which involves the establishment of two new entities:
 - the Jamaica Music Commission — the Jamaica Music Commission is to be developed as a statutory non-commercial body operated on a partnership basis by a conglomeration of recognized organisations and the Government of Jamaica. Its focus will be on education and training, infrastructure, product development, marketing and financing within the entertainment industry;
 - the Music Development Foundation — the Foundation is to be established to finance activities such as the National School Music Instrument Programme, the National Band and Choir Competition, music business education and scholarships. It is proposed that revenue will be generated through the receipt of grants and donations, taxes levied on audio-visual and entertainment products, and various other ventures; and
 - the Jamaica Intellectual Property Office’s (JIPO’s) establishment demonstrates a commitment to the administrative framework to support the entertainment industry. We understand that JIPO will aim to expand the public education programme on intellectual property in primary schools and colleges.⁶²

⁵⁹ Chaplin 2001, 'Forecasting the Future of Caribbean Business and Trade: The Caribbean Commune Online', *CaribExchange TradeNet*, vol. 1, no. 1, pp. 18-9 at 18-9.

⁶⁰ See McKenzie *Jamaican Music Lacks Mainstream Support*, viewed 17 July 2002, <<http://ska.about.com/gi/dynamic/offsite.htm?site=http://www.jamaica%2Dgleaner.com/gleaner/20001105/ent/ent3.html>>.

⁶¹ *JIPO Intensifies Work on Patents and Designs Act*, 2002, Jamaican Observer Internet Edition, viewed 21 July 2002, <http://www.jamaicaobserver.com/news/html/20020712T200000-0500_28720_OBS_JIPO_INTENSIFIES_WORK_ON_PATENTS_AND_DESIGNS_ACT.asp>.

⁶² Ibid.

Action *JIPO should be active in providing an education programme on intellectual property in primary schools and colleges.*

This newfound support for international legal frameworks and domestic institutional structures has been reflected in private sector. For example, this is evidenced by a new regional anti-piracy campaign in the Caribbean, and the establishment of a national agency — Jamaica Association of Composers and Publishers (JACAP) — to monitor copyright violations and return revenues to the copyright owners.⁶³

For good or for bad, the Jamaican music industry is associated with reggae. As such, a reasonable objective is to ensure that ecommerce is used to promote reggae. There are a number of ways that this is being, and could better be, done:

- there are numerous sites, mostly hosted outside of Jamaica, that provide portals and value-added information about reggae; and
- Jamaican radio stations have proven to be ambassadors of Jamaican music over the Internet, and in some cases are based on a subscription model. Examples include IRIE FM (iriefm.net), the Radio Jamaica Group (radiojamaica.com) and until recently HOT 102 FM (www.homeviewjamaica.com/hot102).

There is always the hope of new technologies radically breaking down existing distribution networks for the financial benefit of artists. For example, in an African context, some commentators have suggested that:

“state-of-the-art technology could enable African musicians to be compensated automatically and transparently for the use of their music on the Internet. New technology from IBM has the potential to prevent access without payment, and to deliver instant payments to musicians for the online sale and performance of their music”.⁶⁴

The potential for such technologies is limited in the short term.

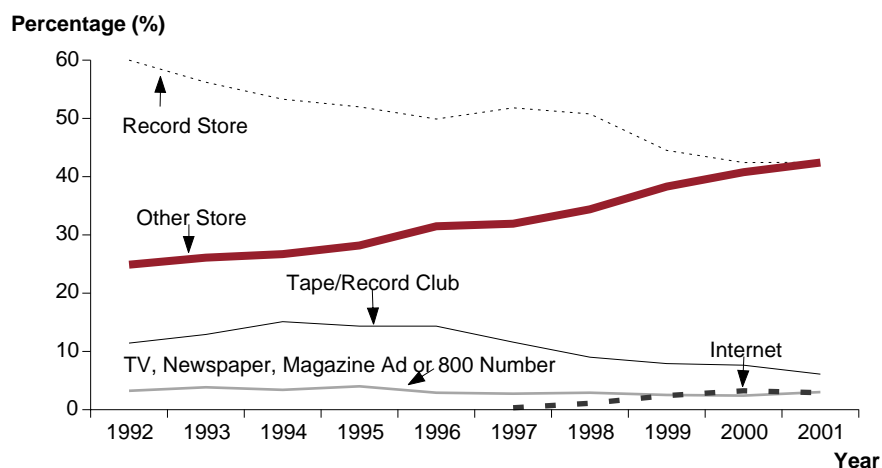
Even direct distribution of music over the Internet (ie, ordering an album and having it physically dispatched) is also unlikely to be a panacea at the present time. For example, as shown in Figure 7.2, only about three percent of all music purchased in the US was ordered using the Internet.

⁶³ See Young 2001, *Developments in the Entertainment Industry*, viewed 17 July 2002, <<http://www.mfg-law.com/dec2001-b.html>>.

⁶⁴ Cox *Developing the Music Industry in Africa: A Resource for Economic Growth - Experts Look at the Nashville Model*, viewed 17 July 2002, <<http://lnweb18.worldbank.org/essd/essd.nsf/All/CA8F5DDDF16D1D00485256923006AE103>>.

Figure 7.2

AVENUES OF MUSIC PURCHASE BY US RESIDENTS (%)



Source: Recording Industry Association of America 2002, p. 1

Some comparison may be made by referring to the Internet capabilities of members of the US National Association of Recording Merchandisers.⁶⁵ In the Association's most recent survey they found that:

- almost 85 percent of respondents had a web site, primarily to promote and sell entertainment products, promote companies and provide information to consumers and investors;
- online, CD sales are increasing, but product diversification is carrying over to the online retail arena with increasing number of DVDs and videos being sold;
- most of the respondents offer digital downloads for both promotional and sale purposes, although sales of digital downloads were almost too small to measure;
- reflecting efforts to strengthen their customer service activities, more than 80 percent of companies answer inquiries within a day, and over half of click-and-mortar sellers accept returns at their physical stores;
- email to customers, affiliate relationships and advertising are the key ingredients of most companies' Internet marketing strategies; and
- most hope to be profitable on the Internet by the end of the year or in the next 18 months.⁶⁶

These US purchasing and sale characteristics suggest that in the short to medium term there will be little benefit in individual artists or businesses. As a result, there may be some scope for a public-private partnership to provide for digital payment and delivery of music over the Internet.

Action *Explore the potential for a public-private partnership to assist individual artists to make their work available digitally. This may be complimented by a portal site bringing together information on independent Jamaican artists and information as to where and how to purchase their works.*

⁶⁵ National Association of Recording Merchandisers 2001, 2000 Annual Survey, National Association of Recording Merchandisers, Marlton.

⁶⁶ Ibid., p. 7.

The reality, however, is that the major electronic distribution hubs are likely to be based overseas. This is unlikely to be overcome, but it therefore creates a role for the Government of Jamaica to assist independent artists in having their music available for purchase through these sites.

Action *Following discussions with major online music distributors, coordinate and facilitate the uptake of Jamaican music on these sites.*

It is on the production side that ecommerce is particularly relevant:

- with recording of music is increasingly digitised, there is an increasing demand for high bandwidth connections to transmit in production and final works; and
- Internet directories of musicians, production companies, and so on will assist people purchasing such services. The Jamaica Film, Music and Entertainment Commission currently publishes a paper directory for the Jamaican film, music and entertainment sectors,⁶⁷ and a similar web directory is made available through Invest Jamaica.⁶⁸ A concern is that the web directory is very incomplete and out of date in a number of respects (eg, it does not list JIPO almost six months after its formation).

Action *A single directory of firms operating in the Jamaican music industry needs to be maintained reliably on the Internet.*

7.2 Film

The film industry (broadly defined to include the filming of television, commercial, music video, still shots, etc) is important for Jamaica (see Table 7.1)

Table 7.1

PROJECTS ADMINISTERED BY JAMPRO'S FILM & MUSIC DIVISION (2001)

| Project Type | Number | Earnings (J\$ million) | Employment |
|--------------------------|--------|------------------------|------------|
| Feature film | 3 | 22.3 | 1,188 |
| Television production | 23 | 33.3 | 274 |
| Television commercials | 5 | 19.3 | 475 |
| Music videos | 10 | 27.7 | 169 |
| Documentary | 13 | 8 | 81 |
| Still shoot | 22 | 18 | 48 |
| Entertainment production | 3 | 12.2 | 170 |
| Television series | 1 | 45 | 532 |
| Short film | 1 | 0 | 1 |
| TOTAL | 81 | 185.8 | 2,938 |

Source: Planning Institute of Jamaica 2002, p. 16.3

⁶⁷ Jamaica Film Music & Entertainment Commission 2001, *Sounds of Jamaica: Music Industry Directory*, JAMPRO, Kingston.

⁶⁸ See Invest Jamaica 2002, viewed 17 July 2002, <<http://www.investjamaica.com/industries/film-music/index.html>>. Although similar directories are provided by private sector organisations over the Internet (although these tend to rely on organisations self-identifying themselves to the sites — see *Reggae Fusion Jamaica: The Encyclopedia of Jamaica's Music Industry*, Don-Getz Limited, viewed 15 July 2002, <<http://www.reggaefusion.com/Resources/Organs.html>>).

To undertake these tasks the Government of Jamaica and local industry has developed a comprehensive network of support services and skills to meet the needs of the international industry. Greatest demand areas include:

- sound stages;
- mobile film production units;
- make up and wardrobe supplies;
- underwater services and equipment;
- set design and construction services;
- editing and post production facilities;
- props suppliers, (eg, marine and land craft);
- marketing and distribution; and
- processing laboratory.

The Government of Jamaica provides attractive support and incentives to encourage the development of the film industry. For example:

- the Entertainment Division of the Ministry of Tourism and Sport has developed and proposed an entertainment sector policy to facilitate the development of a globally viable Jamaican entertainment industry and the preservation and enhancement of the creative expression of the Jamaican people;
- profits from overseas release of film and video are tax free for nine years when the production company is incorporated in Jamaica;
- equipment, machinery and material for building studios and support facilities are duty and tax free; and
- dividends paid to resident shareholders with investments in film companies are tax free, and not subject to withholding tax; non-resident shareholders earn dividends taxed according to the provisions of the Double Taxation Treaty with their country.

It is on the production side that ecommerce is particularly relevant:

- the Internet is already being used as a means for advertising:
 - possible shooting locations — the Invest Jamaica site has some 300 location photographs for production planners⁶⁹ to view and provides additional information to facilitate filming;
 - service providers — the Invest Jamaica web site also has information regarding production companies and managers;⁷⁰ and
- with recording of both music and film increasingly digitised (eg, the recent Star Wars Episode Two was filmed digitally rather than on film) there is an increasing demand for high bandwidth connections to transmit in production and final works.

Support for the Jamaican film industry already makes extensive use of the Internet to facilitate inward investment. The next step may be to automate a number of bureaucratic processes online (eg, the special licence application for production), but the benefits will be marginal.

⁶⁹ See Invest Jamaica 2002, viewed 17 July 2002, <<http://www.investjamaica.com/industries/film-music/index.html>>.

⁷⁰ See Ibid.

Rather than special ecommerce policies for the film industry, the film industry is likely to be a beneficiary of a series of broader ecommerce-related actions that will facilitate the availability of increased bandwidth at reasonable prices.

FEEDBACK SOUGHT

This chapter has proposed relatively few sector-specific ecommerce actions, instead relying on the improved uptake of ecommerce more generally. Is this strategy appropriate? What other actions could be considered?

D

Part D

Conclusion

Chapter Eight

Conclusion

The Jamaican ecommerce story is a positive one given Jamaica's developmental position:

- there is significant interest in technology amongst the Jamaican community, including with respect to ecommerce. That said, there are pockets of traditionalism that have been slow to embrace online and ecommerce-related technologies;
- Jamaica has a fledgling ecommerce and IT sector;
- in general Jamaica has a well respected regulatory regime which is seen to have made significant reform progress over recent years;
- a number of recent actual and mooted legislative changes have acknowledged the need to amend legislation to make Acts compatible with an Internet enabled world (eg, copyright); and
- the expatriate Jamaican community has clearly embraced ecommerce, as evidenced by the number of Jamaica-related web site originated and hosted overseas, and hence there is a natural market for ecommerce sales.

The last point exposes the potential weakness with respect to Jamaica's current ecommerce position (particularly in the tourism and music and entertainment sectors). While the overall picture is that there is evidence of a vibrant ecommerce presence *about* Jamaica, much of this activity is not conducted in Jamaica by Jamaicans. Unless this pattern is addressed there is a danger that ecommerce will hollow out Jamaican industry, shifting higher value knowledge based activities offshore, leaving only a shell of lower value activities in Jamaica. Jamaica would still probably benefit from the development of ecommerce in this scenario, but it would be by less than its full potential given adoption of an effective strategy to develop domestic capabilities.

The story has the potential to be significantly better with a number of targeted legislative changes and reform pushes in certain areas:

- access to reasonably priced ecommerce infrastructure — computers and telephone lines — is a key barrier to ecommerce adoption. To a significant degree this barrier is a function of income levels;
- the financial sector's reluctance to support interchangeable consumer payment methods and online business facilities has retarded the development of indigenous ecommerce businesses. The Government of Jamaica should use its purchasing power to provide an incentive for reform in this sector;
- legal uncertainties about ecommerce transactions — digital signatures, privacy laws, and so on — have been a barrier to investment. These uncertainties can be addressed relatively easily; and
- access to capital is an issue for Jamaica generally, but particularly so for small ecommerce startups. This can be overcome at low cost, and by facilitating partnering, by the introduction of PEFs.

Given these observations, Table 8.1 lists those actions that should be undertaken as a priority, and which should be able to be commenced and/or implemented relatively quickly.

As a guide, commitments should be made to undertake the tasks in Table 8.1 within three months of the report's delivery, and steps towards their implementation should also begin within three months (although it is acknowledged that it may take some time for various tasks to be fully implemented).

FEEDBACK SOUGHT *Is the proposed implementation timeframe for high priority tasks reasonable?*

Table 8.1

HIGH PRIORITY TASKS

| Task | Discussed in ... | Nature of Impact |
|---|-------------------------|--|
| <i>The Government of Jamaica and business should continue with its current range of measures designed to promote widespread access to computers and the Internet to all sections of Jamaican society.</i> | section 3.1 | Advance ICT penetration in Jamaica to the point where the Internet becomes ubiquitous which is a prerequisite for further rapid ecommerce growth. |
| <i>The Government of Jamaica and business should continue to place emphasis upon facilitating the acquisition of IT skills by a larger number of Jamaicans.</i> | section 3.2 | Removal of an impediment to more widespread ecommerce use. |
| <i>The Government of Jamaica should seek to foster greater private equity finance in ecommerce ventures by introducing a Pooled Ecommerce Funds.</i> | section 3.3 | This will provide improved capital availability for ecommerce projects, and a framework for fostering equity partnerships |
| <i>The Government of Jamaica should develop a broader network of support to incubate companies making the transition to ecommerce and online business models. This should build upon models that are already proving to be successful in Jamaica, drawing linkages between business, leading educational institutions and government support.</i> | section 3.3 | This will facilitate more rapid transition towards the use of ecommerce and online technologies by Jamaican businesses. It will also help to ensure a sharing of knowledge reducing the risk of failure. |
| <i>At least as a transitional measure, OUR should be empowered and encouraged to consider regulating broadband lines and associated services on a cost basis.</i> | section 3.4 | The result will be reduced prices, and possibly increased quality, for vital high bandwidth services |
| <i>Legislation should be introduced to allow the adoption of Internet telephony.</i> | section 3.4 | Reduced call costs will encourage the uptake of PCs and the Internet |
| <i>Stringent 'quality of service' obligations should be imposed upon C&WJ.</i> | section 3.4 | Improved telecommunications quality (ie, reliability) is a key to having a sustainable ecommerce sector. |
| <i>The general reformist thrust of the recent Jamaica Telecommunications Advisory Council's recommendations should be supported with respect to universal service obligations, scope for advancing telecommunications reform by renegotiating the 1999 agreement between the Government of Jamaica and C&WJ.</i> | section 3.4 | Adoption of these recommendations would provide better access to fixed phone lines of higher reliability, and the timeframe and nature of ongoing reform would be enhanced. |
| <i>Any legal uncertainty regarding ecommerce should be addressed by passing legislation, drawing upon best practice international model laws, to address matters such as: authentication; evidentiary requirements; privacy; digital signatures; and any related issues.</i> | section 3.5 | Reduced legal uncertainty increases the likelihood that firms will invest in ecommerce distribution channels. |
| <i>The FTC and OUR should be merged to provide for a single competition and economic regulation authority.</i> | section 3.6 | A merger of the two regulators will create analytical synergies, provide skill complementarities and reduce the potential for jurisdictional uncertainty. |
| <i>The merged FTC/OUR should be an independent body, with any regulations having the status of disallowable instruments.</i> | section 3.6 | Political independence promotes certainty for investors. |

| Task | Discussed in ... | Nature of Impact |
|---|------------------|--|
| <i>The merged FTC/OUR should focus its competition enforcement efforts on persuasion with the threat of court sanction as a fall-back position.</i> | section 3.6 | Enforcement of competition laws is an important element in an ecommerce regulatory framework. This is a response to the decision in <i>Jamaica Stock Exchange v Fair Trading Commission</i> which undermined the effectiveness of the enforcement of Jamaica's competition laws. |
| <i>The SMA should be merged with the BC.</i> | section 3.6 | Merging the licensing and spectrum allocation functions should provide stronger institutional capability and a streamlined regulatory process |
| <i>The Government of Jamaica should progress widespread adoption of egovernment as recommended by Booz Allen Hamilton.</i> | section 3.7 | While a longer term project, commencement of reforms to improve government delivery of electronic services/ecommerce is vital in leading the uptake of ecommerce generally. |
| <i>The Government of Jamaica should use its purchasing power to encourage the financial sector to provide consumers with globally convertible credit cards and online merchant facilities.</i> | Chapter Five | This is a vital reform that will encourage broader availability and use of ecommerce. |
| <i>Conduct an audit of ecommerce use within Jamaica's Tourist industry. This should focus on use and benefits, but also obtain additional information including the cost of ecommerce facilities and difficulties encountered. Use the audit results in activities promoting use of the Internet by Jamaican Tourist operators.</i> | section 6.3 | More information is needed about ecommerce capabilities and barriers in individual tourist facilities. |
| <i>Include fundamental and simple ecommerce development and maintenance within tourism industry training systems.</i> | section 6.3 | This is a natural extension to existing programmes that will support the rollout of ecommerce to SMEs in the tourism industry |
| <i>As part of marketing Jamaican Tourist activities abroad JAMPRO and the Jamaica Tourist Board should devote resources to identifying global Tourism and travel portals and assist Jamaican companies to be listed on those sites. The focus should be upon encouraging the listing of innovative SMEs.</i> | section 6.3 | The global tourism industry is quickly coalescing around a number of online providers and portals. Jamaican tourism providers (particularly SMEs) need to be able to offer services through these online providers, or miss being bypassed. |
| <i>The Government of Jamaica should continue with its plans to assist in the marketing of Jamaican tourism businesses through exclusive sites such as the revised JRS facilities being developed. It should ensure that SMEs are effectively catered for as well as larger businesses.</i> | section 6.3 | |
| <i>A single directory of firms operating in the Jamaican music industry needs to be maintained reliably on the Internet.</i> | section 7.1 | The importance of the online marketing the capabilities of the Jamaican music industry is already acknowledged, but is undertaken in a less than comprehensive manner. this needs correction. |

Source: The Allen Consulting Group

Table 8.2 lists those actions that should be undertaken once the high priority tasks have been undertaken.

As a guide, it is reasonable to suggest that steps towards the implementation of the tasks in Table 8.2 should be well underway within nine months (although it is acknowledged that it may take some time for various tasks to be fully implemented).

FEEDBACK SOUGHT

Is the proposed implementation timeframe for medium term tasks reasonable?

Table 8.2

MEDIUM TERM TASKS

| Task | Discussed in ... | Nature of Impact |
|--|-------------------------|---|
| <i>The Government of Jamaica should develop means of encouraging the development of emerging ecommerce enabled businesses in the crucial post incubation period. JAMPRO should coordinate actions with incubators to showcase emerging businesses to international trading partners and potential investors, as well as in emerging Internet marketplaces.</i> | section 3.3 | Raise the rate of growth of new ecommerce businesses and/or reduce the rate that fail. |
| <i>The Government of Jamaica should consider removing the need to hold a licence to operate as an ISP, or revoke ISP licences that are not being actively used for more than six months.</i> | section 3.4 | Current licensing arrangements send mixed signals to ISP investors and hence may act as an informational barrier to entry. |
| <i>The OUR and the Government of Jamaica should mandate that mobile providers abide by the calling party pays (CPP) principle.</i> | section 3.4 | This reform will reduce duplicative expenditure on mobile handsets, and hence will facilitate the adoption of the next generation of high speed Internet capable handsets that will better support ecommerce applications. |
| <i>The Government of Jamaica should seek to encourage the uptake of mobile dial-up payment services by the banking sector, telecommunications companies and business groups.</i> | section 3.4 | Given the growth in mobile penetration, mobile ecommerce is a natural fit for Jamaica. Mobile ecommerce may overcome the slow adoption of traditional electronic payment systems by the banks. |
| <i>The Government of Jamaica should explore the potential for a universal service obligation fund for mobile telecommunications providers.</i> | section 3.4 | Such a reform will advance the widespread uptake of mobile communications, and further advance the uptake of mobile ecommerce. |
| <i>Make it easier for companies to find Jamaican IT companies and learn about their market offerings. Encourage co-operation in the development and maintenance of a private sector ICT/e-commerce portal site. This could include working together to improve the positioning of an existing private sector site.</i> | section 4.3 | Enhances the rate of growth of IT companies and should reduce the rate of failure. |
| <i>Obtain greater Jamaican development leverage from government purchasing of IT inputs.</i> | section 4.3 | As a major purchaser of IT there is scope for industry development to be explicitly considered (in a WTO compliant manner) when making IT purchasing decisions |
| <i>Develop a network of ecommerce driven tourism industry venture incubators. Incubators should be located in the existing tourist districts and then extend into less developed areas.</i> | section 6.3 | Should accelerate the rate of adoption of ecommerce by tourist businesses and reduce the rate of failure. |
| <i>Support demonstration programs for non-English web site development. The Government of Jamaica should also purchase translation inputs from a Jamaican supplier for its own tourist related websites. This should assist with highlighting the relevance of this approach and developing a Jamaican capability to do it.</i> | section 6.3 | Could accelerate business development and reduce vulnerability to volatility. May raise costs. Could enhance Jamaica's export potential for web services in the region if the other countries are slow to adopt use of non-English languages. |
| <i>Encourage the Jamaican Tourism industry to adopt the more flexible pricing strategies that are feasible with ecommerce as a means of raising capacity utilisation. Smaller businesses may need most assistance in this regard.</i> | section 6.3 | A clear trend in ecommerce is to offer flexible services that can be bundled to match the comer's tastes. This invariably means that suppliers need to be able to price individual components of their service offerings, rather than necessarily offering an 'all in one' package. |
| <i>JIPO should be active in providing an education programme on intellectual property in primary schools and colleges.</i> | section 7.1 | Intellectual property is a key concept underpinning ecommerce. However, it will probably take a generation, supported by community education, before it is really understood and embraced. |
| <i>Explore the potential for a public-private partnership to assist individual artists to make their work available digitally. This may be complimented by a portal site bringing together information on independent Jamaican artists and information as to where and how to purchase their works.</i> | section 7.1 | Revenue raising electronic distribution of music is currently beyond the technical and financial means of smaller and independent artists. There may be scope to undertake a joint public/private venture to reduce the initial barriers to the use of this distribution method. |

Source: The Allen Consulting Group

Table 8.3 lists those actions that are longer term in nature. In some cases they could be started relatively quickly, although their long term nature means that their impact would only be felt some time into the future.

FEEDBACK SOUGHT

Is the proposed implementation timeframe for longer term tasks reasonable?

Table 8.3

LONGER TERM TASKS

| Task | Discussed in ... | Nature of Impact |
|--|-------------------------|---|
| <i>The Government of Jamaica should evaluate the balance of supply and demand in ICT skills. This may involve original data collection. This may be an appropriate Task for CITO with the support of the Education Ministry and business..</i> | section 3.2 | Ensure better targeting of resources to develop ICT skills that are needed. |
| <i>Review progress against key performance indicators (KPIs) within three years and make changes as necessary to the policy mix and strategic approach.</i> | section 4.3 | Ensure that policies are effective. |
| <i>Continue to implement the Five Year Strategic Information Technology Plan For Jamaica.</i> | section 4.3 | |
| <i>Raise knowledge about the IT industry.</i> | section 4.3 | Raise awareness about opportunities. |
| <i>Expand incubation of IT ecommerce start up companies.</i> | section 4.3 | Accelerate development of ecommerce businesses and reduce risks of failure. |
| <i>Engage in post incubation support for emerging IT companies.</i> | section 4.3 | As above. |
| <i>Raise opportunities for partnership building within Jamaica and abroad. A key limitation has been lack of understanding in depth about the actual Jamaican It industry as it stands.</i> | section 4.3 | Accelerate development of ecommerce businesses and reduce risks of failure. |
| <i>Promote awareness about Jamaican IT/ecommerce success stories and interesting new ventures.</i> | section 4.3 | Increase interest of potential trade partners and investors. |
| <i>Support ecommerce use by new Tourism ventures.</i> | section 6.3 | Accelerate the use of ecommerce by smaller companies. |

Source: The Allen Consulting Group

E

Part E

Appendices

*Appendix A***Abbreviations**

| | |
|---------|--|
| ACCC | Australian Competition and Consumer Commission |
| ATM | automatic teller machine |
| BC | Broadcasting Commission |
| C&WJ | Cable and Wireless Jamaica |
| CAD/CAM | computer aided design/computer aided manufacture |
| CAP | Community Access Point |
| CD | compact disc |
| CITO | Central Information Technology Office |
| DVD | digital versatile disc |
| FTC | Fair Trading Commission |
| ICT | information, communication and technology |
| ISP | Internet service provider |
| IT | information technology |
| JACAP | Jamaica Association of Composers and Publishers |
| JIPO | Jamaica Intellectual Property Office |
| JTB | Jamaica Tourist Board |
| KPI | key performance indicator |
| MCT | Ministry for Commerce and Technology |
| NAP | Network Access Points |
| OECD | Organisation for Economic Co-operation and Development |
| OUR | Office of Utilities Regulation |
| PC | personal computer |
| PEF | pooled ecommerce fund |
| SMA | Spectrum Management Authority |
| SME | small and medium-sized enterprise |
| TDPCo | Tourism Product Development Company |
| TIC | Technology Innovation Centre |

| | |
|----------|---|
| TRIPS | Agreement on Trade Related Intellectual Property Rights |
| UNCITRAL | United Nations Commission on International Trade Law |
| US | United States |
| WCT | WIPO Copyright Treaty |
| WIPO | World Intellectual Property Organization |
| WPPT | WIPO Performances and Phonograms Treaty |
| WTO | World Trade Organization |

Appendix B

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