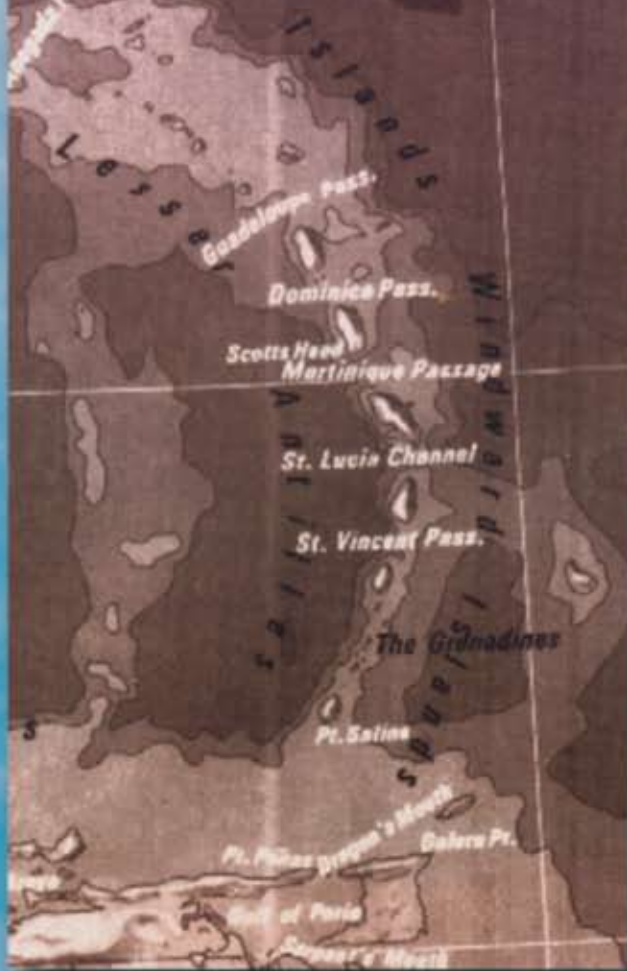


# JOURNAL OF EASTERN CARIBBEAN STUDIES

Vol. 35 No.1 March 2010



## Editorial Staff

Editor-in-Chief	Prof. Andrew Downes
Managing Editor	Dr. Don Marshall
Publication Assistant	Mrs. Deidre Carrington-Skeete

## Editorial Advisory Board

Prof.	Sir Hilary Beckles	UWI, Cave Hill Campus, Barbados
Prof.	Jacqueline Braveboy-Wagner	City College of New York, USA
Prof.	Sir Howard Fergus	UWI, School of Continuing Studies, Montserrat
Dr.	Len Ishmael	Organisation of Eastern Caribbean States, St. Lucia
Prof.	Simon Jones-Hendrickson	University of the Virgin Islands, St. Thomas, USVI
Prof.	Andy Knight	University of Alberta, Canada
Sir	Alister McIntyre	Former Vice Chancellor, UWI, Jamaica
Prof.	Bishnodat Persaud	Former Director, UWI, Centre for Environment Development, Jamaica
Prof.	Robert Potter	University of Reading, United Kingdom
Prof.	Rhoda Reddock	UWI, Centre for Gender and Development Studies, Trinidad & Tobago
Prof.	Selwyn Ryan	SALISES, UWI, St. Augustine Campus, Trinidad & Tobago
Sir	Dwight Venner	Eastern Caribbean Central Bank, St. Kitts and Nevis
Prof.	Delisle Worrell	International Monetary Fund, USA

## Editorial Committee

Prof.	Eudine Barriteau	Centre for Gender and Development Studies, Cave Hill Campus, Barbados
Mrs.	Cynthia Barrow-Giles	Faculty of Social Sciences, UWI, Cave Hill Campus, Barbados
Dr.	Curwen Best	Faculty of Humanities and Education, UWI, Cave Hill Campus, Barbados
Miss	Beverly Hinds	Documentalist, SALISES, UWI, Cave Hill Campus, Barbados
Prof.	Nlandu Mamingi	Faculty of Social Sciences, UWI, Cave Hill Campus, Barbados
Mr.	Ivan Waterman	Consultant, Barbados

The **Journal of Eastern Caribbean Studies (JECS)** is the leading social science journal covering the Eastern Caribbean area. It is published quarterly by the Sir Arthur Lewis Institute of Social and Economic Studies, University of the West Indies, Cave Hill Campus, in March, June, September and December. Established in 1975 as the **Bulletin of Eastern Caribbean Affairs**, it was upgraded to a full peer review academic journal from Volume 22, 1997. The **JECS** is concerned with analytical commentaries on political, social, economic, business and environmental developments in the Caribbean with special emphasis on the Eastern Caribbean and small states.

<b>Subscription Rates are:</b>	Barbados	BDS\$96.00	per volume	BDS\$24.00	per issue
	Caribbean	US\$68.00	per volume	US\$17.00	per issue
	International	US\$88.00	per volume	US\$22.00	per issue

## Air Mail by special arrangement

All enquiries should be directed to *Journal of Eastern Caribbean Studies*, Sir Arthur Lewis Institute of Social and Economic Studies, University of the West Indies, P.O. Box 64, Bridgetown, Barbados: Tel: (246) 417-4478; Fax (246) 424-7291; Email: [jecs@cavehill.uwi.edu](mailto:jecs@cavehill.uwi.edu). Website: <http://www.cavehill.uwi.edu/salises>

Cover design by Selwyn Cambridge.

©2010 All rights reserved.

Sir Arthur Lewis Institute of Social and Economic Studies, UWI, Cave Hill Campus, Barbados

ISSN: 1028-8813

# CONTENTS

<b>Articles</b>	<b>Page</b>
Real Pirates of the Caribbean: Socio-psychological Traits, the Environment, Personal Ethics and the Propensity for Digital Piracy in Barbados <i>Troy Lorde, Dwayne Devonish and Asokore Beckles</i>	1
Planning for Tourism Resilience in the Caribbean <i>Carolyn Hayle, Diaram Ramjee Singh and Allan Wright</i>	36
Serious Crime in Trinidad and Tobago: An Empirical Analysis Using Time-Series Data between 1970-2007 <i>Sandra Sookram, Maukesh Basdeo, Kerry Sumesar-Rai &amp; George Saridakis</i>	60
<b>Commentary</b>	
Why do Prices Rise in Barbados? A Survey of Business Perceptions <i>Roland Craigwell and Winston Moore</i>	76
<b>Review</b>	
Corporate Culture in the Caribbean: A History of Goddard Enterprises Limited <i>Hilbourne A. Watson</i>	84
<b>Contributors</b>	98
<b>Announcement and Call for Papers – Bildner Center for Western Hemisphere Studies Cuba Project</b>	100



## Real Pirates of the Caribbean: Socio-psychological Traits, the Environment, Personal Ethics and the Propensity for Digital Piracy in Barbados

*Troy Lorde\*, Dwayne Devonish\* and Asokore Beckles\*\**

*\*University of the West Indies, Cave Hill Campus, BARBADOS*

*\*\*Barbados Statistical Department, BARBADOS*

### **Abstract**

The objective of this paper is to determine the factors that influence the propensity for digital piracy in Barbados. Based on a sample of 390 Barbadian residents, the study found that attitudes and beliefs about piracy respectively, a facilitating environment, relativism, and the age of residents help to predict the digital piracy intentions of Barbadians. While the level of education was also a significant factor, it behaved contrary to our expectations. Specifically, we found that individuals with higher levels of education have higher relative intentions to pirate, a result that appears to be due to the moderating influence of age on the level of education. Taken together, our findings suggest that policies for the prevention and control of digital piracy in Barbados may have limited impact if they ignore nuances related to the environment, and the personal ethics, socio-psychological traits, and age of residents.

**Keywords:** digital piracy, intellectual property, crime

## Introduction

The 'new economy' is just over 10 years old. Most developed countries have already transitioned, and many developing countries are in the state of transitioning from a state of affairs where physical assets like plant, equipment and real estate were the most important factors to wealth generation, to another in which knowledge and information are the most important assets, and economies are increasingly service-sector driven. Arising from these profound economic and technological changes, the protection of intellectual property has received increasing attention. In the main, this attention has focussed on violations of intellectual property rights, particularly software piracy, which has been identified as a major problem facing the software industry (Lau, 2003).

Although software piracy has received the most interest, a newer form of piracy has started to take the spotlight (Bhattacharjee *et al*, 2003). Digital piracy has been defined as the illegal copying/downloading of copyrighted software and media files (Al-Rafee, 2002; Al-Rafee and Cronan, 2006). The act of committing digital piracy includes a number of related practices: softlifting (the unauthorised copying of digital media for personal use); counterfeiting (the sale of unauthorised copies); rentals; internet piracy; and hard disk loading (Husted, 2000). Internet piracy has advanced from simply uploading, downloading and sharing copyrighted files, to streaming. This is a practice where individuals host internet websites which illegally make copyrighted digital content available for other individuals to watch video or listen to music immediately without having to transfer the full copy of that content to their hard drives. Hard disk loading is the installation of software without permission from the software developer onto the hard disk drives of personal computers by retailers to encourage the sale of hardware (Traphagan and Griffith, 1998).

Losses due to piracy have been staggering in their magnitudes. The Institute for Policy Innovation (IPI) estimates that each year copyright piracy of motion pictures, sound recordings, business and entertainment software and video games costs the United States (US) economy \$58 billion in total output, costs American workers 373,375 jobs and \$2.6 billion in earnings, and costs various levels of the US government \$2.6 billion in tax revenue (IPI, 2007). On a global basis, the Motion Picture Association of America

(MPAA) estimates that piracy costs the worldwide motion picture industry \$18.2 billion in 2005, approximately 40 percent due to internet piracy (MPAA, 2005). Revenues lost worldwide from software piracy were valued at \$47.8 billion in 2007 (Business Software Alliance (BSA), 2008).

Efforts to combat piracy have revolved mainly around two methods: preventives and deterrents. Preventives impede the act of piracy by making it very hard to accomplish; the idea is that pirates would have to expend so much effort that it will wear them down and eventually they will not want to do it. Deterrents on the other hand, use the threat of undesirable consequences, usually legal sanctions, to prevent piracy (Gopal and Sanders, 1997). As evident from estimates which indicate that the worldwide software piracy rate rose three percentage points, up from 35 percent in 2006 to 38 percent in 2007 (BSA, 2008), the aforementioned types of strategies appear to be having limited success.

As a complement to preventives and deterrents, knowing what influences individuals to pirate could offer another path towards reducing its incidence. This argument is important in light of findings from several studies which suggest that individuals do not view piracy as a crime (Im and Van Epps, 1991; Reid and Thompson, 1992). Moreover, the wide disparities in piracy rates around the world<sup>1</sup> imply that measures to combat piracy which do not take into account the different backgrounds of countries within which piracy occurs will not yield the desired outcomes.

Within this context, Marron and Steel (2000), among others, have argued that while an individual's decision to pirate software is expected to be partly determined by economic variables such as income, there are perhaps other influences to individual behaviour that are not controlled by traditional socioeconomic variables. For example, Husted (2000) examines the impact of natural culture on software piracy, finding that software piracy across countries is significantly correlated with individualism. Al-Rafee and Cronan (2006) suggest that an individual's attitude towards digital piracy is influenced by their cognitive and active beliefs, subjective norms and Machiavellianism.

---

<sup>1</sup> Software piracy rates range from a high of 93 percent in Armenia to a low of 20 percent in the United States (BSA, 2008); and video piracy rates range from a high of 90 percent in Russia to a low of seven percent in the United States (MPAA, 2005).

It has also been argued that intellectual property protection in less developed countries tends to be shorter in duration, less comprehensive, and much less vigorously enforced (Richardson and Gaisford, 1996). Richardson and Gaisford demonstrate that as less developed countries are asked to comply with higher, global standards, they put less effort into enforcement. This finding is supported by the BSA who report that piracy is growing fastest in emerging economies (BSA, 2008).

In Barbados, the issue of digital piracy has become more prevalent in recent years, highlighted by the increasing number of articles in the press (see Table 1). Another likely cause for the growing awareness appears to stem from the fact that piracy has also had increasingly adverse effects on local artistes and producers. Local artistes have also helped to highlight the issue through their intense lobbying of the Government to step up its efforts in fighting piracy.

Incidences of digital piracy in Barbados typically come to the fore during the summer months when the annual Crop Over festival takes place. During this period, thousands of bootleg CDs containing calypso music produced and recorded by local artistes for the festival are sold, particularly in the capital, Bridgetown. The rental of bootleg DVDs and video cassette tapes by several rental establishments across the country is also another prevalent form of digital piracy.

Eliminating or significantly reducing the rate of digital piracy in Barbados is important for several reasons. It would permit local creators and innovators of digital products to reap the financial rewards of their efforts and also allow them to be the sole determinants of the commercial and public use of their work, thereby safeguarding their economic rights; aid in the development of the country's nascent digital industries, particularly the recording industry; provide local producers a better platform from which to access the global market; enhance the preservation of local culture and heritage; protect consumers from purchasing inferior and uncertified products; and, foster local economic growth and development.

**Table 1: Piracy in the Print Media in Barbados**

Article	Date Published
Anti-piracy workshop	12-May-05
Progress made in piracy fight	03-Jun-05
No Bag for the crown this year	07-Jun-05
Editor's Diary: Caught in the 'mix' of things	21-Jun-05
Piracy, a worldwide problem	25-Jun-05
Grynnner lights up Hit Parade	26-Jun-05
Pirates a Hit	20-Jul-05
Theatre boss hails video swoop	24-Jul-05
Pirates strike again	09-Aug-05
DVD Dilemma	09-Aug-05
'Protect' cricket products	16-Nov-05
Pirates' Dream	03-Jan-06
Piracy Net	03-Feb-06
Warrant for Walrond	14-Feb-06
T&T man jailed for music piracy	17-Mar-06
Time to clamp down on piracy	04-May-06
Jamaica to tackle piracy problems	08-Jun-06
Two plead guilty to net piracy	10-Jun-06
Copyright laws 'being left behind'	26-Jul-06
Net cause of fall-off in CD sales	29-Jan-07
Creative sector 'falling behind'	23-May-07
Producers off-beat!	20-Jul-07
Bag full of ideas	10-Aug-07
Are artistes feeling pain as pirates take profits?	01-Oct-07
Heat is On	10-Oct-07
Hunt down the pirates	24-Jul-08
Over 4,000 pirated discs destroyed	17-Oct-08
Let's get the music pirates	17-Nov-08
Move to protect digital works	14-Dec-08
Mean	3.6 articles/year

**Source:** [www.nationnews.com](http://www.nationnews.com)

To the best of the authors' knowledge, no formal studies on digital piracy in any of its forms have been conducted for Barbados, indeed, the entire Caribbean region.<sup>2</sup> Against this background, the current study will investigate digital piracy in Barbados to help fill this gap. Specifically, the purpose is to identify factors which may influence the decision of Barbadian residents to pirate digital media. In this research, digital piracy is defined as: the distribution, purchase, copying or downloading, of copyrighted digital material which includes but is not limited to software (such as Microsoft Office), music, video, or other digital items (such as MP3s and movies). The study explores whether residents' attitudes and beliefs about piracy, the environment, their personal ethics, age and socio-economic status can explain the propensity for digital piracy in Barbados. Results indicate that attitudes and beliefs about piracy respectively, a facilitating environment, relativism, and the age of residents are significant precursors of Barbadian's intention to commit digital piracy. Consequently, strategies to prevent or reduce digital piracy in Barbados, such as educational campaigns, expansion of media coverage when pirates are arrested and/or prosecuted, should focus on these factors.

The paper proceeds accordingly. Section 2 reviews the current literature on digital piracy. Section 3 presents the theoretical foundation of our research model. Section 4 describes the research methodology. Section 5 presents the results. Section 6 discusses the results and their implications. Section 7 provides some concluding remarks.

## Literature Review

Researchers have attempted to investigate the phenomenon of piracy in its various forms since the late 1980s and early 1990s. Early work was descriptive in nature. Authors sought to identify the demographic characteristics of individuals who would likely participate in piracy, such as their career orientation, gender, and their beliefs about whether certain acts of piracy are ethical or unethical (Harrington, 1989; Cohen and Cornwell, 1990; Solomon and O'Brien, 1990; Logsdon *et al*, 1994; Sims *et al*, 1996). Although these papers are useful, they are not based on any well-articulated theoretical underpinnings.

---

<sup>2</sup> Microsoft estimates software piracy levels to be as high as 67 percent throughout the Caribbean, although Barbados was at the lower end of the scale (Daily Nation, 2009).

Other studies have used models with a sounder theoretical basis to explain the factors that influence an individual to pirate. For example, Simpson et al. (1994) developed a model to explain the underlying factors of softlifting behaviour. They identified five factors that influenced decision-making: stimulus to act, socio-cultural factors, legal factors, personal factors, and situational factors. Their results suggested that personal and situational factors had an influence on softlifting behaviour. On the other hand, the authors found no evidence that ethical perception of software piracy affected piracy behaviour. However, only single item attitudinal measures were used in this study and, therefore, the validity of the measures was not examined.

Similarly, Thong and Yap (1998) attempted to explain softlifting by entry-level information systems (IS) professionals in Singapore using ethical decision-making theory by Hunt and Vitell (1986). The theory suggests that individuals are influenced by deontological (where rules decide what is ethical or not) and teleological (examine the consequences of the behaviour) evaluations. The results show support for the applicability of Hunt and Vitell's theory. Entry-level IS professionals were found to use both deontological and teleological evaluations to arrive at an ethical judgment of moral issues. Thong and Yap conclude that their intentions to pursue softlifting behaviour were primarily determined by ethical judgment. Banerjee et al (1998) also developed a model to determine ethical behaviour intentions of IS personnel. They found that individuals, as well as situational factors influence ethical behaviour intentions. These factors are mainly the individual's personal normative beliefs and the ethical climate of the organisation.

Glass and Wood (1996) applied equity theory to explore the intentions of legal owners of software to provide other individuals with software to make illegal copies. They found that input and outcome situational variables significantly influenced the owner's intentions to participate in software piracy. The study did not investigate the factors affecting the act of illegally copying software. Al-Jabri and Abdul-Gader (1997) used the Theory of Reasoned Action (TRA) to derive a model that explains the effects of individual and peer beliefs on software piracy in Saudi-Arabia. Findings showed that these two constructs have significant impacts on intentions to pirate software.

Gopal and Sanders (1997) construct an analytical model to explore the impacts of anti-piracy measures on publisher profit. Results indicated that gender, age, and ethical propensity affected software piracy behaviour. Later, Gopal and Sanders (1998) advance an economic model that explains the reluctance of several countries to enforce anti-piracy laws. An important proposition derived from their analysis is that governments' incentives to enact and enforce copyright laws are closely related to the size of the domestic software industry. The authors also presented a general model of ethical behaviour related to the impact of behavioural and cultural factors on software piracy; its purpose was to examine whether these determinants of piracy behaviour are supranational and transcend cultural and ethical barriers. The model, tested on US and Indian graduate students, proved valid for the US, but not India.

Peace *et al* (2003) use the Theory of Planned Behaviour (TPB) as a framework to develop a software piracy model. The TPB framework is extended using expected utility theory and deterrence theory. Their results indicate that individual attitudes, subjective norms, and perceived behavioural control are significant antecedents to the intention to illegally copy software. The authors also show that punishment severity, punishment certainty, and software cost have direct effects on individuals' attitudes toward software piracy, whereas punishment certainty has a significant effect on perceived behavioural control.

More recently, Al-Rafee and Cronan (2006) examined factors that influence an individual's attitudes toward pirating digital material. The sample was the student body of a Midwestern US university. Their results indicate that an attitude toward digital pirating is influenced by cognitive beliefs (beliefs about the outcome of behaviour), active beliefs (happiness and excitement), age, the perceived importance of the issue, subjective norms (the influence of significant others), and Machiavellianism (tendency to deceive and manipulate others for personal gain).

Some studies have also assessed the determinants of piracy at the cross-country, as opposed to individual, level. Husted (2000) tested whether cultural variables such as power distance (a measure of vertical relationships in society), individualism (a measure of horizontal relationships in society), masculinity (a dimension that refers to a focus on material success, among

other things) and uncertainty avoidance (the extent to which members of a culture feel threatened by uncertainty or unknown situations), among other economic variables, determine the rate of software piracy at the country level, based on a sample of 50 countries. Only individualism and income per capita were found to have significant effects. Depken and Simmons (2004) conduct a study largely along the same lines. Using a sample of 65 countries they found evidence that the cross-country variation in software piracy is dependent on economic influence and institutional social mores. Unlike Husted (2000), Depken and Simmons found that power-distance has a significant effect on software piracy intentions.

The overarching conclusion that can be drawn from this literature review is that there is no single approach to understanding the determinants of piracy. Notwithstanding this observation, several deficiencies in the studies reviewed can be highlighted. First, several studies are descriptive in nature. Second, most previous research has concentrated on *software* piracy. Third, no work has been conducted on countries from the Caribbean. Fourth, studies which examined individual behaviour used samples drawn primarily from the student populations of universities and, to a lesser extent, workplaces. As such, their findings cannot be generalised to the entire population of any country.

This study attempts to remedy the aforementioned deficiencies. It will seek to determine factors that influence the propensity to commit *digital* piracy—an emerging type of piracy that is overtaking software piracy in terms of lost sales worldwide—in Barbados. Factors that influence piracy intentions are identified from the ethics and psychology literature. These along with several socioeconomic variables will be examined. To accomplish this objective, a representative sample drawn from the population of Barbados will be surveyed. The latter is another distinguishing feature of our work, in that the entire country is sampled, as opposed to past research which sampled predominantly from university student bodies.

### **Development of Research Hypotheses**

The model which provides the main theoretical foundation of our empirical work was developed by Triandis (1980). Triandis' model encompasses the components of both TRA—considered the most popular of all behavioural

models (Ajzen and Fishbein, 1975)—and the Theory of Planned Behaviour (TPB), a refinement of TRA by Ajzen (1991). Indeed, Thompson *et al* (1991, 1994) have found Triandis' model to be at least as powerful as TRA in terms of prediction and to be superior to TRA in other respects. Triandis' model explains individuals' behaviour in terms of what they have usually done, by what they think they should do, and by the consequences that they associate with a specific behaviour. It contains aspects that are directly related to an individual and others that are related to an individual's environment.

This research applies a variant of Triandis' (1980) model to the Barbadian context. The personal ethics of Barbadians along with other socioeconomic variables are also examined. Descriptions of the relevant factors which are used in our final model, their theoretical underpinnings, as well as explicit hypotheses are outlined below.

### *Attitudes*

Attitude has long been acknowledged as the most important construct in social psychology (Allport, 1935). Triandis (1980) refers to attitudes as an individual's feelings of joy, elation, pleasure, distaste or discontentment with respect to a particular behaviour. Theoretically, Ajzen (1991) noted that attitudes are key antecedents of intentions for individuals based on TPB, and much empirical research has provided support for this assumption. In a review by Trafimow and Finlay (1996), attitude was found to be the best predictor of intention in 29 out of 30 studies. A recent study on the piracy of software by Peace and Gallette (2003) found that attitude had the strongest effect on piracy intentions. In an ethical context, individuals are unlikely to intend to pirate if they feel that pirating is wrong (Loch and Conger, 1996). Similarly, Al-Jabri and Abdul-Gader (1997) found that individual attitudes have a significant effect on ethical intention to pirate software. Thus individuals who strongly view piracy as unethical will have a lower intent to pirate and vice-versa. This study postulates that:

- **H<sub>1</sub>**: There is an inverse relationship between attitudes and digital piracy intentions.

### *Beliefs/Perceived Consequences*

Each act or behaviour is perceived as having a potential outcome that can be either positive or negative (Triandis, 1980). An individual's choice of behaviour is based on the probability that an action will provoke a specific consequence based on theoretical assumptions embedded in TRA and TPB (Ajzen, 1991). Similarly, a person's intention to pirate has been shown to be influenced by the potential outcomes (Hunt and Vitell, 1986; Thong and Yap, 1998). Finally, Banerjee *et al* (1998) suggest that the degree to which an individual perceives that a penalty will follow from his/her behaviour affects the intention to behave ethically or unethically. We hypothesise that:

- **H<sub>2</sub>**: There is an inverse relationship between beliefs and digital piracy intentions.

### *Environment/Facilitating Conditions*

Triandis (1980) suggests that facilitating conditions are objective factors in the environment that make it easier to commit an act. From a theoretical perspective, facilitating conditions are in keeping with perceptions of behavioural control, a crucial factor in TPB, which deals with how easy or difficult a particular act is perceived to be (Ajzen, 1991). Facilitating conditions are those factors in an individual's environment that facilitate the act of pirating software. Cheng *et al* (1997) found that the ease of piracy and the low risk of being caught are among the main factors that facilitate piracy. As a result, we expect facilitating conditions to have a positive influence on digital piracy intentions:

- **H<sub>3</sub>**: There is a positive relationship between facilitating conditions and digital piracy intentions.

### *Personal Ethics*

A person's moral philosophy is a determinant of their behaviour in response to an ethical issue (Forsyth, 1992). Idealism and relativism, two separate ethical constructs, are two aspects of an individual's moral philosophy (Elias, 2002). Idealism measures a person's attitude toward causing harm to others, while relativism measures a person's attitude toward universal moral principles and rules. Idealists feel that harming another individual is always avoidable and avoid choosing the lesser of two evils if it may result in harm

to other people. Persons with low idealism, or pragmatists, feel that some harm is often necessary to achieve some overall benefit (Forsyth, 1992). Relativists reject universal moral principles and feel that the morality of a given action depends on the situation and individuals involved (Forsyth, 1992). Persons with low relativism contend that morality requires acting in ways that are consistent with moral principles (Ziegenfuss, 1999).

Forsyth (1980) identifies four categories, termed personal ethical philosophies (PEPs) based on a person's measured levels of idealism and relativism. Situationalists (PEP = 1) reject universal moral principles, but feel that morality requires actions that benefit all individuals involved. Absolutists (PEP = 2) believe that morality requires striving for positive consequences and good for all, while maintaining compliance with general moral guidelines. Subjectivists (PEP = 3) also reject universal moral principles, and contend that moral actions require a weighing of consequences of proposed actions, with awareness that some harm may be unavoidable. They base their actions on personal, as opposed to universal, values. Finally, Exceptionists (PEP = 4) espouse adherence to universal guidelines and principles, but confess that following these guidelines and principles may have negative consequences.

Previous research has found that people who are high on the relativism scale generally are more tolerant of ethically ambiguous behaviour than people who are high on the idealism scale (Singhapakdi *et al* 1996; Comunale *et al*, 2006). This research thus makes the following hypotheses:

- **H<sub>4</sub>**: High idealists will have weaker intentions to commit digital piracy than low idealists (there is an inverse relationship between idealism and piracy intentions).
- **H<sub>5</sub>**: High relativists will have stronger intentions to commit digital piracy than low relativists (there is a positive relationship between relativism and piracy intentions).

### *Income*

Husted (2000) argues that software piracy is likely to be more prevalent in countries with a large middle class. Sims *et al* (1996) find that piracy is common among university students, which is generally a privilege of the middle class. Likewise, Cheng *et al* (1997) also found that household income is significantly related to the claim 'can't afford software' as a reason

to make illegal copies of software among university students. Thus, we hypothesise that:

- **H<sub>6</sub>**: There is an inverse relationship between income and digital piracy intentions.

### *Age*

The literature suggests that older individuals have higher ethical standards than younger individuals (Ford and Richardson, 1994). Younger individuals have less regard for ethical considerations that they encounter (Coombe and Newman, 1997). As people age, they progress to a higher stage of moral development (Lawrence and Shaub, 1997). A pirate profile by the MPAA reports that the 16-24 age group commits piracy at the highest rate (MPAA, 2005). As a result, it is expected that there will be weaker intent to pirate by older persons. This study makes the following hypothesis:

- **H<sub>7</sub>**: There is an inverse relationship between age and digital piracy intentions.

### *Gender*

The impact of gender effects on ethical decision-making is mixed. Some studies have found no difference (Stanga and Turpen, 1991; Lawrence and Shaub, 1997). Others have found gender to influence ethical decision-making (Khazanchi, 1995; Reiss and Mitra, 1998; Leonard and Cronan, 2001). Ford and Richardson (1994) found that females have a higher ethical standard than males while Sims *et al* (1996) found that male students pirated software more frequently than female students. The pirate profile conducted by the MPAA reports that the typical worldwide pirate is male (MPAA, 2005). Overall, therefore, it is expected that the intent to commit digital piracy will be stronger in males than females. Our hypothesis is:

- **H<sub>8</sub>**: Females will have lower digital piracy intentions than males (there is an inverse relationship between gender and digital piracy intentions).<sup>3</sup>

---

<sup>3</sup>The direction of the hypothesised relationship is based on how the study codes gender: Male = 1 and Female = 2.

### *Level of Education*

Education has been widely used as a variable to predict piracy rate. Research by Shadlen *et al* (2005) suggests that countries with a larger higher-educated population will have lower piracy rate due to people's higher awareness and willingness to protect the intellectual property right. Similarly, Marron and Steel (2000), find that the literacy rate is inversely related to the rate of software piracy. Eyun-Jung *et al* (2006) argue that people who are more highly educated are more developed both ethically and morally and therefore are more likely to view piracy as an unethical behaviour. In a cross-country study, they find that the level of education has a significant impact on music piracy. It is also likely that people with higher education are not only more informed of intellectual property rights but also tend to have higher incomes and perhaps more legitimate consumption of digital material. While each of the studies cited used a cross-country sample, our expectations are that this result will hold within a country. Our hypothesis is:

- **H<sub>9</sub>**: Level of education is inversely related to digital piracy intentions.

### *Intentions*

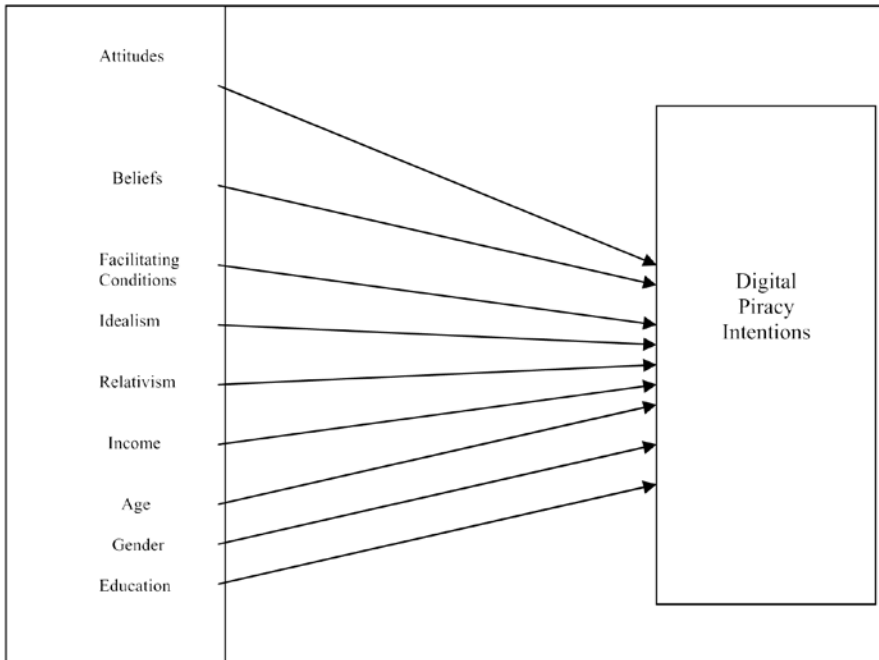
The dependent variable in our model, intentions, is a central factor in Triandis' (1980) model. This construct refers to an individual's intention to pirate in our context. Intentions are indicators of the degree to which an individual is willing to try and how much effort he/she is willing to make in order to perform a particular behaviour. Together with facilitating conditions, intentions are viewed as the best antecedent of actual behaviour (Ajzen, 1991; Al-Jabari and Abdul-Gader, 1997; Banerjee *et al*, 1998; Thong and Yap, 1998).

Table 2 summarises the hypothesised effects of each independent variable on digital piracy intentions. Figure 1 shows a model depicting these same effects.

**Table 2: Hypothesised Relationships between Independent Variables (IVs) and Piracy Intentions**

Independent Variable	Digital Piracy Intentions
Attitudes	-
Beliefs	-
Facilitating Conditions	+
Idealism	-
Relativism	+
Income	-
Age	-
Gender	-
Level of Education	-

**Figure 1: Model Showing the Effects of IVs on Digital Piracy Intentions**



## Methodology

### *Participants and Data-Collection Procedures*

The study targeted four hundred Barbadian residents from across the country. Based on census data, quota sampling was employed. The population data was stratified by gender, parish/district, and age in order to obtain comparable proportions in the sample. Respondents from age 15 and above only were included in the sample. Trained graduates and research assistants were employed to conduct the administration of the survey to the Barbadian population. These assistants were instructed to obtain the desired number of persons in each identified demographic category, such as gender and age, for each parish. The actual selection of these people in the specific categories was done conveniently. The final sample comprised 390 participants, indicating a 97.5 percent response rate.

### *Instrument and Measures*

The main data-collection tool used was a structured questionnaire comprising several quantitative measures or scales (see Appendix A). Composite scores were computed for each measure. These measures were taken from prior research studies which have demonstrated strong evidence of their high reliability and validity. This evidence provided the basis on which the selection was made.

**Attitudes** were measured using seven items measuring respondents' attitudes towards piracy; this measure was derived from prior research (Woolley and Eining, 2006). Items were scored on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores on this measure indicated more unfavourable attitudes towards the practice of piracy (Sample item: I believe there is a chance of getting caught pirating digital media). The validity and reliability were deemed adequate for this scale in prior research; for example, the reliability estimate for this scale in a past research study by Woolley and Eining was above .70. The Cronbach's alpha for this study was .68.

**Beliefs** were measured using ten items measuring respondents' beliefs about and perceived consequences of piracy. Items were scored on a five-point

Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores on this measure represented stronger beliefs of negative consequences regarding the practice of piracy (Sample item: I believe there is a chance of getting caught pirating digital media). This scale was derived from validated scales in prior research based on research by Limayem *et al* (2004). In the previous study, this scale was reported to have high validity and reliability estimates above .80 and .70, respectively. The Cronbach's alpha for this study was .60.

**Facilitating conditions** were measured using five items which capture objective environmental factors that make piracy easier to do (Sample item: There is a weak enforcement of anti-piracy laws). Items were scored on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores on this measure represented higher perceived levels of facilitating conditions regarding the practice of piracy (Sample item: I believe there is a chance of getting caught pirating digital media). This scale was derived from validated scales in prior research by Limayem *et al* (2004). In the previous study, this scale was found to have high validity and reliability estimates above .80 and .70, respectively. However, the Cronbach's alpha for this study was .45, suggesting the reliability was low in this sample. Implications of this low estimate have been discussed later on.

**Idealism and Relativism** were two measures adapted from an ethical orientations questionnaire or the EPQ (Forsyth, 1980). Idealism and relativism were each measured using five items based on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores on the idealism scale (for example, Moral actions are those that closely match ideals of the most 'perfect' action) and relativism scale (for example, What is ethical varies from one situation and society to another) represented higher levels of idealism and relativism respectively. Forsyth (1980) had revealed good evidence of reliability for both scales above .70. Cronbach's alphas for idealism and relativism for this research were .59 and .66 respectively.

**Piracy Intentions** were measured using four items which highlighted the extent to which respondents intend to pirate digital media (Sample item: I intend to pirate digital media in the future). Items were scored on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Adapted from Limayem *et al* (2004), this piracy intentions scale (like the

scales measuring beliefs, attitudes, and facilitation conditions) were derived from validated scales in prior research. Limayem *et al* (2004) tested the validity and reliability of this piracy intentions scale and revealed high validity and reliability estimates above .80 and .70, respectively. The Cronbach's alpha for this measure in this research was .96.

### *Data Analyses*

Descriptive and inferential statistics were carried out on the quantitative survey data to address the main hypotheses advanced in this study. Descriptive statistics ranged from frequencies/percentages for demographic variables such as gender, age, education, and occupational status to arithmetic means and standard deviations for continuous variables such as attitudes, beliefs, facilitating conditions, idealism and relativism, and piracy intentions. The main inferential techniques employed were Pearson product moment correlations among continuous variables, and standard multiple regression analysis which were used to directly examine the impact of both socioeconomic and continuous psychological factors on piracy intentions as outlined in the main research hypotheses. All inferential tests were conducted at the 5 percent level of significance.

## **Results**

### *Demographic Profile of Respondents*

Table 3 provides a summary of the demographic profile of the sample (n = 390). There were 183 (46.9%) males and 207 females (53.1%) females in the sample. Participants' ages ranged from 15 to 84 years with an average age of approximately 41 years. A plurality of respondents indicated the highest level of education which they attained was at the secondary level (32.3%), followed by technical/vocational (20%); the smallest categories for this demographic were those with a primary education (3.3%) and Masters/PhD (4.1%). Professional and Technical were the largest occupational class (19.7%) followed by Administrative Support (15.1%). Just over one-quarter of our sample does not have a job: students (10.3%); retired (14.7%); and unemployed (4.1%). Finally, the average monthly income of respondents is BDS \$2,025.51.

### *Preliminary Analysis*

Table 4 displays the descriptive statistics and correlation matrix for the socio-psychological and demographic variables. The factors which lie above the midpoint on the scale are in order: idealism ( $M = 3.97$ ); facilitating conditions ( $M = 3.60$ ); relativism ( $M = 3.52$ ); and attitudes ( $M = 3.25$ ). In contrast, beliefs is the only factor which lies below the midpoint ( $M = 2.98$ ). The dependent variable, piracy intentions, lies slightly below the midpoint ( $M = 2.81$ ), suggesting that on average Barbadians do not intend to pirate.

Table 5 shows the distribution of Barbadians over the four PEP categories defined previously. The definition of high and low on these scales uses the median values, 4.0 on the idealism scale and 3.6 on the relativism scale, to determine the allocation to each PEP category. Table 6 indicates that a majority of Barbadians are situationalists (55.9%), that is, they reject the existence of some universal ethical code which everyone should live their lives by; however, they feel that morality requires actions that benefit all everyone. Put another way, most Barbadians appear to believe that whether their actions are moral or not depends on the situation, as opposed to being intrinsically right or wrong.

### *Regression Results*

Regression analysis was used to examine the factors that explain digital piracy intentions in Barbados. Table 6 provides the results.

Statistically significant support was found for hypotheses H1 (attitudes), H2 (beliefs), H3 (facilitating conditions), H5 (relativism) and H7 (age). While there was no significant support for H6 (monthly income) and H8 (gender), the coefficients had the expected signs. The outcomes for hypotheses H4 (idealism) and H8 (level of education) did not agree with prior expectations. The signs on the coefficients on idealism and level of education were both positive; however, while idealism was an insignificant factor, the level of education was found to be significant in explaining piracy intentions, which is surprising, given the positive coefficient.

**Table 3: Demographic Profile**

	n	Frequency (%)
<b>Gender</b>		
• Male	183	46.9
• Female	207	53.1
<b>Age Group</b>		
• 15-19 years	38	9.7
• 20-29 years	80	20.5
• 30-44 years	115	29.5
• 45-59 years	81	20.8
• 60 years and over	76	19.5
<b>Highest Level of Education</b>		
• Primary	13	3.3
• Secondary	126	32.3
• Technical/Vocational	78	20.0
• A-Level/Associate Degree	70	17.9
• Bachelors	65	16.7
• Postgraduate Diploma	22	5.6
• Masters/PhD	16	4.1
<b>Occupational Class</b>		
• Professional and Technical Occupations	77	19.7
• Executive, Administrative, and Managerial Occupations	33	8.5
• Sales Occupations	19	4.9
• Administrative Support, including Clerical Occupations	59	15.1
• Precision Production, Craft, and Repair Occupations	34	8.7
• Machine Operators, Assemblers, and Inspectors	3	0.8
• Transportation and Material Moving Occupations	3	0.8
• Handlers, Equipment Cleaners, Helpers and Labourers	26	6.7
• Service Occupations, except Private Household	25	6.4
• Student	40	10.3
• Retired	55	14.7
• Unemployed	16	4.1

**Note:** The categories in occupational class are based on the US Bureau of Labour Statistics Occupational Classification System.

**Table 4: Descriptive Statistics and Correlations of Socio-Psychological Constructs and Demographics**

	Mean	SD	1	2	3	4	5	6	7	8	9
1. Attitudes	3.25	0.65									
2. Beliefs	2.98	0.56	0.58***								
3. Facilitating conditions	3.60	0.91	-0.21***	-0.22***							
4. Idealism	3.97	0.54	0.23***	0.13**	-0.04						
5. Relativism	3.52	0.70	-0.03	-0.08	0.14**	0.29***					
6. Age	40.85	17.13	0.34***	0.30**	-0.25***	0.17**	-0.11*				
7. Monthly income	1250	1830	0.05	0.04	0.10*	-0.10*	-0.11*	0.16**			
8. Gender	1.53	.50	0.06	0.07	-0.04	0.07	0.00	0.08	-0.16**		
9. Education	3.45	1.15	-0.42	-0.09	0.09	-0.10	-0.01	-0.05	0.49***	-0.00	
10. Intentions	2.81	1.26	-0.54***	-0.52***	0.38***	-0.08	0.18***	-0.36***	-0.01	-0.08	0.159**

Notes: All items were assessed on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). \*  $p < .05$ ; \*\*  $p < .01$ ; and \*\*\*  $p < .001$ .

**Table 5: Distribution of Barbadians with respect to the Four PEP Categories**

	High Relativism	Low Relativism
High Idealism	PEP = 1 Situationalist <b>55.9%</b>	PEP = 2 Absolutist <b>13.6%</b>
Low Idealism	PEP = 3 Subjectivist <b>21.8%</b>	PEP = 4 Exceptionist <b>8.7%</b>
Total	<b>77.7%</b>	<b>22.3%</b>

Next we examine the regression diagnostics. The coefficient of determination is 0.457 indicating that 45.7 percent of the variation in digital piracy intentions is explained by the factors in our model. Multicollinearity is one problem that can arise with the type of data employed in this study. One of its effects is that the estimates of the coefficients may be sensitive to the data used. The variance inflation factor (VIF) is one measure of the effect the other independent variables have on the variance of the regression coefficient (Maddala, 1988). Large VIF values indicate high collinearity. A suggested cut-off is 10 (Studenmund, 1992). The VIF values reported in Table 6 are all less than 1.7 indicating that collinearity is not a problem for our estimates.

**Table 6: Regression Results**

	Coefficient	t-value	VIF
Constant	4.590***	8.462	NA
Attitudes	-0.308***	-6.403	1.62
Beliefs/Perceived Consequences	-0.237***	-5.003	1.57
Environment/Facilitating Conditions	0.215***	5.322	1.14
Idealism	0.036	0.863	1.20
Relativism	0.095*	2.328	1.16
Monthly Income	-0.041	-0.905	1.44
Age	-0.127**	-2.955	1.28
Gender	-0.035	-0.911	1.06
Level of Education	0.114*	2.560	1.38
$R^2$	0.457		
$F$	35.488***		
Durbin-Watson	1.857		

\*  $p < .05$ ; \*\*  $p < .01$ ; and \*\*\*  $p < .001$ .

## Discussion

The significant impact of attitudes suggests that individuals that have a less favourable view of piracy will have lower intentions to pirate digital media. Moreover, beliefs/perceived consequences were also found to have a negative impact on piracy intentions. Together, these findings have several implications for curbing digital piracy in Barbados.

The beliefs that digital media is overpriced and that pirating will save money suggest that lowering prices will reduce intentions to pirate and, by extension, the actual behaviour. By lowering prices, digital pirates may re-examine the trade-off between pirating versus buying, hopefully tilting the balance towards buying (Cheng *et al*, 1997). Since most digital media is produced abroad, Barbados, a small open economy, cannot influence the import price of these products. Thus the lowering of the final prices of imported digital media would have to be accomplished through the reduction of duties on the imported media. On the other hand, it may be more feasible to lower

prices for digital media that is locally produced. However, if this is not possible, then it may be worthwhile for companies which produce digital material to educate the public on why prices are as ‘high’ as they are. This may be accomplished by explaining the different costs associated with production and promotion which go into the final price. Further, they could draw attention to the implications of piracy on employment of persons who work in the various industries, and the disincentive effect which it has on the creation of new products. Of course, educating the public raises the final price of the digital media, because of the cost to produce brochures, place notices in the print or online news papers, or purchase airtime on radio or television. However, the long-run benefits of reducing piracy may outweigh the short-run costs.

Facilitating conditions—for example, weak enforcement of local anti-piracy laws and lack of anti-piracy campaigns, the two most significant items which comprise this factor—significantly affect the intentions to pirate digital media in Barbados. This suggests that the local environment is conducive to committing digital piracy. In this regard, existing laws should be enforced. However, pursuing each individual pirate in Barbados is not feasible. A useful approach to increase the deterrent effect would be to expand media coverage when pirates are arrested and later tried in court (Al-Rafee and Cronan, 2006).

There is partial evidence to support the effect of personal ethics on piracy intentions in Barbados; relativism is a significant factor. The result implies that Barbadians who are higher on the relativism scale are more likely to pirate in the future. As more Barbadians appear to be relativists, this finding suggests that local anti-piracy campaigns and laws need to demonstrate that digital piracy is a ‘real’ crime as opposed to a petty offence, or a crime which is considered minor in comparison/relation to other offences, and will be penalised as such. Idealism, on the other hand, is insignificant in explaining piracy intentions.

Contrary to expectations, monthly income was not a significant predictor of piracy intentions in Barbados, even though the sign of the coefficient was as expected. This means as we move from one income bracket to a next, there is no significant change in intentions to pirate. Put another way, the percentage of people in each income bracket is relatively evenly distributed across the

range of digital piracy intentions; people with high incomes are as likely to have high intentions to pirate as people with low incomes, and this lack of variation holds at all levels of piracy intentions. Thus, a focus on economic solutions, such as emphasising the quality of authentic digital media may not provide enough incentive in reducing piracy. Indeed, while 43 percent of those surveyed reported that the possibility that pirated media might not work as well as the authentic version was important or very important to them, virtually an identical proportion (41%) said that it was unimportant or very unimportant, and 16 percent were indifferent.

The gender of respondents was not found to be a significant predictor of intentions in this study. While females had lower intentions to pirate digital media as expected, that difference was not significant. The literature on ethical decision-making has reported inconsistent results (Kjazarani, 1995; Reis and Mitra, 1998). Researchers argue that this might be an artefact of the situation itself (Banerjee *et al*, 1998), and that different ethical situations are affected by different variables, which might be the case here.

Older Barbadians have lower intentions to pirate than younger Barbadians. To see which age group(s) are more likely to pirate, further analysis was conducted. The intentions measure ranges from 1 (very low intentions) to 4 (very high intentions) and is cross-tabulated with the five age groups described in Table 2. Table 7 provides these results. It indicates that 52.6 percent of Barbadians ages 15-19 have high to very high intentions to pirate digital media, closely followed by 52.5 percent of Barbadians in the 20-29 age group. Although, piracy intentions in the 30-44 and 45-59 age categories are lower than in the 15-19 and 20-29 categories, they are still relatively high; 38.3 percent and 32.8 percent respectively in the 30-44 and 45-59 categories report high to very high intentions to pirate. On the other end of the scale, 92 percent of Barbadians 60 years and older have low to very low intentions to pirate. A Pearson chi square test confirmed that piracy intentions were significantly related to age ( $\chi^2 = 72.429$ ,  $df = 12$ ,  $p < .001$ ). The implications of these findings are clear: anti-piracy campaigns and education must target the youth and should commence from as early an age as is feasible.

**Table 7: Cross-tabulation of Age Groups and Piracy Intentions**

Level of Piracy Intentions	Age Group				
	15-19 (%)	20-29 (%)	30-44 (%)	45-59 (%)	60 and over (%)
Very Low	23.7	18.8	34.8	39.5	76.3
Low	23.7	28.8	28.7	29.6	15.8
High	26.3	35.0	23.5	16.0	5.3
Very High	26.3	17.50	14.8	14.8	2.6

The final socioeconomic factor, level of education, has a positive effect on piracy intentions, which runs counter to expectations. It implies that as individuals with higher attained levels of education have higher intentions to pirate. To see what was driving this result, we re-estimated our regression, this time including dummy variables for each level of education; the primary level was used as the reference category. Results are shown in Table 8. Apart from level of education, all other results are qualitatively the same as reported in Table 6. The first point to note is that all education levels above the primary level have higher intentions to pirate. However, this is easily explained by the fact that the majority of persons whose highest level of education attained was at the primary level, were those in the 60 years and older age group and, as we have shown previously, this was the group with the lowest piracy intentions. Figures in the table indicate the rankings with respect to piracy intentions, for example, the rank of (1) indicates that those with Bachelors degrees have the highest piracy intentions compared to the primary level and so on. The rankings of highest piracy intentions with respect to level of education attained—Bachelors, Technical/Vocational, Secondary, and A-Level/Assoc. Deg. respectively—are not as expected according to how the theory predicts intentions are related to level of education; on the other hand, the rankings of individuals with postgraduate diplomas and masters and PhDs are as expected. The confounding factor again appears to be age. Percentage-wise, most individuals who have attained Bachelors, Technical/Vocational, Secondary, and A-Level/Associate Degree certification are in the 15-19 and 20-29 age groups who, as was discussed previously, were found to have the highest level of piracy intentions. Thus the general trend of increasing piracy intentions as individuals' level of education increases appears to be partly as a result of the influence of age.

The study has a number of limitations that must be considered. One limitation is that the study examined only direct effects of socio-psychological and socioeconomic factors on piracy intentions. It failed to examine indirect (mediated) and moderating factors that may affect the relationship between these factors and intentions. It is suggested that future research should investigate these possibilities. Another limitation of the study is that the study is cross-sectional in nature and hence, causality among variables cannot be determined. In terms of sampling, the study captured approximately four hundred participants. Given the large population size, this sample size may not be adequate enough to generalise to the larger population. Hence, the sample is primarily an exploratory one and future research is advised to capture much larger and representative samples (approximately 800 to 1000 participants). Finally, the low reliability estimate for the 'facilitating conditions' scale is indeed unexpected given the fact that it was shown to have high reliability in past research. One explanation could be that cultural differences between the respondents in the current study and the prior study in which this scale was tested may have been responsible for the low reliability. Hence, readers are cautioned when interpreting the findings regarding the effect of this variable on piracy intentions. Further research should examine longitudinally the effects of these factors on piracy intentions in a later phase. Finally, piracy intentions, albeit a good predictor of behaviour, cannot be used as a proxy for actual piracy behaviour. There are situations in which intentions may not translate into actual behaviour. As a result, further research should examine the impact of these predictors on actual piracy behaviour as mediated by piracy intentions.

### **Concluding Remarks**

The purpose of the study was to identify factors which influence the decision of Barbadian residents to pirate digital media. Digital piracy was defined as: the distribution, purchase, copying and downloading, of copyrighted digital material which includes but is not limited to software, music, video, or other digital items. The study explored whether attitudes, beliefs, facilitating conditions, idealism, relativism, monthly income, age, gender and level of education could explain the propensity for digital piracy in Barbados.

**Table 8: Regression Results with Education Dummies**

	Coefficient	t-value	VIF
Constant	4.122***	6.731	NA
Attitudes	-0.302***	-6.265	1.65
Beliefs/Perceived Consequences Environment/Facilitating Conditions	-0.245***	-5.134	1.61
Idealism	0.038	0.922	1.22
Relativism	0.091*	2.246	1.17
Monthly Income	-0.051	-1.129	1.45
Age	-0.109*	-2.423	1.43
Gender	-0.031	-0.781	1.10
Secondary (3)	0.213*	1.976	8.23
Technical/Vocational (2)	0.275**	2.883	6.42
A-Level/Assoc. Deg. (4)	0.200*	2.109	6.36
Bachelors (1)	0.283**	3.044	6.12
Postgraduate Diploma (5)	0.196**	2.967	3.08
Masters/PhD (6)	0.123*	2.039	2.56
$R^2$	0.451		
$F$	23.785***		
Durbin-Watson	1.850		

**Notes:** Figures in parentheses indicate the ranking of piracy intentions with respect to level of education: (1) indicates the highest relative intention to pirate, and (6) indicates the lowest relative intention to pirate. \*  $p < .05$ ; \*\*  $p < .01$ ; and \*\*\*  $p < .001$ .

The study found that attitudes, beliefs, facilitating conditions, relativism and age do help to predict the digital piracy intentions of Barbadians, as expected. While the level of education was also a significant factor, it behaved contrary to our assumptions and what has been discovered in previous studies. Specifically, we found that digital piracy intentions were positively related to the level of education. We show that this result may be due to the moderating influence of age on the level of education. Contrary to expectations, income, idealism and gender had no impact on piracy intentions.

Given the reasonably small R-square of our model, we suggest that a more elaborate model incorporating additional antecedent factors beyond those considered here be developed. Such a study should follow a longitudinal approach towards data acquisition, as it would provide a stronger causal understanding of the factors that affect piracy intentions. Yet, our findings suggest that policies for the prevention and control of digital piracy in Barbados may have limited impact if they ignore nuances related to the environment, and the personal ethics, socio-psychological traits and age of residents.

### References

- Ajzen, I. 1991. 'The Theory of Planned Behaviour: Some Unresolved Issues'. *Organisational Behaviour and Human Decision Processes*, 50(2): 179-211.
- Ajzen, I. and Fishbein, M. 1975. *Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.
- Al-Jabri, I. and Abdul-Gader, A. 1997. 'Software Copyright Infringements: An Exploratory Study of the Effects of Individual and Peer Beliefs'. *Omega*, 25(3): 335-344.
- Allport, G. 1935. 'Attitudes'. In C. Murchison (ed.), *Handbook of Social Psychology*, Worcester, MA, Clark University Press, 798-844.
- Al-Rafee, S. 2002. *Digital Piracy: Ethical Decision Making*. Ph.D. Dissertation. University of Arkansas.
- Al-Rafee, S. and Cronan, T.P. 2006. 'Digital Piracy: Factors that Influence Attitude toward Behaviour'. *Journal of Business Ethics*, 63(3): 237-259.
- Banerjee, D., Cronan, T.P. and Jones, T.W. 1998. 'Modelling IT Ethics: A Study in Situational Ethics'. *MIS Quarterly*, 22(1): 31-60.
- Bhattacharjee, S. and Gopal, R. 2003. 'Digital Music and Online Sharing: Software Piracy 2.0?' *Communication of the ACM*, 46(7): 107-111.
- Business Software Alliance. 2008. *Fifth annual BSA and IDC Global Software Piracy Study*. Washington, D.C.: Business Software Alliance. Mar. 2009. <<http://bsa.org/globalstudy>>
- Cheng, H.K. Sims, R.R. and Teegen, H. 1997. 'To Purchase or to Pirate Software: An Empirical Study'. *Journal of Management Information Systems*, 13(4): 49-60.
- Comunale, C.L. Sexton, T.R. and Gara, S.C. 2006. 'Professional Ethical Crises: A Case Study of Accounting Majors'. *Managerial Auditing Journal*, 21(6): 636-656.
- Cohen, E. and Cornwell, L. 1989. 'A Question of Ethics: Developing Information System Ethics'. *Journal of Business Ethics*, 8(6): 431-437.
- Coombe, K. and Newman, L. 1997. 'Ethics in Early Childhood Field Experiences'. *Journal of Australian Research in Early Childhood Education*, 1:1-9.
- Daily Nation. 2009. Microsoft software piracy in Caribbean. *Daily Nation*. September 2009. <[http://archive.nationnews.com/archive\\_detail.php?archiveFile=2009/September/26/Business/3284724.xml&start=0&numPer=20&keyword=piracy&sectionSearch=&beginDate=1/1/1994&endDate=2/11/2010&authorSearch=&IncludeStories=1&mode=allwords&archive\\_pubname=Sun+on+Saturday%0A%09%09%09](http://archive.nationnews.com/archive_detail.php?archiveFile=2009/September/26/Business/3284724.xml&start=0&numPer=20&keyword=piracy&sectionSearch=&beginDate=1/1/1994&endDate=2/11/2010&authorSearch=&IncludeStories=1&mode=allwords&archive_pubname=Sun+on+Saturday%0A%09%09%09)>

- Depken II, C.A. and Simmons, L.C. 2004. 'Social Construct and the Propensity for Software Piracy'. *Applied Economics Letters*, 11(2): 97-100.
- Elias, R. 2002. 'Determinants of Earnings Management Ethics among Accountants'. *Journal of Business Ethics*, 40(1): 33-45.
- Eyun-Jung, K., Chang, B-H. and Khang, H. 2006. 'Exploring Influential Factors on Music Piracy across Countries'. *Journal of Communication*, 56(2): 406-426.
- Ford, T. and Richardson, W. 1994. 'Ethical Decision-making: A Review of the Empirical Literature'. *Journal of Business Ethics*, 13(3): 205-221.
- Forsyth, D. 1980. 'A Taxonomy of Ethical Ideologies'. *Journal of Personality and Social Psychology*, 39(1): 175-184.
- Glass, R.S. and Wood, W.A. 1996. 'Situational Determinants of Software Piracy: An Equity Theory Perspective'. *Journal of Business Ethics*, 15(11): 1189-1198.
- Gopal, R., and Sanders, L. 1997. 'Preventive and Deterrent Controls for Software Piracy'. *Journal of Management Information Systems*, 13(4): 29-47.
- Gopal, R., and Sanders, L. 1998. 'International Software Piracy: Analysis of Key Issues and Impacts'. *Information Systems Research*, 13(4): 29-47.
- Harrington, S.J. 1989. 'Why People Copy Software and Create Computer Viruses: Individual Characteristics or Situational Factors'. *Inform, Resources Management Journal*, 2(3): 213-237.
- Hunt, S. and Vitell, S. 1986. 'A General Theory of Marketing Ethics'. *Journal of Micromarketing*, 6(1): 5-16.
- Husted, B. 2000. 'The Impact of National Culture on Software Piracy'. *Journal of Business Ethics*, 26(3): 197-211.
- Im, J., and Van Epps, P. 1991. 'Software Piracy and Software Security in Business Schools: An Ethical Perspective'. *Data Base*, 22(3):15-21.
- Institute for Policy Innovation. 2007. *The True Cost of Copyright Industry Piracy to the U.S. Economy*. Texas: Institute for Policy Innovation. Dec. 2008. <<http://www.ipi.org>>
- Khazanchi, D. 1995. 'Unethical Behaviour in Information Systems – The Gender Factor'. *Journal of Business Ethics*, 14(9): 741-749.
- Lau, E. 2003. 'An Empirical Study of Software Piracy'. *Business Ethics*, 12(3): 233-245.
- Lawrence, J. and Shaub, M. 1997. 'The Ethical Construction of Auditors: An Examination of the Effects of Gender and Career Level'. *Managerial Finance*, 23(12): 52-68.
- Leonard, L. and Cronan, T.P. 2001. 'Illegal, Inappropriate and Unethical Behaviour in an Information Technology Context: A Study to

- Explain Influence'. *Journal of the Association for Information Systems*, 1(12): 1-31.
- Limayem, M., Khalifa, M. and Chin, W.W. 2006. 'Factors Motivating Software Piracy: A Longitudinal Study'. *IEEE Transactions on Engineering Management*, 15(4): 414-425.
- Loch, K.D. and Conger, S. 1996. 'Evaluating Ethical Decision Making and Computer Use'. *Communications of the ACM*, 39(7): 74-83.
- Logsdon, J.M., Thompson, J.K. and Reid, R.W. 1994. 'Software Piracy: Is it Related to Level of Moral Judgement?' *Journal of Business Ethics*, 13(11): 849-857.
- Maddala, G.S. 1988. *Introduction to Econometrics*. New York: Macmillan.
- Marron, D.B. and Steel, D.G. 2000. 'Which Countries Protect Intellectual Property? The Case of Software Piracy'. *Economic Inquiry*, 38(2): 147-174.
- MPAA. 2005. *The Cost of Movie Piracy*. Washington, D.C.: MPAA. Jan. 2009. <<http://www.mpaa.org>>
- Peace, A., Galletta, D. and Thong, J.Y.L. 2003. 'Software Piracy in the Workplace: A Model and Empirical Test'. *Journal of Management Information Systems*, 20(1): 153-177.
- Reid, R. and Thompson, J. 1992. 'Knowledge and Attitudes of Management Students toward Software Piracy'. *Journal of Computer Information Systems*, 33(1): 46-51.
- Reiss, M. and Mitra, K. 1998. 'The Effects of Individual Difference Factors on the Acceptability of Ethical and Unethical Workplace Behaviours'. *Journal of Business Ethics*, 17(14): 1581-1593.
- Richardson, R.S. and Gaisford, J.D. 1996. 'North-South Disputes over the Protection of Intellectual Property'. *Canadian Journal of Economics*, 29(S1): 376-381.
- Shadlen, K.C., Schrank, A. and Kurtz, M.J. 2005. 'The Political Economy of Intellectual Property Protection: The Case of Software'. *International Studies Quarterly*, 49(1):45-71.
- Sims, R.R., Cheng, H.K. and Teegen, H. 1996. 'Toward a Profile of Student Software Pirates'. *Journal of Business Ethics*, 15(8): 839-849.
- Simpson, P.M., Banerjee, D. and Simpson Jr., C.L. 1994. 'Softlifting: A Model of Motivating Factors'. *Journal of Business Ethics*, 13(6): 431-438.
- Singhapakdi, A., Vitell, S., Rallapalli, K. and Kraft, K. 1996. 'The Perceived Role of Ethics and Social Responsibility: A Scale Development'. *Journal of Business Ethics*, 15(11): 1131-1140.
- Stanga, K. and Turpen, R. 1991. 'Ethical Judgements on Selected Accounting Issues: An Empirical Study'. *Journal of Business Ethics*, 10(10): 739-747.
- Solomon, S.L. and O'Brien, J.A. 1990. 'The Effect of Demographic Factors on Attitudes toward Software Piracy'. *Journal of Computer Information Systems*, 30(3): 40-46.

- Studenmund, A.H. 1992. *Using Econometrics: A Practical Guide*. New York: Harper Collins.
- Thong, J. and Yap, C. 1998. 'Testing an Ethical Decision-making Theory: The Case of Softlifting'. *Journal of Management Information Systems*, 15(1): 213-237.
- Thompson, R.L., Higgins, C.A. and Howell, J.M. 1991. 'Personal Computing: Toward a Conceptual Model of Utilisation'. *MIS Quarterly*, 15(1): 236-143.
- Thompson, R.L., Higgins, C.A. and Howell, J.M. 1994. 'Influence of Experience on Personal Computer Utilisation: Testing a Conceptual Model'. *Journal of Management Information Systems*, 11(1): 167-187.
- Trafimow, D. and Finlay, K. 1996. 'The Importance of the Subjective Norms for a Minority of People: Between-subjects and Within-subjects Analyses'. *Journal of Experimental Psychology Bulletin*, 22(8):820-829.
- Traphagan, M. and Griffith, A. 1998. 'Software Piracy and Global Competitiveness: Report on Global Software Piracy'. *International Review of Law, Computers and Technology*, 12(3): 431-447.
- Triandis, C.H. 1980. 'Values, Attitudes and Interpersonal Behaviour'. In H. Howe and M. Page (ed.), *Nebraska Symposium on Motivation*, Lincoln, University of Nebraska Press, 195-259.
- Woolley, D.J. and Eining, M.M. 2006. 'Software Piracy among Accounting Students: A Longitudinal Comparison of Changes and Sensitivity'. *Journal of Information Systems*, 20(1): 49-63.
- Ziegenfuss, D. 1999. 'Differences in Personal Ethical Philosophy among Accounting Students and between Accounting Students and Practitioners'. *Southern Business Review*, 25(1): 1-9.

## Appendix A

**Instructions:** Please answer each statement in 1-27 by **CIRCLING** the number that best reflects your level of agreement with the statements, ranging from “**Strongly Disagree**” (1) to “**Strongly Agree**” (5).

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1. I believe that there is a chance of getting caught pirating digital media	1	2	3	4	5
2. I believe that digital piracy is a crime	1	2	3	4	5
3. I believe that I will save money by pirating digital media	1	2	3	4	5
4. I believe that artistes/developers/firms will lose money because of digital piracy	1	2	3	4	5
5. I believe that digital piracy is convenient to do	1	2	3	4	5
6. I believe that digital media is overpriced	1	2	3	4	5
7. People who make copies of digital media they did not purchase are dishonest	1	2	3	4	5
8. There is nothing wrong with giving friends copies of my digital media as long as I do not charge them for it	1	2	3	4	5
9. I would feel guilty if I copied digital media I had not purchased	1	2	3	4	5
10. There is nothing wrong with pirating digital media since most people have limited financial resources	1	2	3	4	5
11. I think the original artistes/developers/firms should be properly rewarded for their efforts	1	2	3	4	5
12. I feel like I am stealing from the original artistes/developers when I buy, sell, download or freely distribute digital media	1	2	3	4	5
13. If people pirated work that I had created, I would feel that they were stealing	1	2	3	4	5
14. I will pirate digital media in the future	1	2	3	4	5
15. I intend to pirate digital media in the future	1	2	3	4	5
16. It is likely that I will pirate digital media in the future	1	2	3	4	5
17. I expect to pirate digital media in the future	1	2	3	4	5
18. A person should make certain that their actions never intentionally hurt another, even to a small degree	1	2	3	4	5
19. One should not perform an action which might in any way threaten the dignity and welfare of another individual	1	2	3	4	5
20. Deciding whether or not to perform an act by balancing the positive consequences of the act against the negative consequences of the act is immoral	1	2	3	4	5
21. The dignity and welfare of people should be the most important concern of any society	1	2	3	4	5
22. Moral actions are those that closely match ideals of the most “perfect” action	1	2	3	4	5
23. There are no ethical principles that are so important that should be a part of my code of ethics	1	2	3	4	5

24. What is ethical varies from one situation and society to another	1	2	3	4	5
25. Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person	1	2	3	4	5
26. Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual	1	2	3	4	5
27. Moral standards are simple personal rules which indicate how a person should behave, and are not to be applied in making judgements of others	1	2	3	4	5

**Instructions:** Please answer each statement in 28-32 by **CIRCLING** the number that best reflects your level of agreement with the statements, ranging from **“Strongly Disagree” (1)** to **“Strongly Agree” (5)**.

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
28. There is weak enforcement of anti-piracy laws	1	2	3	4	5
29. There is a lack of anti-piracy campaigns	1	2	3	4	5
30. I know people who can help me to pirate	1	2	3	4	5
31. I know how to access digital media that can be pirated	1	2	3	4	5
32. Digital media protection is insufficient	1	2	3	4	5

**Instructions:** Please answer each statement in 33-36 by **CIRCLING** the number that best reflects your level of agreement with the statements, ranging from **“Very Unimportant” (1)** to **“Very Important” (5)**.

	Very Unimportant	Unimportant	Neutral	Important	Very Important
33. How important is the fact that you may get caught pirating digital media	1	2	3	4	5
34. How important is it that pirated digital media might not work as well as the original	1	2	3	4	5
35. How important is convenience to you in pirating digital media	1	2	3	4	5
36. How important is the price of digital media in your decision to pirate	1	2	3	4	5

**Please provide the following information to assist us in our analysis**

**Gender:** Male          Female

**Age** \_\_\_\_\_

**Marital Status:**    Single          Married          Divorced

**Highest level of education attained:**

Primary	Secondary	Technical/Vocational	A-
Level/Assoc. Deg.			
Bachelors	Postgraduate Diploma	Masters	PhD

**Occupation** \_\_\_\_\_

**Monthly Income:** \_\_\_\_\_

## Planning for Tourism Resilience in the Caribbean

*Carolyn Hayle, Diaram Ramjee Singh and Allan Wright  
University of the West Indies, Mona Campus, JAMAICA*

### **Abstract**

Because of significant entry barriers to other markets most Caribbean countries, given their natural resource endowments, gravitated towards tourism as a development option. For some time now tourism has emerged as a very important economic activity within these destinations. After decades of tourism the industry has failed to provide the kind of impetus that would lead to a structural transformation of these economies. We argue that this failure was due partly to the continued dominance of the industry by the industrialised world and partly to a lack of understanding of the global tourism system which is driven by specific demand and supply factors which are determined by the tourism business cycle. The continued reliance of the region on tourism as an instrument of economic development would require a rethinking and restructuring of the methodology on which the industry development is premised. In addition, we discuss potential strategies for further development of tourism so that it becomes more resilient.

**Keywords:** Caribbean, tourism system, development, markets, transit routes, destination

## **Introduction**

Small island nations, such as those in the Caribbean, have to find new points of competitive advantage in an increasingly complex and dynamic international market place. Lack of scale and transport costs effectively preclude many options, but tourism, which is now the Caribbean's largest industry, has considerable scope for further expansion. As the region's dependence on tourism is likely to increase, it is critically important that the industry should serve as an engine of a wider process of development, and that negative environmental and social costs are minimised.

The travel and tourism industry is now the largest and most important component of the Caribbean economy. In spite of this, many Caribbean nationals remain ambivalent about the industry. This is partly because tourism's contribution to the gross domestic product of most Caribbean nations has grown and, over the last decade, has become the dominant sector in many Caribbean economies. Yet the average living standards for those same islands for the corresponding period have not risen to the same extent. The issue of increasing dependency on tourism has become vital for a number of developing countries that have relatively few alternatives for economic development. The Caribbean is especially vulnerable, because five Caribbean States are in the top twenty nations in terms of the percentage of total employment that is related directly or indirectly to the industry. In Antigua and Barbuda, for example, some ninety-five percent (95%) of all employment is related, directly or indirectly, to the travel and tourism industry. Jamaica is currently the fifth most dependent economy in the Caribbean (Clayton et al, 2004). The major cause for concern is that any down-turn in the tourism sector has a markedly negative effect across the entire economy. In addition, in 2005, seven Caribbean nations were among the ten most indebted emerging markets in the world, with public debt now the main crisis facing the region (Rambarran, 2005). The need for diversification and repositioning becomes clearer given the existing situation in the Caribbean.

In this paper, we present, for consideration, a possible new approach to managing tourism to increase the flow of revenue and to ensure a wider and deeper distribution of benefits while simultaneously stimulating the development of a more diverse set of businesses. The resultant effect is an

increase in gross domestic product growth and a concurrent reduction in the economic vulnerability of the nations concerned. We use the Caribbean, an archipelago, as an example of Small Island Developing States (SIDS) which must not only revisit the management of tourism at a national level but must also consider regional needs when devising national strategy.

### **The Caribbean**

This situation in which the Caribbean finds itself has arisen for positive as well as negative reasons. Climate, beaches, natural beauty and convenient geographical location have enabled many developing countries to build up strong, competitive (at least in the short term) tourism businesses. Tourism is now the largest single source of foreign exchange for many countries. This prominence has been reinforced by the decline of traditional export industries, such as sugar and bananas, leaving many countries without a viable economic alternative (Ramjee Singh, 2006). Significant technology gaps, large capital investment requirements, a general lack of capacity in administrative and technical skills, tariff and non-tariff barriers, and infrastructural deficiencies all represent significant barriers to entry to other potential markets, which means that some of these developing countries now depend largely on tourism as the major engine of economic development and social progress (Commonwealth Secretariat, 1997).

The review of 2005 statistics provides an example of the immediacy of external impacts on the Caribbean. Although visitor arrivals to the region in 2005 reached 42 million (World Tourism Organisation, 2007) the pace of growth (3.6%) was much slower than the two previous years where the growth rates attained were 7.2% and 7.1%, respectively. These figures indicate that the Caribbean registered a decline (or slowing) in economic activity in 2005 which the Caribbean Development Bank attributes to weaker performance in the tourism sector. Both pieces of information coupled with the findings of Clayton et al (2004) point to the urgency of creating new value added products based on strong sectoral linkages.

Sharpley (2002) citing Shaw and Williams (1994, p. 23) argues that one additional reason why tourism growth is uneven is that international tourism is still dominated by the industrialised world, which means that growth in the industry tends to be relatively strongly affected by the larger business

cycle in the developed economies; a broader based-industry would be less markedly affected by events in North America and Europe. The extent of the dominance is reflected in tourism receipts; developing nations received 30.5% of international tourism receipts in 1997, while developed countries received 63.8% (p. 17).

There are four well-defined areas of movement: Europe, North America, the Caribbean, and East Asia and the Pacific (*ibid*). Growth in travel between developed countries does not necessarily imply an increase in growth to developing countries. This point is borne out by Swarbrooke and Horner (2001) who outline the historic developments of tourism in various parts of the world Horner (2001, p.12).

It is therefore critically important that the developing countries that find themselves in this position learn to operate more effectively in increasingly complex, diverse, competitive tourism markets to develop an understanding of the implications of the shifting patterns of global development and trade, and devise effective strategies for becoming increasingly competitive. This requires a much more sophisticated and pragmatic understanding of the global tourism system.

### **Understanding the Global Tourism System**

The tourism system is composed of four elements:

- The tourists from the generating regions
- The transit routes
- The destination
- The industry

Several authors support the notion of a tourism system Liu, 1994; Ritchie, 1993; Valayer, 1999; Richard and Charmichael, 1995. Liu (1994) also points out that these four elements are interwoven in functional and spatial relationships, and that a good business model requires an understanding of the *entire* global tourism system. This is partly because it is important to understand both the demand determinants that push a tourist into a travel decision, and the supply variables that pull the tourist towards choosing a particular holiday destination. Liu (*ibid*) also argues that tourism has a clear business cycle that is usually about six or seven years long, and is fairly well

correlated to the world economic cycle, making it essential to understand the larger pattern of economic development and change in order to be able to effectively manage the industry. The acknowledgement of a six to seven year cycle linked to global patterns underscores the need to decrease dependency on tourism and create strategies that would reduce any cyclical shocks.

Given those constraints, a basic tourism system requires specific interventions in effective and efficient systems at both the macro and micro levels to detect, manage and analyse shifts and changes in market demand, consumer profile, consumer behaviour and general shifts in international trade (this also assumes that appropriate strategies are in place to manage the detected changes).

Jamaica received 2,482,880 tourist arrivals in 2003; making it the third largest destination in the Caribbean for that year. Yet, in the same year, Jamaica ranked seventy-eighth on the world human development index (HDI), a measure of the quality of life within a country. This is a relatively low score, indicating a poor average quality of life, and is noticeably incongruent with the country's prominence and status as a successful tourism destination (especially one that emphasises luxurious leisure and hedonism). This combination of Jamaica's ranking as the fifth most tourism-dependent country in the Caribbean, and third in terms of tourism arrivals, coupled with its seventy-eighth place on the human development index, indicates an urgent need to find a model of tourism that can allow the industry to decrease dependence and vulnerability by stimulating growth in several ancillary sectors, while simultaneously improving the general quality of life for its citizens.

## **Consumption**

Several authors agree that consumption is an integral part of the tourist planning mechanism. Sharpley, 2002; Organisation of Eastern Caribbean States (OECS), 1996; English Tourist Board, 1991; Bramwell & Lane, 1993; Muller, 1994; Clarke, 1999; Basic to the consumption picture are the following key elements:

- Tourism is consumed on site.
- The consumer, and not the supplier, determines the nature of the tourism product.

- Needs, motivation, and expectations are reflected in the consumer behaviour of tourists and it is this that determines the nature and type of tourism development.
- The character of the destination, its overall development objectives and its rate of development reflect not only the destination but more importantly the needs of the tourist.
- The consumption patterns are a relationship reflected as a triangle between the issues affecting tourism system tourist/tourism industry, the local community and the destination environment. Kotler *et al's* (1998) position is that a good marketer can use information about the consumer to reposition his product in such a way that it creates a need for his product in the consumer. In this case the character of the destination becomes that product that will satisfy the consumer's need.

Pearce (1993a, p.307) argues that changes in tourist consumption patterns also occur over a lifetime under the influence of social relationships, life-style changes, various constraints, values and attitudes. Sharpley (*ibid*) says that despite all of those factors there are two consistent elements: motivation to consume and the fact that the world is, increasingly, being driven by the need to consume. This is also the position put forward by Hashimoto (2002) where he notes that western development focuses on high mass consumption and the worship of commodities. More importantly Sharpley (p.307) points out that most generating markets are characterised by a consumer culture and therefore, studies of consumer buying behaviour must be centred on the culture and social character of the point of origin of the tourist. Sharpley (p.312) further emphasises the significance of consumerism by listing a number of factors that influence this pattern. These are:

- Widely available and ever-increasing products
- The popularity of leisure-shopping
- Easily accessible credit facilities
- The emergence of consumer groups and consumer legislation
- Pervasive advertising

Sharpley (2002, *ibid*) indicates that the way in which people consume tourism will very much depend on the manner in which tourism is viewed in their

social circle. As a result, tourism can represent a dream, it can be a shared experience (in that case the destination is secondary to the experience), it can be for the purpose of being identified with a particular destination or as a status symbol associated with prestige or luxury. Sharpley (*ibid*, p.316) maintains that consequently tourists are really only interested in their own pursuits. An understanding of the exact motivating factors in a generating market can be an important element in developing a marketing strategy for a tourism destination in a developing country.

### **Sustainable Tourism Debate**

Much of the debate about sustainable tourism rests on the assumption that tourists will adapt their behaviour to respond to the needs of the destination. Other writers Sharpley, 2002; Tarlow, 2005 disagree. They maintain that tourists have no idea what impact their presence has on a destination and even if they did they would not alter their behaviour as a result Sharpley (2002, *ibid*). Pearce (1993, *ibid*) and Hashimoto (2000, *ibid*) supports this view. In fact the experience in the Caribbean reinforces this argument.

Sharpley (2002) suggests that because tourism worldwide has grown very significantly, there is now a common perception that the industry can automatically spur economic development. This may be partly due to the fact that most economies grew at the same time, possibly supporting the oversimplistic conclusion that one caused the other. Sharpley (*ibid*, p.13.) cites Dieke, (1993) and Roche (1992, p.566) who both claim, “the development of tourism has long been seen as both a vehicle and a symbol at least of westernisation, but also, more importantly, of progress and modernisation. This has particularly been in the case in Third World Countries.”

However, Sharpley questions the nature of the link between development and tourism, and critiques the structure, ownership and control of international tourism. Hashimoto<sup>1</sup> (2002, p.204) extends this critique to the concept of development itself, describing it as a ‘western concept’ (p.204). He notes that there are four distinct cultural/psychological aspects of development:

- Assuming the mental model of the West (rationalisation);

---

<sup>1</sup>Cites Peet (1999: 85-86)

- The institutions of the West (the market);
- The goals of the West (high mass consumption); and
- Culture of the West (worship of commodity).

The authors maintain that most discussions on development centre on Euro-American standards of development. Hashimoto (*ibid*) also points out that measurements of the quality of life and concepts of development in the 21<sup>st</sup> C focus on globalisation and encourage uniformity and homogeneity regardless of the uniqueness of countries and cultures. This approach runs counter to the position taken by the Caribbean Tourism Human Resource Council (CTHRC) which has targeted the uniqueness of the Caribbean as a market differentiation strategy (CTHRC, 2002, p.16) for the region. This signals a need for the Caribbean to develop clear strategies for achieving its goal.

In contrast, the Bali Sustainable Development Project (BSDP) (1994, p.60) suggests three features for sustainable tourism: 1) the continuity of natural resources and production, 2) the continuity of culture and the balances within culture, and 3) development as the process which enhances the quality of life (p.60). A supporting argument is put forward by the Organisation of Eastern Caribbean States (OECS) (1996, p.6) whose definition of sustainable tourism, was adopted by the Caribbean Tourism Organisation, is as follows:

Sustainable tourism is the optimal use of natural and cultural resources for national development on an equitable and self sustaining basis to provide a unique visitor experience and an improved quality of life through partnerships among government, the private sector and communities (p.6).

Southgate and Sharpley cite Hulme and Woodhouse, (2001, p.215) also agree that there can be no discussion on sustainability without a concurrent discussion on “the structures and process of power and authority, cooperation and conflict that govern decision-making and dispute resolution.” They suggest that the idea that governance must be “state-managed and based upon the lines of ‘an idealised notion of western democracy allied to Weberian bureaucracy’ has been largely rejected by development theorists” (*ibid*, p.215). The authors highlight the interplay between social and institutional

capital, which results from the convergence of market forces and community dynamics especially in relation to community conservation issues (*ibid*).

They also state “Appropriate forms of governance therefore lie at the heart of sustainability” (*ibid*). They challenge “western ecological principles” and “long established environmental management tools.” They propose that “sustainability in tourism development lies not in the rigid blueprints of development planning but in recognition and utilisation of local social and institutional capital” (*ibid*, p.255). They also suggest that “sustainability is most likely to occur where local and national interests are respected by tourism development” (*ibid*, p.256). The authors also suggest that the extent to which tourism decision-makers embrace community empowerment and participation will determine their ultimate level of future success. This supports the idea put forward by Sharpley and Telfer (2002) that development is unique and sustainable development can only be achieved at the local levels.

Following on the same line of argument, Jenkins (1991, p.70) suggests that national tourism policy must take the following into consideration:

- The role of government
- Ownership and control
- International vs domestic
- The scale of tourism development
- Integrated vs enclave

Elliott (1997), cited in Telfer (2002, p.125), states that the political ideology of a government can determine the type of tourism a country promotes. More importantly he suggests that government’s management of the public sector is vital for success in tourism. Cuker (2002, p.172) says that for developed countries tourism is a social activity, while for developing countries tourism is an economic activity with significant social consequences: this is an important distinction.

Elliott (1997, p.126) also suggests that public sector management falls into five categories: public interest, public service, effectiveness, efficiency and accountability. Oppermann and Chon (1997, p.14) state that developing country governments can influence tourism development through a combination of fiscal and investment policies vis: investment in general

infrastructure of a destination or region; investment in tourism infrastructure; investment incentive for companies; and by influencing exchange rates. Telfer (2002, p.125) cites Ionides (2002) and identifies an important role for governments: establishing a forum which allows the tourism industry suppliers to coordinate their activities. Telfer (*ibid*) goes on to cite Hall (1994) who outlines seven roles for government in tourism: coordination, planning, legislation and regulation, entrepreneurship, providing stimulation, social tourism and interest protection. Hall (1994, p.125) suggests that it is important to “understand the political process which brought the government to power as well as how the government operates and interacts with interest groups inside and outside of the country.” However, Hall (*ibid*) in Telfer (2002) cautions that governments do not always do what is in the interest of the society and sometimes they impose their will in an arbitrary manner. This suggests that a counterbalance is needed in the form of the private sector to ensure that there is a strong possibility that decision can be taken in the national interest. Telfer (2002, p.162) notes the importance of cooperation and collaboration within the public sector, within the private sector and between both the public and private sectors. He cites Timothy (1998) who outlines four types of cooperation that must exist if there is to be sustainable tourism development:

- Cooperation between the private and public sectors (i.e., hotels and ministries of tourism)
- Cooperation between government agencies (i.e., departments of transportation and commerce etc.)
- Cooperation between different levels of administration (i.e., local, national, regional and international)
- Cross-border cooperation between same-level politics.

He concludes that “borderless cooperation” is necessary for sustainable development.

### **Regional Matters**

Tosun and Jenkins (1996) cited in Telfer (p.114) make the point that the terms tourism region and destination are sometimes used interchangeably but they are not necessarily the same and they must be defined. This is the case in the Caribbean depending on the forum in which the discussion is taking place. Malecki (1997) makes the point that regions, for example

the European Union, can extend beyond national boundaries. He cautions, however, that international issues can be subsets of nation issues. Within the Caribbean, examples of cross border cooperation are four economic/political blocs: Organisation of Eastern Caribbean States (OECS), the Association of Caribbean States (ACS), Caribbean Community (CARICOM) and the Caribbean Single Market (CSM). Many of the issues discussed at these fora are indeed a reflection of national issues.

However, Timothy (2002) notes that some island States are so small that they lack the political power to control their own tourism fate. To extend the reference beyond small islands Morrison (1994) notes that airlines are the key distribution link in travel and tourism and most long-haul transcontinental travel are by air. Citing Cokerell (1997) Sharpley (2002, p.19) makes a strong point that “the structure and control of international travel and tourism industry also limits the ability of destinations to take advantage of free market.” He points to Nepal as an example where its tourism suffered a major blow when a major airline serving that nation decided to cut its flights into that country citing lack of profitability. In the Caribbean, St. Lucia and Grenada are no strangers to this practice and the associated impacts. The issue of air travel is the most striking example of a regional issue that affects the Caribbean.

### **Trade Agreements**

Kakabadse (1994) feels that suppliers of travel and tourism-related services stand to benefit from the General Agreement on Trade in Services (GATS). He bases his argument on the premise that the Uruguay Round brought more order to trade related matters and reinforced dispute resolution matters to make them speedier and more efficient. This suggests a need to fully comprehend the rules. These rules according to Kakabadse will apply to international trade including intellectual property and services. The discussion on intellectual property is closely linked to the issues of branding and product differentiation which have already been shown to be valuable tools for Caribbean competitiveness.

Kakabadse (p.4) explains that prior to this Agreement these issues (dispute resolution and trade related matters) were dealt with under bilateral arrangements and were “therefore exposed to arbitrary intervention and

to limits on their growth potential.” He further explains that the GATS is “the first multilateral, legally enforceable agreement which covers trade and investment in services (p. 4).” According to Kakabadse there are three guiding principles under the GATS: trade without discrimination, protection should be transparent and a stable basis for progressive liberalisation of trade. He emphasises that the key to achieving effective liberalisation rests with market access and national treatment. These elements speak to distribution and differentiation of products. The Caribbean needs to respond cautiously to full liberalisation because areas such as heritage and culture need to be preserved within the context of the trade agreement. Unfortunately, some countries are fully liberalised without understanding the implications of this action. The ultimate result of liberalisation is intended to be: freedom of access to other GATS members and the freedom to establish the types of business appropriate to the types of services they supply. The second result will be freedom from discriminatory regulations. These gains are expected based on the assumption that the countries are ready for competition. This is not the case in the Caribbean.

The GATS is the only multi-lateral trade agreement. It is a complex agreement that offers opportunities but if not understood and planned for it can potentially become another factor that perpetuates the continued dependency of developing countries on their developed counterparts. The GATS was expected to come into effect on January 1, 2005 but is now expected to take effect in 2007. The prelude to the GATS was the Uruguay Round of 1986 so in reality countries have had a reasonable amount of time to prepare for its coming into effect. In the Caribbean, however, there is little general recognition of the potential magnitude of the pending changes.

Smithies explains that the GATS consists of:

- A framework agreement containing basic obligations applying to all member States;
- National schedules of commitments which specify the type and any conditions on market areas provided; and
- A number of annexes which cover the special situations of individual services sector (p.122).

The general focus of the GATS as the name implied is on trade in services. In order to be able to evaluate one product against another or for a consumer to have a basis on which to make an informed purchase, there has to be common

measurement tools. This focuses on standards. Font (2001) suggests that Governments devise a strategy for innovating policy related to standards either in an Annex to tourism or through their scheduled limitations. Font also suggests that currently most standards are contained within environmental issues which relate to the accommodation sector. He further argues that other categories be added in order to appropriately address most forms of the tourism product. In the current environment, tour operators, travel agencies and airlines are, for the most part, untouched by standards because of the peculiarity of the industry. Font (2001, p.1) notes that there are some areas of commonality with respect to standards. These are: measurement of water-energy waste, purchasing policies, and information-education of clients. In other words, these are possible areas that can be used for the management of tourism at the industry level of the tourism system which mirrors some of the quality of life issues. Font's advice is useful for the Caribbean as tourism has been traded very narrowly under the GATS which hampers the competitiveness of the nations of the region.

While much attention has been focused on the GATS because it is the only multilateral trade arrangement in place, there are other trade arrangements such as the Free Trade Agreement of the Americas and Regional Economic Partnership Agreement both of which will affect the Caribbean by 2007. The latter two agreements are bilateral arrangements and without proper structures in place the Caribbean can find itself at a disadvantage as these types of trade arrangements lend themselves to the use of political muscle instead of negotiation.

At the local level, Kalisch (2000) makes some suggestions when she laid out some principles which she feels could lead to "Fair Trade in Tourism." These are:

- Equitable consultation with all stakeholders in the community;
- The use of environmental and social audits to establish and maintain transparency and accountable business operations;
- The development of human capital through employment;
- Training and development of local communities into managerial positions in both the public and private sector as appropriate;
- Investors' adherence to all national, regional and local planning regulations especially as they relate to the environment;

- Fair competition for both local and foreign investors; and
- Shared tourism revenue to ensure benefits to the community as a result of the use of public goods.

### **Integrated Assessment Mechanism**

Diaz (p.28), however, argues that the Caribbean policy community and trade negotiators have to focus on trying to improve the industry, rather than on trying to secure protective measures. Diaz argues that the industry should focus, in particular, on three issues:

- (1) How to foster a more dynamic, efficient and competitive domestic service sector;
- (2) How to encourage more effective access to and use of information networks and distribution channels (this includes air traffic); and
- (3) How to facilitate the free movement of people as service providers (*ibid*).

Thus Diaz argues that the real basis for competition is a well-functioning support sector, which in turn requires adequate infrastructure (telecommunication, transport and public utilities), good public services (health, education and security-related services), and good financial services, professional and other business-related services (consulting management and engineering).

Diaz's approach assumes a public-private partnership, with comprehensive and strategic linkages between product and marketing (*ibid*), and Diaz argues that the 'glue' that binds the partnership together has to be the appropriate and effective use of market mechanisms and strategic business alliances (*ibid*), coordinated under a national Strategic Commercial Policy (SCP). This is essentially similar to the idea of trying to encourage the formation of clusters, but Diaz extends the discussion to include trade agreements that can be used to stimulate production and the development of any competitive advantages of domestic service-supplying firms as a means of increasing participation in international service markets (*ibid*). Diaz argues that a

Strategic Commercial Policy for tourism would resolve into four main goals. These are:

- To retain more of the value added through local firms;
- A faster transfer and adoption of relevant technologies, especially information technologies;
- Achieving a positive balance of payments by decreasing the import component while increasing foreign sales of new services and products; and
- To upgrade local skills with strategic human resource development interventions and thereby decreasing the percentage of foreign staff required.

Diaz also notes, however, that the more developed and economically-diverse countries have a far greater likelihood of retaining value-added. Teo and Hiong Ti (2003, p.287) suggest that globalisation is often seen as a powerful force coming from “outside” but they used Har Pan Villa in Singapore as a case study to show that environments change in response to forces from within. Porter (1990, p. 119) also suggests that the new focus is on competitive advantage. He argues that the traditional approaches to backward and forward linkages have been made obsolete by globalisation, and that backward and forward linkages (relationships with their supplies and vendors) are being substituted by cluster theory which builds on emerging concentrations of companies and encouraging the development of fields with the strongest linkages to, or spillovers within, each *cluster* which Porter (1990) defined as geographic concentrations of interconnected companies, specialised suppliers, service providers, firms in related industries and associated institutions (for example, universities, standards agencies and trade associations) in particular fields that compete but also cooperate.

Porter describes clusters as a fluid grouping of institutions and firms, connected in a wide variety of ways. The connections include supply-chain relationships between suppliers and customers, but the links also include the wider labour pool, consultants, information networks, trade associations, journals and others involved in disseminating ideas, opportunities, capital investments and technologies between firms. Cluster theory highlights externalities, linkages, spillovers and supporting institutions that are central to competition Porter (1990). He further states that clusters increase productivity, innovation and stimulate new business formation and suggests

that the most important factors that influence cluster creation are personal relationships and networks of individuals and institutions. Common characteristics of cluster initiatives are:

- A shared understanding of competitiveness and the role of clusters in competitive advantage;
- A focus on removing obstacles and easing constraints to cluster upgrading;
- A structure that embraces clusters in a nation or state
- Appropriate cluster boundaries;
- Wide involvement of cluster participants and associated interests;
- Private sector leadership;
- Close attention to personal relationships;
- A bias towards action; and
- Institutionalisation (Porter 1990, p. 263-66, cited in Telfer 2002, p. 120).

Cooper et al (2002) argue that destinations need to develop a holistic strategic approach based on their position on the destination life cycle. They extend their argument by developing a strategic framework for sustainability which takes into account not only life cycle stages but also competitive position. The limitation with this approach is that it focuses on one element of the tourism system, the destination, whereas in the case of the Caribbean a complete systems approach is required. The real opportunities are in the tourism system bolstered by policies designed to create a vehicle for moving a well conceived regional negotiated strategy from concept to reality. A suggested application of the system is set out below:

- **Generating markets:** all information related to the visitors, all elements of the tourism product must form part of the negotiating strategy. This is the essence of long term strategic analysis. This information informs policy. These data must be retained by the host region for future trade purposes and new product development.
- **Transit route:** this, along with the information gained from the generating markets, is the essence of the global distribution system. Strategies for manipulating such data for the purpose of marketing and creating new products must be carefully crafted, monitored and evaluated on a continuous basis.

- **Destination:** This is the essential element of creating and maintaining the economic image of the country in the global market place. This is the engine that drives the previously discussed “pull” and “push” factors.
- **Industry:** At this level the market differentiation strategy should be designed around international standards for the purpose of using human and natural resources, the essence of the Caribbean, as a competitive tool.

Telfer (2002, p.55) cites Britton (1982) who refers to a three-tiered structural model of Third World Tourism. His model includes, headquarters, branch offices, small-scale tourist enterprises that he indicated signify the lack of control over tourism by many developing countries. He goes further to point out that many developing countries get locked into international standards and packaging that are designed in developed countries and which do not necessarily fit the needs of the developing country. This control of local and foreign capitalist firms is perpetuated through communications, tourism expertise, product design, pricing and economies of scale (*ibid*). Telfer goes on to explain that because of the inability of the manufacturing and agricultural sectors within the developing countries to control the quality and supply, the dependency on foreign firms and experts continue. A possible solution may lie in the cluster approach. This approach also helps to meet some of the criteria set out for a cluster by ensuring that:

- Information is accessed by all competitors;
- All competitors have access to the same information within the same time frame;
- Training policies that support education and training offered at a minimal cost to the SMEs;
- Linkage between firms is approached in a coordinated manner in order to assist them with volume discounts and efficiencies and this must be facilitated by the public sector; and
- Delivery services are customised to fit the SMEs sizes and needs.

Gollub *et al* (2003) suggest that a regional cluster based approach builds reliance among and between stakeholders (public and private) as they become producers and suppliers to each other. This minimises leakage while

at the same time developing a number of subsidiary industries that would help to absorb the economic downturn when the tourism cycle goes through a low period. A combination of an integrated assessment at the macro level and strategic development of the Cluster Approach at the micro level can yield diverse industries at varying stages of the business life cycle. This according to Gollub et al is the strategy used by successful regions.

By working together in clusters all the members seek the solutions to common goals. The significance of this approach to a region/nation is that it provides a tool with which quality of life of citizens can be measured. These measurements become the barometer for determining whether tourism has moved from merely contributing to the balance of payments to contribution to national development. The following indicators yield the required data:

- Improved prosperity – higher per capita and family income
- Reduced Disparity – lower overall poverty rates
- Enhanced sustainability – improvement in environmental quality (air and water).
- Increased quality of life (increase in housing, health, social services and recreation)

A critical component of the cluster based approach emphasises, according to the authors, “building domestic capacity instead of defending markets” (Gollub et al, 2003). They state that in robust societies where this approach is used the intention is to increase competitiveness through the value chain rather than focusing on import substitutions as a defense mechanism to overall achieve growth.

## **Conclusion**

Changing the Caribbean model of tourism will not be a simple task. As suggested by the OECS report (1996) it would require governments and the private sectors in the sub-region to make tough strategic choices if the regional industry is to improve its capacity to compete globally. The strategic choices include the creation of a level playing field in the domestic market and the building of new capacities among the stake holders through the promotion of innovations and the adoption of new technologies (World Bank, 2000). This indicates the range and depth of changes that are required to ensure that the Caribbean tourism product remains competitive.

Most developing countries try to replicate what they perceive as the international management approach to the development of the tourism industry. Within the Caribbean there is the perception that this approach is homogenous, but as the literature survey shows, development is unique (Telfer, 1996 and Sharply, 2002). Liu's (1994) work on the tourism system shows that this is the model that is applied globally by developed countries to provide a sustainable competitive advantage. The experience of foreign investors, in Jamaica, for example, supports this point.

Although foreign investors have come into tourism using a vertical integration strategy the region has failed to develop a counter strategy to exploit the tourism system. It should be obvious that the Caribbean has significant but untapped points of competitive advantage. The region's close proximity to North America causes it to be heavily influenced by North American culture and its development patterns.

Yet, the Caribbean draws its tradition from at least six cultures, the British, Spanish, Dutch, French, West African and Taino. These cultures have blended together to produce a unique Caribbean culture. The use of this culture would not only create a distinct competitive advantage for the region's tourism product but can, also, become an important social reference point that can influence destination choice in the future.

To create a level playing field the region needs to rely on its competences and integrate horizontally as a counter strategy. Other elements of the model should include events as a pull factor to the destination while ensuring the certification of the supply chain to use our culture and natural resources. This approach to tourism development would create a robust industry that will allow us to be more competitive locally and international because the product is unique and is not easily replicated.

The literature, also, suggests that tourism must serve a specific purpose, whether it is economic, social or environmental, therefore, there must be in place a specific strategy to achieve any developmental goal. In the Caribbean, we have failed to define what the role of tourism is in development. Hence a lot of money is spent without achieving the results expected by the wider economy, while simultaneously failing to carry the sector to a sustainable level.

There is little doubt that tourism contributes to the growth of regional economies but as currently structured these economies are unable to capture the full benefits that the industry has to offer (Ramjeesingh, 2008). This would suggest that the current strategy being pursued might require review and adjustment to ensure that tourism, through available resources develops and provides a continuous improvement in the quality of life in individual Caribbean jurisdictions.

### References

- Bali Sustainable Development Project. 1994. Bali, Indonesia.
- Britton, Robert. 1982. 'Shortcomings of Third World Tourism.' In *Dialectics of Third World Development*. 241-247. Edited by Ingolf Vogeler and Anthony De Sousa.
- Bramwell, Bill and Lane, Bernard. 1993. 'Sustainable Tourism: Contributing to the Debates'. *Journal of Sustainable Tourism*. 7 (1): 1-5.
- Caribbean Tourism Organisation Human Resource Council. 2000. *Building a Competitive Caribbean Tourism Workforce, 2002-2004 Strategic Plan*. Bridgetown, Barbados.
- Clayton, Anthony, Duncan, Neville, Hayle, Carolyn. 2004. *Impact of Trade Liberalisation on Tourism and Environment: An Integrated Assessment Study*. S & E.S.
- Clarke, Colin. 1999. 'Leisure Time Squeeze will hit'. *The Courier*. 175: 44.
- Cokerell, N. 1997. Nepal, *International Tourism Reports*. 1: 40-57. Quoted in Sharpley.
- Cronin, L. 1990. 'A Strategy for Tourism & Sustainable Development. World Leisure and Recreation. 32: 12-17.
- Cuker, J., Norris, J. and Wall, G. 2002. 'Tourism Employment, Perspective from Bali' in *Tourism and Development, Concepts and Issues*. Channel View, Clevedon, 165-201.
- Commonwealth Secretariat. 1997. *Vulnerability: Small States in the Global Societies*. London, Commonwealth Consultative Group.
- Diaz, David. 1994. Strategic Commercial Policies: A Proposal Aiming at Increasing the Participation of Developing Countries in International Tourism Markets" (*translated from Spanish*), World Tourism Organisation, Madrid, Spain.
- Dieke, Peter U.C. 1993. 'Cross National Comparison of Tourism Development. Lessons from Kenya and the Gambia' *Journal of Tourism Studies*. 4 (1): 287-295.
- Elliott, J. 1997. *Tourism and Public Policy*. London: Routledge. Quoted in Telfer, 2002. 125.
- English Tourist Board (ETB).1991. *Tourism and the Environment: Maintaining the Balance*. London: English Tourist Board.
- Font, Xavier. 2001. *Standards for Sustainable Tourism for the Purpose of Multilateral Trade Negotiations*, (paper). Leeds Metropolitan University, United Kingdom.
- <http://www.rainforest-alliance.org/programs/sv/stcs-gats-standards.pdf>>
- Goodwin, G. 1993. 'Managing Eastern Caribbean Tourism for Economic Growth' *Caribbean Finance and Management*. 7 (1&2): 106-130.

- Gollub, James, Hosier, Amy and Woo, Grace. 2003. 'Using Cluster Based Economic to Minimise Tourism Leakages'. WTO Conference, Europe ICF- Global Economic Development Practice.
- Hall, C.M. 1994. *Tourism Planning, Policy, Process and Relationship*. Harlow: Prentice Hall. Quoted in Telfer, 125.
- Hashimoto, Atsuko. 2000. Tourism and Sociocultural Development Issues? In *Tourism and Development: Concepts and Issues*. Edited by Sharpley, Richard and Telfer, David J. 202-230. Clevedon, England. Channel View Publications.
- Hulme D. and Woodhouse. 2001. Governance and the Environment: Politics and Policy. In P. Woodhouse, H. Bernstein and D. Hulme (eds.) *African Enclosures? The Social Dynamics of Land and Water*. 215-32. London: James Currey. Quoted in Southgate and Sharpley, 246.
- Ionnides D. 2002. 'Strengthening the ties between Tourism and Economic Geography: A Theoretical Agenda'. *Professional Geography*. 47 (1), Quoted in Telfer, 125.
- Jenkins, C.L. 1991. Tourism Development Strategies. In Licorish (ed.). *Developing Tourism Destinations*. 61-77. Harlow: Longman.
- Kakabadse, Mario. 1994. 'The General Agreement on Trade in Services: Opportunities for Tourism'. In Seminar on GATS Implications for Tourism. Milan, Italy, 3-9. World Tourism Organisation, Madrid, Spain.
- Kalish, Angella. 2000. *Tourism Concern: Corporate Social Responsibility in the Tourism industry, Fair Trade in Tourism*. Bulletin 2 Corporate Social Responsibility. London, U.K.
- Kotler, Bowen and Makens. 1998. *Marketing for Hospitality and Tourism*. U.S.A. Prentice-Hall, U.S.A. First Edition 1996, Second Edition 1998.
- Liu, Z.H. 1994. 'Tourism Development - A Systems Analysis'. In *Tourism State of the Art*. Edited by C. L. Jenkins, R. C. Wood, P.U.C. Dieke, M.M. Bennett, L.R. MacLellan and R. Smith, 20-30. Sussex, England: John Wiley & Sons Ltd.
- Malecki, E. 1997. *Technology and Economic Development*. 2nd ed. Harlow: Longman. Quoted Telfer, 2002, 116.
- Morrison, James. 1994. 'Tourism Industry Objectives of Liberalisation'. In Seminar on GATS Implications for Tourism, in Milan, Italy, 33-37. World Tourism Organisation, Madrid, Spain.
- Muller, H. 1994. 'The Theory Path to Sustainable Tourism Development'. *Journal of Sustainable Tourism* 2 (3):131-6.
- Oppenmann M. and Chon K. 1997. *Tourism in Developing Countries*. London: International Thomson Business Press. Quoted in Telfer 2002, 20.
- Organisation of Eastern Caribbean States. 1996. *Natural Resources Management Unit, St. Lucia. Report on Planning Meeting on Sustainable Tourism*.

- Pearce, Phillip L. 1993a. 'Fundamentals of Tourist Motivation'. In *Tourism Research: Critiques and Challenges*. Edited by Pearce, Douglas, and Butler, Richard, 113-34. The Netherlands: Routledge.
- Peet, R. 1999. *Theories of Development*. New York: Guildford Press. Quoted in Hashimoto 2002, 107.
- Porter, Michael. 1990. *The Competitive Advantage of Nations*. New York: Free Press. Quoted in Telfer, 2002, 129.
- Rambaran, Jwala. 2005. Debt Crisis Alert. Barbados Business Authority, Barbados.
- Ramjee Singh, D. 2008. 'Small Island Developing States(SIDS): Tourism and Economic Development'. *Tourism Analysis*, 13 (1-8): 629-636.
- Ramjee Singh, D. 2006. 'Import Content of Tourism: Explaining Differences Among Island States'. *Tourism Analysis*, 11 (2): 33-44.
- Richard, Timothy J. and Carmichael, Barbara A. 1995. *Linkages between the Agricultural and Tourism System in Sustaining Rural Development in Jamaica*. University of Montreal.
- Ritchie, Brent, J.R. 1993. 'Policy and Managerial Priorities for the 1990s and Beyond'. Douglas G., and Butler, Richard (eds.). 203-216. In *Tourism Research: Critiques and Challenges*, 30. The Netherlands: Routledge.
- Roche, M. 1992. 'Mega-events and Micro-Modernisation: on the Sociology of New Urban Tourism'. *British Journal of Sociology*. 43 (4): 563-600. Quoted in Sharpley, 13.
- Sharpley, Richard. 2002. 'The Consumption of Tourism'. In *Tourism and Development: Concepts and Issues*. Edited by Richard Sharpley and David J.Telfer, 300. Clevedon, England: Channel View Publications.
- Shaw, G. and Williams, A.M. 1994. 'Individual Consumption of Tourism'. In *Sustainable Tourism*, U.K.: Earthscan Publications Ltd.
- Southgate, Chris and Sharpley, Richard. 2002. 'Tourism, Development and the Environment'. In *Tourism and Development: Concepts and Issues*. Edited by Richard Sharpley, and Telfer, David. J. 231-262. Clevedon, England: Channel View Publications.
- Swarbrooke, John and Horner, Susan. 2001. *Consumer Behaviour in Tourism*. Kent, United Kingdom: Butterworth-Heinemann.
- The World Tourism Organisation. 2001. *Global Code of Ethics for Tourism*. Geneva, Switzerland.
- Tarlow, Peter. 2005. 'Why Tourism Industries Fail'. Part 2, of a two part series. Part 1 appeared in the April edition <<http://www.tourismandmore.com>>. 'Tourism Tidbits'. *Tourism & More's 'Tourism Tidbits'*.
- Timothy, Dallen. 2002. 'Cooperative Tourism Planning in Developing Destinations'. *Journal of Sustainable Tourism*. 6 (1): 52-68. Quoted in Telfer, 2002, 162.
- Tarlow, Peter. 2005. 'Why Tourism Industries Fail'. Part 2, of a two part series. Part 1 appeared in the April edition. <<http://www.tourismandmore.com>>.

- 'Tourism Tidbits'. *Tourism & More's 'Tourism Tidbits'*.
- Teo, P. and Hiong, L. 2003. 'Global and Local Interaction in Tourism'. *Annals of Tourism Research*: 30 (2).
- Tosun, E. and Jenkins, C. L. 1996. 'Regional Planning Approaches to Tourism Development: the Case of Turkey'. *Tourism Management*. 17 (7): 519-31. Quoted in Telfer 2002, 115.
- Valayer, Dora. 1999. 'The Human Dimension of an Expanding Sector'. *The Courier*: 175 (47).
- World Bank. 2000. 'Tourism and the Environment in the Caribbean: An Economic Framework'. *Development Report No. 20453- LAC*. Environment Department.

Serious Crime in Trinidad and Tobago: An  
Empirical Analysis Using Time-Series Data between  
1970-2007

Sandra Sookram\*, Maukesh Basdeo\*, Kerry Sumesar-Rai\*\*  
and George Saridakis\*\*\*

*\*University of the West Indies, St. Augustine Campus,  
TRINIDAD & TOBAGO*

*\*\*Police Service Commission Secretariat, TRINIDAD & TOBAGO*

*\*\*\*Loughborough University, UNITED KINGDOM*

**Abstract**

This paper uses time-series data from Trinidad and Tobago and tests for the existence of a long-run co-integration relationship among serious crime, clearance rate and various socio-economic indicators. The result suggests that policy makers should, when framing policy, put emphasis on the mechanisms that make for strengthening the capacity of the police force to detect crime. Similarly, policy makers can use the results of this study to put systems in place to keep the unemployment rate low and to ensure that individuals have access to educational opportunities that encompass tertiary level education.

**Keywords:** crime, Trinidad and Tobago, time-series, co-integration

## Introduction

Research on the causes of crime has received an enormous amount of attention by sociologists and criminologists (see Merton, 1938; Shaw and McKay, 1942; Sutherland, 1942; Cohen and Felson, 1979). However, Becker (1968) suggested that an individual's decision to participate in crime and delinquency could be analysed through the use of utility theory. The basic assumption of this theory is that an individual is a rational utility maximiser who decides whether or not to engage in criminal activity by comparing the costs and benefits of crime. The seminal work from Becker has been subsequently extended by Ehrlich (1973), who proposed a time allocation model (i.e. individuals have to decide how to allocate their time between legitimate and illegitimate activities) and who was the first to empirically test the economic model of crime. Since the Becker-Ehrlich model, significant theoretical and empirical developments have been made (see, for example, Williams and Sickles, 2002; Grogger, 1995; Witte, 1980) and the incentive-based economic model of crime has been increasingly applied to both property and violent crime analysis.

The primary aim of this paper is to examine the effect of two central variables on the incentive-based economic model of crime on serious crime (that is all crimes carrying a penalty of five or more years' imprisonment for which proceedings have been instituted in the High Court) in Trinidad and Tobago. The two central variables being considered are the clearance rate, which is used as a measure of the ability of the police to solve crimes (or as a general indicator of police performance), and the unemployment rate, which reflects the opportunity for participation in the legitimate job market and the acquisition of legal earnings (see Freeman, 1999). As far as we are aware this is the first study examining aggregated crime data for this unitary state in the Caribbean region<sup>1</sup>, although there are a few studies examining the Caribbean region as a whole (e.g., Forst and Bennett, 1999; Lester, 1999; de Albuquerque and McElroy, 1999) or other single-countries in the Caribbean (e.g. for Jamaica Ellis, 1991 and Harriott 2004). Also, in this study we consider the percentage of females in employment and the percentage of the

---

<sup>1</sup>A recent joint report by the United Nations Office on Drugs and Crime in the Latin America and the Caribbean Region, conducted by the World Bank (2007), revealed that murder rates in the Caribbean region is higher than in any other part of the world. Assault rates, at least based on assaults reported to police, are also significantly above the world average.

labour force with tertiary education; variables that to date have not received a great deal of attention in crime studies (some exceptions are, for example, the studies by Saridakis, 2004; Lochner, 2004; Witt and Witte, 2001; Becker and Mulligan, 1997).

The rest of the paper is organised accordingly. In Section 2 we present the basic theory of deterrence. Section 3 describes the data. Section 4 presents the methodology. Section 5 discusses the results. The final section summarises the findings and presents overall conclusions.

**2. The basic theory of deterrence**

Let us consider a simple model of criminal activity. Individuals choose how to allocate their time (t) between legitimate (t-t<sub>2</sub>) and illegitimate (t<sub>2</sub>) activities in order to maximise their utility (U). An individual’s wealth will depend upon whether or not he or she is caught and convicted. Hence:

$$I_a = W_0 + W_1(t - t_2) + W_2(t_2) - F(t_2) = I_b - F(t_2) \quad (1)$$

$$I_b = W_0 + W_1(t - t_2) + W_2(t_2) \quad (2)$$

with associated utilities  $U(I_a)$  and  $U(I_b)$ .  $W_0$  is the individual’s (exogenous) wealth,  $W_1$  and  $W_2$  are the wealth from legitimate activity and crime, respectively.  $F$  is the monetary equivalent of the punishment if caught.<sup>2</sup>

The individual’s expected utility is a weighted average of his/her utility in the two alternatives states of the world: a) individual is caught and punished;

---

<sup>2</sup>Ehrlich (1973) assumed that  $\frac{dW_1}{dt_1}, \frac{dW_2}{dt_2}, \frac{dF}{dt_1} > 0$ ;  $\frac{d^2W_1}{dt_1^2}, \frac{d^2W_2}{dt_2^2} < 0$ ;

$\frac{d^2F}{dt_2^2} > 0$ . These assumptions are sufficient for diminishing marginal returns to be obtained in both states of the world.

and b) individual is not caught and punished. Thus, the expected utility is given by:

$$EU = pU[I_a] + (1 - p)U[I_b] \tag{3}$$

Where p is the probability of detection and is assumed to be independent of  $t_2$ , Differentiating (3) with respect to  $t_2$  (see Ehrlich, 1973) and setting the results equal to zero gives the following first-order condition for utility maximisation:

$$\frac{dEU}{dt_2} = pU'[I_a] \frac{dI_a}{dt_2} + (1 - p)U'[I_b] \frac{dI_b}{dt_2} = 0 \tag{4}$$

The first order condition for the interior solution is:

$$\frac{W'_2(t_2) - W'_1(t - t_2)}{W'_2(t_2) - W'_1(t - t_2) - F'(t_2)} = - \frac{pU'(I_a)}{(1 - p)U'(I_b)} \tag{5}$$

equation (5) suggests that the individual will be maximising expected utility when the subjective marginal rate of substitution between wealth in state (a) and (b) is equal to the marginal rate of transformation between wealth in states (a) and (b).

The individual will participate in criminal activity if:

$$\left. \frac{dEU}{dt_2} \right|_{t=0} > 0 \tag{6}$$

If someone devotes all time to legitimate activity, then

$I_a = I_b = W_0 + W_1(t)$  and, therefore,  $U'(I_a) = U'(I_b)$ . From (3) and (4) one may obtain:

$$\frac{W'_2(t_2) - W'_1(t - t_2)}{W'_2(t_2) - W'_1(t - t_2) - F'(t_2)} = - \frac{pU'(I_a)}{(1 - p)U'(I_b)} \tag{7}$$

which can be simplified to  $W'_2(t_2) - pF'(t_2) > W'_1(t - t_2)$  suggesting that crime occurs when the marginal expected returns from crime are greater than the marginal return to legitimate work (for further information see Pyle, 1983).

### 3. Data

The data used in this study was obtained from the Central Statistical Office (CSO) of Trinidad and Tobago (see Table 1 for summary statistics).<sup>3</sup> Since time-series data for the clearance rate are only available for serious crime, we restrict our analysis to this type of crime. According to the Central Statistical Office report on Crime Statistics 2006 serious crimes are all indictable offences carrying a penalty of five or more years, for which prosecutions have been instituted in the High Court (see Appendix 1). Although this goes beyond the scope of this paper, we acknowledge that police crime statistics are based on cases that are reported to the police by the public and thus, there might be significant under-reporting of offences (especially violence against women).<sup>4</sup> The logarithms of the variables used in the regression analysis are presented in Figure 1.

**Table 1:**  
Summary Statistics

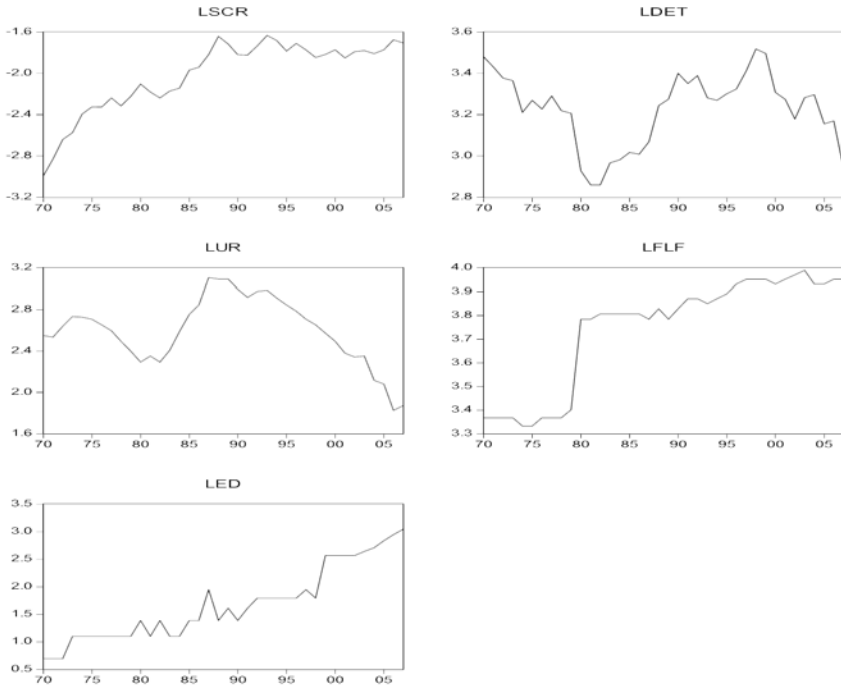
<b>Variable</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Minimum</b>	<b>Maximum</b>
Serious Crime (per 100,000); <i>scr</i>	.195	.041	.050	.195
Rate of Detection (%); <i>det</i>	25.58	4.31	17.45	33.71
Unemployment Rate; <i>ur</i>	14.06	4.25	6.2	22.3
Employed Female Population (%); <i>flf</i>	43.28	9.19	28	54
Labour Force with Tertiary Education (%); <i>ed</i>	6.79	5.19	2	21

*Source:* Table generated by authors using data from the Trinidad and Tobago Central Statistical Office and the Crime and Problem Analysis (CAPA) Unit of the Ministry of National Security. 2008

<sup>3</sup>The crime rates for the last two years (2005-2006) were obtained from the Crime and Problem Analysis (CAPA) Unit of the Ministry of National Security.

<sup>4</sup>Also, some commentators have cast doubts about the reliability of the clearance rate as a statistical measure of police crime investigation activity (see Smit *et al.*, 2004).

**Figure 1:**  
 log of the serious crime rate (lscr); the clearance rate (ldet); unemployment rate (lur); the employed female population (lff); and the labour force with tertiary education (led)



#### 4. Methodology

##### *The model*

Having defined our variables, we are now in a position to present the general form of the algebraic model. The serious crime rate equation can be written as:

$$scr=f(det, ur, ff, ed) \tag{8}$$

The assumption of linearity in the functional form for f is adopted. We use a log linear specification to measure elasticities (log-log model or constant

elasticity model). Thus, equation (8) demonstrates a log-linear specification of the model of serious crime:

$$lscr_t = \alpha_1 + \alpha_2 ldet_t + \alpha_3 lur_t + \alpha_4 lff_t + \alpha_5 led_t + \varepsilon_t \quad (9)$$

where t represents time period and l denotes natural logarithms.

In this paper we are particularly interested in the effect of changes in the clearance rate and unemployment rate on recorded serious crime. The expected signs of the coefficients  $\alpha_i$  ( $i=2$  and  $3$ ) in equation (9) are: (i)  $\alpha_2 < 0$  : the economic model predicts that an increase in the probability of being caught and punished decreases the expected utility of crime; and (ii)  $\alpha_3 > 0$  : the exclusion from legal income opportunities increases the returns to crime. There are some significant empirical studies on violent crime, however, that underline that the basic assumptions of the economic model regarding the deterrence effect and the relationship between unemployment and crime may be more important factors for property crime than violent crime (e.g. Saridakis, 2010; 2004; Raphael and Winter-Ebmer, 2001; Cherry and List, 2001; Entorf and Spengler, 2000). Finally, for the coefficients  $\alpha_i$  ( $i=4$  and  $5$ ) we expect: (iii)  $\alpha_4 > 0$ : the increased entry of women into employment increases the overall supply of workers thus lowering wages, which may in turn increase crime (see Hansen, 2009),<sup>6</sup> and (iv)  $\alpha_5 < 0$ : education increases the returns to legitimate work and raises the opportunity cost of engaging in criminal activity (see Lochner, 1999).

### *Statistical framework*

In order to determine the size of the coefficients in equation (9) we could estimate it using Ordinary Least Square (OLS). However, since many of the variables are dominated by strong time trends as well as possible endogeneity

---

<sup>5</sup>The slope coefficient in a log linear specification shows the percentage change in the dependent variable per unit of a percentage change in an independent variable.

<sup>6</sup>Also, Saridakis (2004) suggested that an increase in the employed female population increase the time spent out of homes and contribute to low parental supervision of children and thus, could be an associated with an increase in violent crime rates. However, this was not supported empirically. Also, one can further argue that a higher female labour force participation reduces guardianship (see theory developed by Cohen and Felson, 1979) which in turns may increase property crime.

between serious crime and clearance rate (i.e. the level of crime determines the workload of the police and thus, the success of solving offences) application of OLS might produce biased estimates of the coefficients. Following previous work (see Saridakis, 2010, 2004; Witt and Witte, 2001; Field, 1999; Hale, 1998; Pyle and Deadman, 1994; Hale and Sabbagh, 1991) we use a co-integrating Vector Autoregressive (VAR) model to surmount these problems.

Specifically, we have used a generalised version of Johansen’s (1991, 1995) maximum likelihood approach described by Pesaran and Pesaran (1997) and estimated an unrestricted VAR model for serious crime in Trinidad and Tobago as follows:

$$\Delta y_t = a_{0y} + a_{1y}t - \Pi_y z_{t-1} + \sum_{i=1}^{p-1} \Gamma_{iy} \Delta z_{t-i} + u_t \quad (10)$$

where  $z_t = (y_t', x_t')$  with  $y_t$  being the vector of jointly determined

(endogenous)  $I(1)$  variables (serious crime and clearance rates) and  $x_t$  being the vector of exogenous  $I(1)$  variables (unemployment rate, employed female population and labour force with tertiary education).  $\Delta$  is the difference operator. The intercept and the trend coefficients are  $a_{0y}$  and  $a_{1y}$ , respectively.  $u_t$  is the vector of serially uncorrelated shocks.

**5. Results**

Before estimation of the co-integrated VAR model, we need to ensure a stationary representation of the model. The Augmented Dickey Fuller (ADF) test is one of the most frequently used tests for unit roots. The null hypothesis is that there exists a unit root or that the series is  $I(1)$ . The results of the ADF test are presented in Table 2.<sup>7</sup> It shows that the null of a unit root of the variables at levels cannot be rejected for any of the variables at the 5% level of significance. However, the series become stationary after first differencing.<sup>8</sup> Finally, given that we have only 38 observations, we use a lag length of 2 in the VAR: we found that there is no evidence of serial correlation in any of the endogenous equations using the LM test for up to second-order serial correlation.

**Table 2:**  
Results of the Augmented Dickey-Fuller test for Unit Roots

Variable(s)	Levels	First Diff.
<i>lscr</i>	-2.87 (0)	-5.20 (1)
<i>ldet</i>	-2.56 (7)	-4.89 (0)
<i>lunemp</i>	-1.65 (2)	-2.23 (2)
<i>lfemale</i>	-1.57 (0)	-5.03 (8)
<i>leducate</i>	-0.76 (4)	-5.72 (3)

Notes: In parentheses are the lag lengths based on AIC. Critical values at the 5% level is -3.544  
l denotes that the variables are measured in natural logarithms.

Exogenous: Constant, Linear Trend

---

<sup>7</sup>We estimate the following regression equation:

$$\Delta X_t = b_0 + b_1 t + \alpha X_{t-1} + \delta \sum_{i=1}^k \Delta X_{t-i} + v_t$$

where k lagged dependent variables are

included in the estimated equation to account for autocorrelation in the error process.

<sup>8</sup>The sole exception is the unemployment variable. However, the Phillips-Perron unit root test, which proposes an alternative nonparametric method of controlling for serial correlation when testing for unit root, suggests that the unemployment variable becomes stationary after first differencing.

We now proceed with the co-integration analysis and present the results based on the trace of the stochastic matrix. This test supports the rejection of the null hypothesis  $r=0$  and indicates that there is one co-integrating relationship ( $r=1$ ).<sup>9</sup> Table 3 presents the results of the co-integration test.

**Table 3:**  
A Co-integration Analysis of Serious Crime

Null	Alternative	Trace Statistics	95% Quantile
$r=0$	$r \geq 1$	42.50*	40.37
$r \leq 1$	$r \geq 2$	13.06	20.47

\*Significant at the 5% level.

The long run relationship among the variables can be summarised in the following estimated co-integrating relation in which the coefficient of *lscr* is normalised to 1 (estimated standard errors appear in parentheses):

$$lscr = -0.85/det + 0.65lur - 0.53lflf - 0.15led + 0.05trend \quad (11)$$

(0.08)
(0.05)
(0.15)
(0.07)
(0.01)

Our findings indicate that during the period under study the detection rate, the unemployment rate, the percentage of females in employment and the percentage of persons with tertiary education had significant impacts on serious crime. Specifically, our results indicate that the detection rate and crime are negatively related, as detection decreases the crime rate increases, providing support for the deterrence hypothesis.<sup>10</sup> Furthermore, we found a positive relationship between unemployment and serious crime; high rates of unemployment indicate a lack of legal income opportunities, and thus serve to reduce the opportunity cost of engaging in criminal activity. This has been also supported by Ellis (1991), who examined annual crime rates in Jamaica for the period 1950-84, and found that high crime is associated with periods of high unemployment.

In contrast to the argument developed in the methodology section, we found a negative relationship between the employed female population and crime. Witt and Witte (2001), examining the relationship between female labour force participation and crime rates in the United States, suggest that an increase in female labour force participation has a positive effect on the crime rate. Similar results were also reported by Entorf and Spengler (2002). It is possible that this result was obtained because an increased employed female population in Trinidad and Tobago, which can be viewed as a labour market improvement, may have raised family income - especially in the case of female-headed households - and, in addition, improved women's structural position in society; a factor which impacts on female crime rates and victimisation. Finally, the percentage of persons with tertiary education had a negative effect on the serious crime rate. This was an expected result since, as noted before, an individual with this level of education would have access to legitimate earnings which increases the opportunity cost of committing a crime.

Furthermore, we estimated the error correction coefficient to be at  $-0.723$  (std. err. =  $0.218$ )<sup>11</sup>, which is statistically highly significant and suggests a quick speed of convergence to equilibrium. Finally, a good test of forecast performance is to examine whether the VAR model predicts the turning points of crime movements. Figure 2 plots in-sample fitted values and out of sample forecasts and suggests that the size of forecast errors and the in-sample residuals are very similar.

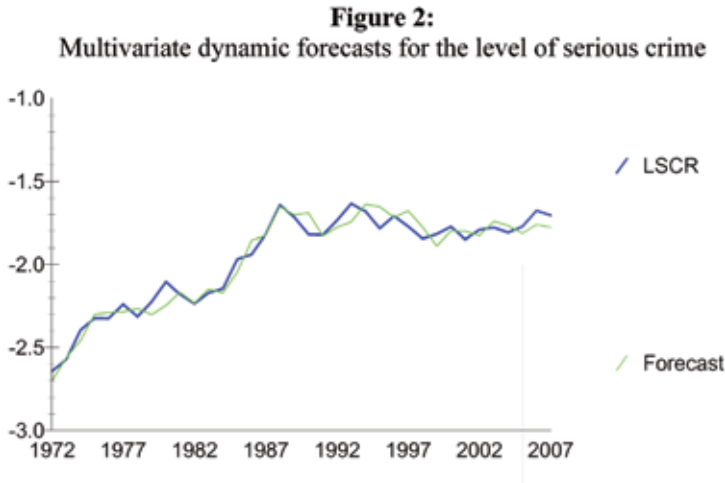
## 6. Conclusions

In this study we empirically examined the effect of the clearance rate, the unemployment rate, the percentage of females in employment and the percentage of the labour force with tertiary education on serious crime in Trinidad and Tobago over the last four decades. Our study concluded that all of these variables were very important in determining the crime rate. Particularly, and in line with the economic theory, we found that the clearance rate, unemployment rate and education variables have negative

---

<sup>11</sup>To examine validity of the assumption of the endogeneity of the clearance rate, we estimated also an error correction coefficient for the clearance rate equation. The coefficient was found to be statistically significant suggesting that this variable has been correctly used as an endogenous variable.

effect on serious crime, which is line with the economic theory. With regard to the clearance rate finding.



Interestingly, we found that rising female employment is associated with reduction in crime, a result that contradicts existing studies that observe a positive association. We suggest that this may be associated with changes in family income and the woman's structural position in the society, but this association needs to be explored further. Even though this result does not accord with that found in other studies, a result such as this, which is particular to the Trinidad and Tobago case, could be of significant benefit. It can serve to provide the basis for the government to adopt gender-specific strategies in relation to women and labour market outcomes.

The results of this research can serve as a starting point to other studies on criminality in the Caribbean region. Future research should distinguish between property and violent crimes (in which case the above factors may behave differently) and explore the role of social capital indicators (e.g. religion and religiosity), alcohol consumption, demographic factors and media on criminal behaviour.

### References

- Becker, G. 1968. 'Crime and Punishment: An Economic Approach'. *The Journal of Political Economy*, 76(2): 169-217.
- Becker, G and Mulligan, C. 1997. 'The Endogenous Determination of Time Preference'. *The Quarterly Journal of Economics*, 112(3): 729-58.
- Cherry, T. and List, J. 2002. 'Aggregation Bias in the Economic Model of Crime', *Economics Letters*, 75(1): 81-86.
- Cohen, L. and Felson, M. 1979. 'Social Change and Crime Rate Trends: A Routine Activity Approach'. *American Sociological Review*, 44(4): 588-608.
- de Albuquerque, K. and McElroy, J.L. 1999. 'Longitudinal Study of Serious Crime in the Caribbean', *Caribbean Journal of Criminology and Social Psychology*, 4(1/2): 32-70.
- Entorf, H. and Spengler, H. 2000. 'Socioeconomic and Demographic Factors of Crime in Germany: Evidence from Panel Data of the German States', *International Review of Law and Economics*, 20: 75-106.
- Ehrlich, I. 1973. 'Participation in Illegitimate Activities: A Theoretical and Empirical Investigation', *The Journal of Political Economy*, 81(3): 521-565.
- Ellis H. 1991. *Report on Research into the Causes of Crime and Violence in Jamaica: a Study of Prison Inmates*. Kingston: National Task Force on Crime and Violence.
- Entorf, H. and Spengler, H. 2002. *Crime in Europe: Causes and Consequences*. New York: Springer.
- Forst B, Bennett RR. 1999. 'Unemployment and crime: implications for the Caribbean'. *Caribbean Journal of Criminology and Social Psychology*, 3: 132-70.
- Freeman, R. 1999. 'The Economics of Crime'. In O. Ashenfelter and D. Card (eds.). *Handbook of Labour Economics*, Elsevier Science, 3529-3571.
- Grogger, J. 1995. 'The Effect of Arrests on the Employment and Earnings of Young Men', *Quarterly Journal of Economics*, 110(1): 51-71.
- Hale, C. 1998. 'Crime and Business Cycle in Post-War Britain Revisited', *British Journal of Criminology*, 38(4): 681-698.
- Hale, C. and Sabbagh, D. 1991. 'Testing the Relationship between Unemployment and Crime: A Methodological Comment and Empirical Analysis Using time Series Data from England and Wales'. *Journal of Research in Crime and Delinquency*, 28: 400-417.
- Harriott, A. 2004. 'The Jamaican Crime Problem: Some Policy Considerations'. In A. Harriott, F. Brathwaite, S. Wortley (eds.) *Crime and criminal justice in the Caribbean*. Kingston: Arawak Publications.
- Johansen, S. 1995. *Likelihood-Based Inference in Co-integrated Vector Autoregressive Models*. Oxford: Oxford University Press.

- Johansen, S. 1988. 'Statistical Analysis of Co-integration Vectors'. *Journal of Economic Dynamics and Control*, 12: 231-54.
- Lester D. 1999. 'Suicide and homicide in Caribbean Nations'. *Perceptual and Motor Skills*, 88(3): 1350.
- Lochner, L. 2004. 'Education, Work, and Crime: a Human Capital Approach'. *International Economic Review*, 45: 811-43.
- Merton, R. K. 1938. 'Social Structure and Anomie'. *American Sociological Review*, 3: 672-682.
- Pesaran, H. and Pesaran, B. 1997. *Working with Microfit 4.0: Interactive Econometric Analysis*. Oxford: Oxford University Press.
- Pyle, D.J. 1983. *The Economics of Crime and Law Enforcement*. London: Macmillan.
- Pyle, D. J. and Deadman D. F. 1994. 'Crime and the Business Cycle in Post-War Britain'. *British Journal of Criminology*, 34(3): 339-357.
- Raphael, S. and Winter-Ebmer, R. 2001. 'Identifying the Effect of Unemployment on Crime'. *Journal of Law and Economics*, XLIV: 259-283.
- Saridakis, G. 2010. *Violent Crime and Incentives in the Long Run: Evidence from England and Wales*. Occasional Papers Series, No. 2, Loughborough University Business School.
- Saridakis, G. 2004. 'Violent Crime in the United States of America: A Time-Series Analysis between 1960-2000'. *European Journal of Law and Economics*, 18(2): 203-221.
- Shaw, C. and McKay, H. 1942. *Juvenile Delinquency and Urban Areas*. Chicago: University of Chicago Press.
- Smit, P.R., Meijer, R.F. and Groen, P.P.J. 2004. 'Detection Rates, An International Comparison'. *European Journal on Criminal Policy and Research*, 10(2-3): 225-253.
- Sutherland, E. H. 1942. *On Analysing Crime*. Chicago: University of Chicago Press.
- United Nations Office on Drugs and Crime and World Bank. 2007. *Crime, Violence and Development: Trends, Costs and Policy Options in the Caribbean*. Report No. 37820. Washington, D.C.: The World Bank.
- Williams, J and Sickles, R.C. 2002. 'An Analysis of the Crime as Work Model: Evidence from the Philadelphia Birth Cohort Study', *Journal of Human Resources*, 37(3): 479-509.
- Witte, A. 1980. 'Estimating the Economic Model of Crime with Individual Data'. *The Quarterly Journal of Economics*, 94(1): 57-84.
- Witt, R. and Witte, A. 2001. 'Crime Causation: Economic Theories'. *Encyclopaedia of Crime and Justice*. New York: Free Press.

## Appendix

### Table A1:

#### Classes of serious crime defined

---

**Class I** - These are serious offences against the person, including murder, conspiracy to murder, manslaughter, infanticide, attempted murder, suicide and attempted suicide, written threat to commit murder, felonious wounding, acts causing or tending to cause danger to life, rape and unlawful carnal knowledge, abduction, defilement and procurement of women, child-stealing, burglary, abortion and concealment of birth, and unnatural offenses.

**Class II** - Offences against property with violence, includes blackmail and extortion, breakings and breakings with intent and burglaries, possession of house breaking implements and robberies.

**Class III**- Offences against property (over \$2,000) without violence. These include embezzlement, falsification of accounts, false pretences, fraud and fraudulent conversion, general larceny, larceny of motor vehicles, larceny of postal packets, post office felonies, larceny dwelling house/entering dwelling house by night with intent.

**Class IV** - Malicious injuries to property with intent - these include arson, other malicious damage over \$1,000 (not private dispute) and cattle maiming.

**Class V** – These crimes take the form of forgery and crimes against currency and include forgery (other than currency notes), coinage offences, forgery of currency notes and offences under the Central Bank act and Exchange Control act.

**Class VI** - These are other serious offences and include treason, sedition, perjury, riot, criminal libel, personation, and corruption and firearm offences.

**Class VII** - narcotic offences – these include trafficking and possession of dangerous drugs for the purpose of trafficking.

---

*Source: Trinidad and Tobago Central Statistical Office (2008) Report on Crime Statistics 2006. Trinidad and Tobago: Ministry of Planning, Housing and the Environment.*

## **Commentary**

### **Why Do Prices Rise in Barbados? A Survey of Business Perceptions**

Roland Craigwell and Winston Moore

*University of the West Indies, Cave Hill Campus, BARBADOS*

#### **Introduction**

Inflation is a continuous expansion in the general price level. It is an important area to study on account of its potential adverse effects on the economy. Among other things, inflation can cause the cost of living to increase and the value of investments to fall. Given the wide and varied effects of inflation, the aim of policymakers is to keep the rate of inflation to a minimum. In Barbados, as in most countries around the world, the desire to control inflation has been heightened by a relatively rapid rate of increase in food and fuel prices. Since the beginning of 2008, food prices have risen on average by 8.1 percent while fuel prices were up by 7.2 percent, this compares to 8 and 1.9 percent, respectively, in 2007.

Given the market structure of the wholesale and distribution industry, there is a general perception in Barbados that most of the expansion in prices, particularly food, has been due to price gouging among retailers. In a nationally televised interview on the 14th April 2008, The Rt. Honourable David Thompson, Prime Minister of Barbados had this to say on the issue:

I have come to the conclusion that there is an element of price gouging and the monopolistic structure of Barbados has led to this. We are simply going to do everything in our power to start the process of negotiations with other businesses and enterprises worldwide that

may want to invest in the country in terms of the distributive sector in an effort to bring down prices...

Previous research on the issue of pricing has largely ignored the pricing practices of individual firms and focused on the macroeconomic question: what determines inflation? One of the earliest studies to provide an empirical evaluation of inflationary dynamics in Barbados was Downes (1985). The regression results from his econometric model suggest that the main determinants of inflation during the 1960s and 1970s were import prices as well as institutional factors, such as wage rates, interest rates and tax rate increases. Despite using a somewhat different econometric approach, Holder and Worrell (1985), nevertheless, arrive at similar conclusions to those of Downes (1985): foreign prices are the main determinant of changes in domestic prices, with contributions also from the cost of imported raw materials and trade protection. Building on this early work, later studies also identified productivity (Downes, Holder and Leon, 1987; Downes, et al. 1992), the level of tourism activity (Coppin, 1993), consumer credit (Cumberbatch, 1997) and oil prices (Greenidge and DaCosta, 2010) as additional factors affecting inflation in the country.

There are, however, no studies that have attempted to quantify the effect of factors like shipping costs, port charges and local distribution on the price differential between imported and retail goods. To find similar studies one must look outside of the region. Das and Pohit (2006), for example, quantified the relevant cost resulting from informal trade barriers that impinge upon Indian overland exports to Bangladesh. They conducted a survey of Indian exporters and transporters regarding such factors as the time and cost of different phases of trade transaction. The authors report that the main hindrance to cross-border trade was activity (parking, customs clearance and crossing of the border), followed by unloading. Delays arising from these two factors resulted in additional transshipment costs amounting to 10 percent of the shipment value.

Due to its importance to the economy, this note provides an assessment of the factors that have historically driven the pricing practices of firms. Unlike previous research done for the island, it attempts to quantify the impact of various factors such as shipping costs, port charges, and local distribution on the price differential between imported and retail prices. Our modus

operandi is a survey of business perceptions in relation to inflation. The remainder of the note is structured as follows. After the introduction, Section 2 outlines the methodological framework which is then followed by the results from the survey of business perceptions concerning inflation in Section 3. In Section 4 conclusions are made.

### **Methodological Approach**

To solicit the views of businesses in Barbados in relation to prices, we undertook a survey at fifty-one (51) business houses in Barbados during 2008. Statistical officers from the National Productivity Council visited the business houses and distributed forms to the directors. Participants were given the opportunity to complete the questionnaire independently. Those participants that had any problems were assisted by officers from the Productivity Council.

A paper-based survey approach was used to solicit responses.<sup>1</sup> The instrument collected responses from firms in three main areas: (1) business characteristics; (2) perceptions regarding the determinants of price increases, and; (3) likely trends in prices. In relation to business characteristics firms were asked to self-select themselves into a particular industrial classification, indicate their average annual sales and their current employment. In addition, this section also sought to solicit information on the geographic breakdown of purchases.

The perception questions are evaluated on a five-point scale (1 = ‘strongly disagree’ to 5 = ‘strongly agree’). For example, participants were asked to provide their perceptions of the following statement: “Over the last year, most of the increase in prices of goods has been due to higher import prices.” Business perceptions in relation to the importance of shipping, energy costs, import duties, and mark-ups were also collected. With respect to future trends, the survey solicited responses from businesses regarding possible price changes of purchases and sales, as well as policy initiatives that might reduce prices.

### **Survey Results**

---

<sup>1</sup>The questionnaire is available from the authors upon request.

Table 1 provides some basic business characteristics for the companies surveyed. The database had at least one company from each industrial classification. However, the majority of entities (45 percent) indicated that their primary area of business was manufacturing. Most of the remaining enterprises fell into business services (18 percent), commerce (14 percent) or tourism (12 percent).

**Table 1: Frequencies for Companies Surveyed**

Industry	Number	Percent	Cumulative Percent
Agriculture and Fishing	1	2	2
Manufacturing	22	45	47
Construction and Quarrying	3	6	53
Commerce	7	14	67
Transport and Communications	1	2	69
Tourism	6	12	82
Business Services	9	18	100

In terms of employment, about 45 percent of the companies surveyed employed 51 or more persons. The remainder of the companies surveyed were equally distributed among the other three employment categories: 10 or less persons, 11 to 25 persons and 26 to 50 persons. A similar picture is obtained when size is assessed using company sales: 41 percent of companies had sales of \$5 million or more in the last financial year, with most of the remainder falling in the “between \$100,000 and \$2 million” and “between \$2 million and \$5 million” ranges.

One of the main goals of the survey was to solicit the views of business persons regarding what are the main determinants of inflation. Representatives from each firm were therefore asked to rank on a five-point scale the importance of certain categories of business costs: import prices, shipping costs, import duty structure, energy costs and mark-ups. The summarised results are provided in Table 2. The results provided indicate that most businesses thought that higher import prices were the main reason for the recent rise in prices: 82 percent of businesses either agreed or strongly agreed that increased import

prices were behind the recent escalation in prices. Businesses were also consistent in their views regarding the importance of shipping costs and energy costs: for both categories, over 70 percent of businesses indicated that these items were the main determinants of rising prices in recent years. In contrast, however, most entities were ambivalent regarding the impact of Barbados’ import duty structure and mark-ups on prices. Indeed, the majority of businesses (57 percent) either disagreed or strongly disagreed that higher mark-ups were behind the expansion in prices.

**Table 2: Business Perceptions of Rising Prices (% of Responses)**

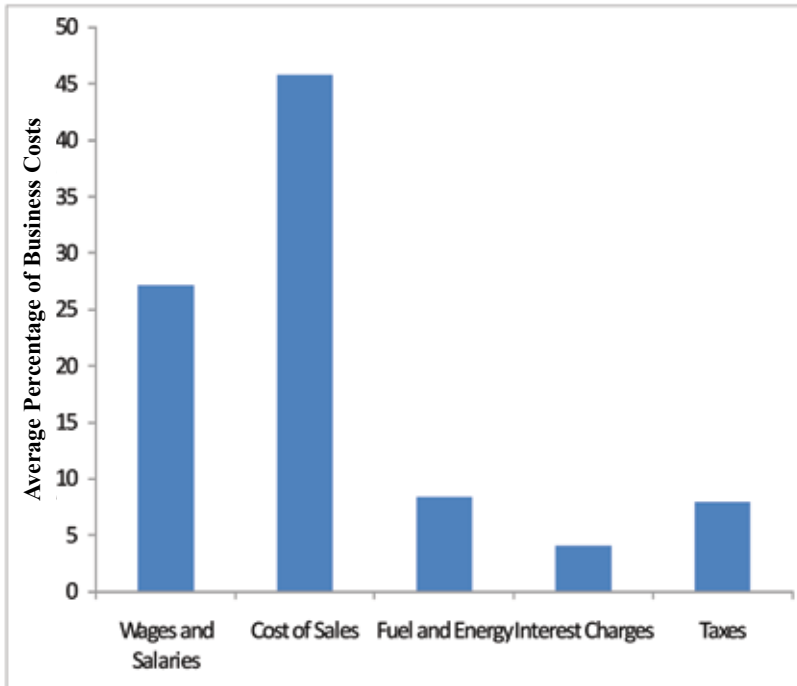
<i>Over the last year, most of the increase in prices of goods has been due to:</i>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree or Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
higher import prices	2	8	8	36	46
higher shipping costs	0	18	12	43	27
Barbados' import duty structure	6	31	20	33	10
higher energy costs	0	4	8	63	25
higher mark-ups	20	37	18	14	12

It is of interest, however, to identify if the views with respect to the determinants of inflation were consistent across various business categories, for example would tourism and manufacturing entities agree to the importance of higher import prices? The survey results (available on request) shows that by and large most entities either agreed or strongly agreed with the statement that increased prices were due to expanding import prices. Only in business services and transport and communications industries was there some degree of ambivalence with respect to this statement. Similar findings were obtained when the results were disaggregated by employment size as well as firm sales.

To identify how important rising import prices are to the average firm, the survey also solicited estimates of the proportion of business costs attributable to wages and salaries, cost of sales, fuel and energy, interest charges and taxes. Figure 1 suggests that cost of sales account for about 50 percent of total business costs for the average firm. As a result, higher import prices, if

it affects this category, would be impacting on approximately half of business costs. Besides wages and salaries, all the other major categories of business costs fell in the 0-10 percent range.

**Figure 1: Main Components of Business Costs**



To validate this hypothesis, Table 3 provides the summary responses in relation to the five major business costs categories considered. The Table shows that 93 percent of businesses stated that cost of sales increased over the past year, while only 7 percent suggested that the prices of their cost of sales did not change. As expected, all the companies surveyed indicated that there was a rise in fuel and energy costs, while more than 50 percent of businesses implied that wages and salaries as well as interest charges had expanded. The majority of enterprises (70 percent) also suggested that their tax liabilities did not change significantly over the past year.

**Table 3: Changes in Business Costs over the Past Year**

	<b>Decrease</b>	<b>Constant</b>	<b>Increase</b>
Wages and Salaries	6	29	65
Cost of Sales	0	7	93
Fuel and Energy	0	0	100
Interest Charges	9	37	54
Taxes	7	69	24

### **Conclusions**

This study provides an investigation of why firms change prices. Unlike previous approaches, the views of actual price setters were sought in order to identify what factors they take into account when setting their prices. By and large, most business persons identified import prices as the main determinant influencing their pricing decisions. In contrast, however, most entities were ambivalent in regards to the impact of Barbados' import duty structure and mark-ups on prices. Indeed, the majority of businesses (57 percent) either disagreed or strongly disagreed that higher mark-ups were behind the expansion in prices.

### **References**

- Coppin, A. 1993. 'Recent Evidence on the Determinants of Inflation in a Tourism-Oriented Economy: Barbados'. *Social and Economic Studies* 42(2/3): 65-80.
- Cumberbatch, C.N. 1997. 'A Model of Inflation in Barbados' in Worrell, D. and Craigwell, R. (eds), *Macroeconomics and Finance in the Caribbean: Quantitative Analyses*. Caribbean Centre for Monetary Studies, St. Augustine, Trinidad and Tobago.
- Das, S. and Pohit, S. 2006. 'Quantifying Transport, Regulatory and Other Costs of Indian Overland Exports to Bangladesh'. *World Economy* 29(9): 1227-1242.
- Downes, A.S. 1985. 'Inflation in Barbados: An Econometric Investigation'. *Economic Development and Cultural Change* 33(3): 521-532.
- Downes, A.S., Holder, C. and Leon, H.L. 1991. 'A Cointegration Approach to Modelling Inflation in a Small Open Economy'. *Journal of Economic Development* 16(1): 57-67.
- Downes, A., Worrell, K. and Scantlebury, A. 1993. 'Macroeconomic Adjustment and the Inflation Experience of Selected Caribbean Countries'. Caribbean Development Bank, Mimeo.
- Greenidge, K. and DaCosta, D. 2010. 'Determinants of Inflation in Selected Caribbean Countries'. Forthcoming in *Journal of Business, Finance and Economics in Emerging Economies*.
- Holder, C. and Worrell, D. 1985. 'A Model of Price Formation for Small Economies: Three Caribbean Examples'. *Journal of Development Economics* 18(2/3): 411-428.

## **Book Review**

**Corporate Culture in the Caribbean: A History of Goddard Enterprises Limited** by Cecilia Karch Brathwaite, (Bridgetown, BARBADOS: Goddard Enterprises Limited, 2008) 270 pages (hardcopy). ISBN 9789768219206; ISBN 9768219203.

The Board of Goddard Enterprises Limited (GEL) commissioned Cecilia Karch Brathwaite to write a ‘history of the company’ to tap ‘valuable, intimate knowledge of the company’ that certain family members had acquired ‘as well as the memories of other living members of the family who had worked in the business’. Brathwaite describes GEL as ‘a ... unique firm, which with great acumen on the part of the founders, rose from a very small grocery shop in the 1920s to one of the region’s largest conglomerates, with investments throughout the Caribbean, Central and South America’. She continues, ‘No other Caribbean firm has this geographical breadth of investments. The fact it was started by very poor white ‘backra’ from ‘Below the Cliff’ in rural St. John, Barbados adds to the uniqueness of the firm. In the Commonwealth Caribbean the majority of the merchant firms that evolved into diversified conglomerates have their origins in the commercial merchant princes of the 19th century’. Those ‘merchant princes’ formed an integral part of the colonial elite, and their wealth was premised principally, either on sugar, cocoa or bananas and the import of finished goods and various materials from North America and Europe. She describes Goddard’s as ‘an example of a variant, of which they are few, but they are very interesting, because they add to our knowledge of the complexity of a racially and class-stratified society and what it took to transcend this’ (2008, p. vi).

Braithwaite observed the ‘expressed desire to avoid detailed footnoting and references’ (2008, p.v); however, the inclusion of Appendices, a bibliography that contains primary sources such as company records, official documents

and reports, handbooks and directories, and other relevant information on the diversification, performance, and achievements of the company, and secondary sources provide the basis for the research. The book's seven chapters also address the international context to show that the concrete experience of GEL and Barbados formed an integral part of the international reality.

Braithwaite chronicles the story of the Goddard family, the early purchase of a plantation, the experience with the racialised class and social status dynamics of the post-war decolonisation process, during which the company diversified its acquisitions and holdings into commerce and tourism, and exploited the incentives and opportunities provided by the decolonising state which systematically deepened the integration of Barbados into international capitalism.

Braithwaite explains how certain bonds of class that connected the 'Redlegs' with the black working class majority were overshadowed by oppressive and exploitative racial, class and social status norms and distinctions that mediated the division of labour on the plantations between poor whites (bookkeepers, overseers) and the mass of black (field) labourers (2008, p.2-4). She says J.N. Goddard faced challenges that reflected the ongoing centralisation and concentration of capital in agriculture and commerce that destroyed many 'smaller wholesale and retail businesses owned by white and black businessmen ...' and aggravated the precarious situation for the 'small farmers, hawkers, neighbourhood shops' and the dependent workers, artisans and others. The impact on the colony of international economic crises intensified the proletarianisation of the majority of black landowners, expanded the ranks of the urban working class, and depressed wages below the social reproduction cost of labour power (2008 p. 6, 8, 9) and strengthened working class struggles for social change.

The Goddards survived the Great Depression, and 'trail-blazed a new business culture ...' within the span of eighteen years (2008, p.18-20 *passim*). During the 1940s, Goddard's acquired grocery businesses and C.F. Harrison and Co (a UK company)—the latter signalled early diversification beyond grocery activities. Government policy to promote tourism favoured the acquisition of leading hotels at a relatively early stage in the development of the industry. Braithwaite explains that the absence of a modern economy did not deter

the company from exploiting technological innovation by ‘following global trends in the various business sectors they were involved in ...’ (2008, p.41). Goddard’s early success came about between the 1920s and 1940s, when less a relative handful in the population had the franchise, and when the anti-colonial movement and the labour movement were in their infancy.

Goddards also benefited from the restructuring of the post-war international order under the Bretton Woods project which facilitated the flow of development assistance to the colonies (2008, p.36-39). Braithwaite argues that the second and third generations of the Goddards were socialised as apprentices to run the business in contrast with many other ‘black and white’ businesses whose offspring ‘were educated to be professionals ...’ (2008, p.11). The family business forged ties with rural farmers and others who supplied produce and a variety of animals, poultry and fish, as well as with middle strata consumers that formed an important part of its customer base. They also built close relationships with businesses and the banking sector, and through company and product diversification created a one-stop model for convenient shopping. The acquisition of the Ice House (IH) in Bridgetown helped J.N. Goddard to break through the rigid economic and social barriers the business strata had set up partly to maintain discrimination and exclusion; they also made the IH their business model for importing and adapting the ‘latest technological innovations in the grocery business to Barbados’ (2008, p. 12, 13, 14, 16). Especially certain members from the third generation Goddards entered the family business during the 1950s, armed with academic degrees in accounting, business, industrial relations, personnel administration, hotel administration, and the management of the meat business from mainly North American universities, and they contributed to the modernisation of the retail sector, by introducing to Barbados the American supermarket model (2008, p.41-44).

Under the Democratic Labour Party (DLP) government development strategy, the Barbados Development Board approved plans for an air catering plant in 1966. By 1969 Goddard Enterprises (GE) catering business—Barbados Flight Kitchen (BFK)—had expanded to a 15,000 square foot plant. Braithwaite says the ‘extension of the ‘food chain’ to include airline catering was ... one of the best strategic decisions the company ever made’ (2008, p.45). Over time BFK would service Canadian, British, European, American, and Latin American carriers as well as charter flights from Europe (2008,

p.109-114, p.195 passim). Tourist arrivals expanded from around 18,000 to over 125,000 (1956-1966), via the impetus from the ‘tremendous investment that the Governments of Barbados made’ in modernising infrastructure at Seawell Airport and building the Bridgetown Harbour. Other fortuitous factors—rising incomes and discretionary funds among North Americans and Europeans, the Cuban Revolution, crises in Haiti and the Dominican Republic, and the revolution in air transport—benefited tourism in Barbados as well as Goddard’s (2008, p.45, 58-59, 60 passim).

Brathwaite argues that the arrival in Barbados of leading hotel chains like Hilton and Holiday Inn, the lack of highly trained local staff to manage local hotels, persistent losses, and the need to strengthen its more profitable entities led the company to sell the Crane Hotel and the Marine Hotel. The upgrading of ‘customs regulations’ paved the way for ‘the development of duty-free concessions for visitors who purchased certain items while in Barbados’ and significantly increased GE’s revenues at Harrison’s (2008, p.64, 66). GE’s Harrison’s Electrical Company, Ltd. modernised refrigeration and air conditioning to the benefit of the food, hotel, tourism, and residential housing construction industries in Barbados. The growth of the middle strata fuelled the demand for modern housing and amenities such as electrical appliances and automobiles. The transfer of arable land from agriculture to commercial and residential construction was beneficial to GE, which responded to commercial and residential demand by introducing new product lines at its supermarkets and invested in concrete products, flooring, roofing, rum refining, and the baking business (2008, p.52-53). By 1966, GE was fast becoming ‘a mega enterprise made up of a large number of subsidiaries in various areas of retail and distribution and in tourism’ (2008, p.47).

GE’s expansion into St. Vincent and St. Lucia benefited from professional and family connections the Goddards had cultivated in both islands in business (insurance and banking), and shipping, and Government Service. It soon diversified its holdings, variously becoming an ‘agency for General Motors ...’ and agent for Shell petroleum products and ‘steamship insurance and commission agencies ...’ (2008, p.54-57 passim). By 2000 GE, which had been buying shares in Courtesy Garage Ltd. over several decades, took over the company, selling and servicing automobiles in the island. GE also moved into insurance in Barbados, serving the needs of corporate entities and

strengthening links with overseas insurance interests that made for a smooth transition into financial services which extended to distributive activities and ‘...land, second mortgages and lending ... to the productive sectors of the economy’ (2008, p.205, 206).

Braithwaite considers the implications of the collapse of the Bretton Woods model—the end of fixed exchange rates, currency convertibility, devaluation and balance of payments issues, and the financial and economic impact of the international energy crisis—for Barbados and the Caribbean which were forced to look for alternatives to traditional exports to obviate structural economic decline (2008, p.67-71), around the crisis in manufacturing including the sugar industry and problems in tourism, foreign capital inflows, foreign exchange earnings, unemployment, inflation and recession. She argues that the inability of several black and white firms to ‘adjust to the changes’ made them ‘targets for mergers, take-overs and bankruptcy’. GE, Barbados Shipping & Trading (BS& T), A.S. Bryden’s, R.L. Seale, Plantations Ltd., and K.R. Hunte restructured partly by exploiting certain incentives the state provided to ‘both local and foreign operations ...’, that favoured the ongoing concentration of capital in Barbados (2008, p.73-74).

The DLP government urged the ‘family firms to go public in the direction of levelling the playing field’ to allow ‘a larger number of black Barbadians ...’ to gain ‘access to capital.’ The conglomerates responded to the rise of the Black Power Movement and the new wave of ‘anti-imperialist’ assertiveness across the Caribbean by invoking anti-communist hysteria to bolster support for Barbados’ ‘free market situation’ (2008, p.91-92 *passim*). The DLP Government cited institutional racism and racial discrimination; however, it also enacted the Public Order Act (1970) to signal its commitment to the capitalist accumulation strategy and its rejection of Black Power (2008, p.78-80 *passim*).

Braithwaite interprets the creation of Goddard Enterprises Ltd (GEL) into a public company as a response to the 1970s crisis and a way to bring the family business in line with emerging trends in the region (2008: 75-78). When the international recession hit Barbados during the 1970s, GE’s ‘managing Board’ and the ‘Directors all held ... management positions within the Group’ and functioned as ‘Directors on the various Boards of the subsidiaries.’ A number of them sat on the boards of other companies,

non-profit agencies and government agencies that placed them in a strategic position to anticipate shifts in business practices and monitor government policy toward the private sector (2008, p.80-86). GE created or acquired new product lines (for example cosmetics), partnerships (Barbados Commercial Insurance Co. Ltd.), mergers and acquisitions (Hanschell Inniss/Larsen, Harrison's Electrical and TMR), and diversified its tourism product (duty-free products) and physical expansion (warehousing) (2008, p. 92-93, 97-100, 135, 191).

Favourable developments—investment inflows, concessionary aid, and development assistance funding by USAID, the Caribbean Development Bank (CDB), British and Canadian assistance, and Lomé Convention provisions—accelerated GEL's expansion into the Organisation of Eastern Caribbean States (OECS) economies during the 1980s. GEL participated in organisations that supported the expansion of private capital in the region—the Caribbean Association of Industry and Commerce (CAIC) and the Caribbean Financial Services Corporation (CFSC) that John Stanley Goddard chaired. Those organisations '... funded a large number of small and medium businesses principally in tourism and manufacturing throughout the Eastern Caribbean'; Barbados also benefited from CFSC funding for 'infrastructure, the establishment of essential institutions, critical funds to the public and private sectors and training programs ...' During 1980-1992 and beyond GEL prospered in 'distribution, catering and manufacturing' (2008, p.107-109; 119-123 *passim*).

GEL forged strategic alliances with transnational corporations to enhance its international competitiveness, for example, the sale to the 'Marriott Corporation of a 49% interest in the flight kitchen' for a combination of cash and shares which enabled the company to exploit Marriott's innovative 'financial control system', 'technology, ... standard accounting procedures to track costs and other critical factors, as well as providing training for staff at all levels both in the region and abroad'. It imported Canadian technology, managerial talent and expertise to reorganise the local baking industry, with the predictable effect of accelerating the marginalisation of the small family bakeries. It acquired Canadian technology to build its Smoked Meats Product line which reinvigorated pig farming in Barbados, supplied ingredients for the national school meals program, and expand the business into the wider Caricom market.

It teamed up with the ‘UK wine and spirits distributor, Saccone and Speed Ltd., which was part of Courage Breweries,...’ to transform Cockspur Rum into a successful international label that became a success across the Caribbean and in North America, the UK, and New Zealand (2008, p.116-119 *passim*). GEL turned to an American company for advice to diversify its supermarket retail services. Barbados Flight Kitchen (BFK) expanded to Jamaica and to Antigua where it acquired Pan American Airways flight kitchen company and took advantage of the coming to Barbados of wide-bodied 747 aircraft, and the Concorde (2008, p. 94-97 *passim*). By 1978 GE consisted of Liquor and Wholesale, Hotels, Flight Kitchen and Department Stores, Supermarkets and Shipping, and Manufacturing and Island Operations, having merged ‘... various business cultures’ to enable the company to go public as Goddard Enterprises Limited (GEL), and to navigate the rapids of the global economy.

Within the first few months of becoming a publicly-owned corporation GEL offered 10,259,265 shares to its employees and to the public. It also brought non-executive Directors to the Board, and made ‘corporate strategic planning a central plank of its business model’ (2008, p.101, 102, 146-150). Mindful of Miami’s standing as the *de facto* regional business capital for Latin America and the Caribbean, GEL made Miami BFK’s regional headquarters and the US its ‘corporate executive base outside the Caribbean’, a move that deepened the internationalisation of its corporate culture and broadened Barbados’ foreign exchange base.

Braithwaite situates the contradictions that Barbados and GEL endured during 1981-1987 within the larger international context (2008, p.107-108), when the IMF and World Bank implemented stabilisation and structural adjustment programs (SAPs) to deepen the process of global capitalist integration. By the late 1980s, GEL expanded its shipping and Port activities, manufacturing, and took its catering business into Central America (2008, p.122-128, 134-136). It exploited government incentives to promote capital accumulation in a national environment with a very thin natural resource base, small market, and limited supply of highly trained professional and technical labour. Braithwaite characterises the 1988 to 1994 period as one of ‘economic, political and social uncertainty’ that witnessed deteriorating international debt and financial crises, and the intensification of integration in Europe (EU) and in North America (NAFTA), among other contradictions (2008, p.138, 140-41).

Barbados lost what competitive edge remained in export manufacturing (electronic assembly) and information services, and its tourism and retail sector faced challenges around the ongoing concentration of mainly commercial capital in an overcrowded market. Barbados entered into a SAP agreement with the IMF that aggravated the economic, social, and political contradictions which forced the ‘managers of Goddard Enterprises ... to make ... strategic decisions that would alter the corporate structure and ... direction of the Group’ (2008, p.139, 141-144).

GEL expanded into agro-industrial manufacturing in canning to solidify the meat processing operations, and entered into a ‘joint venture with British Petroleum (BP)’ to produce liquid detergents, insecticides, household cleaning agents, disinfectants and fabric softeners. The GEL-BP venture strengthened its access to the latest ‘technology and administrative and financial practices and controls’; the 1995 acquisition of a 50% share of McBride Caribbean Ltd. to produce and market insecticides in the ‘entire Western Hemisphere’ also signalled GEL’s determination to deepen its roots in regional manufacturing, via closer links with transnational corporations (2008, p.151-156 *passim*).

When CLICO made a bid to acquire Plantations Holding Limited (PHL), GEL’s retail operations were performing poorly; however, its internationalisation strategy was yielding significant returns, with 40% of the group’s turnover being ‘generated offshore’ (2008, p.157-66 *passim*). GEL offered a bid for PHL, aware that popular sentiment in Barbados opposed the alienation of large tracks of arable land to a ‘foreign’ (Trinidadian) company, in the face of rising land prices, a deteriorating national economic and financial crisis that was compounded by balance of payments problems, private investment contraction, rising unemployment, a looming global economic recession, and a leadership crisis within the DLP Government. PHL’s descent into receivership in 1992-93, was indicative of the ongoing marginalisation of the sugar industry and agriculture in Barbados. While GEL’s bid for PHL failed it sold a portion of its underperforming assets to Trinidad and Tobago’s Colonial Life Insurance Company (CLICO), which acquired PHL.

Brathwaite stresses that the collapse of the Bank of Credit and Commerce International (BCCI) in July 1991 came at a difficult time for the government, private capital, and consumers in Barbados—the government,

the Central Bank, the Barbados Development Bank, and the insurance sector had important financial dealings with BCCI on a scale that put the ‘very foundations of the economy of Barbados’ at risk. Colin Goddard was a GEL Director and Vice-Chairman of The Mutual, which agreed to purchase BCCI’s assets and to guarantee the deposits of Barbadians at BCCI (2008, p.166, 167) which alleviated the fears of the public and enhanced GEL’s hegemonic position in the political economy.

The author discusses the negative impact of privatisation on the Sandiford administration, widespread worker discontent and popular dissatisfaction over the relationship between the Barbados Government and the IMF (2008, p.169-171). In the face of the call for ‘economic enfranchisement’ GEL supported a request by the DLP administration to the private sector for a financial rescue package to moderate the impact of the financial crisis. Subsequently GEL joined with the Opposition, the trade unions and business organisations in calling for the resignation of Prime Minister Sandiford (2008, p.172-73), protecting its flank on both counts. GEL expanded its operations in the harsh economic climate of 1992-1993, by entering the poultry business, forming Bridgetown Cruise Terminals in anticipation of the expansion in cruise passenger services at the Bridgetown Port, strengthening its role ‘as agents for various cruise and cargo shipping lines’, providing a range of services ranging from immigration to customs, and supplying staff and other resources to cruise and cargo ships. GEL dominates in the cruise ship and cargo sector (2008, p.174, 190, 191). Sky Chefs acquired Caterair and formed a joint venture with GEL that resulted in the ‘largest airline caterer in the world ....’ By 2000 GEL was operating catering operations across the English-speaking Caribbean, St. Maarten, in Central America (Belize, Guatemala, and El Salvador), and in half a dozen South American countries, while contributing to the supply of foreign exchange earnings in Barbados (2008, p.193-195; 230-231 *passim*).

Leading members of the Goddard clan helped to shape the trajectory of the hegemonic regulation of Barbadian civil society. John Stanley Goddard, Chairman of GEL Board, was also President of the Chamber of Commerce, board member of CAIC, Coordinator of the private sector organisations, member of the Foreign Exchange Committee, a lifetime promoter of corporatist harmony among the Government, private capital, trade unions and civil society, and a ‘member of the National Committee for Reconciliation

which investigated race relations in Barbados.’ Colin Goddard’s membership on a number of boards—Sagicor, CAIC, and Mutual Bank, now Butterfield Bank—and his chairmanship of the Security and Exchange Commission, and Richard Goddard’s membership in agricultural organisations (Barbados Agricultural Society and the Pig Producers Association) did not hurt GEL. Patrick Mayers chaired the BIDC and was a Director of the Central Bank and Chairman of the West Indies Rum and Spirits Producers Association for many years (2008, p. 176, 178, 196-97).

GEL’s participation in the shaping of public policy in Barbados offers useful lessons in how corporate capital strategically mediates relations between the state and civil society, and dispels the myth of the neutral administrative state in society. In the production of hegemony the dominant interests enlist allies and subordinates into arrangements in which they consent to their subordination in return for unequal benefits. GEL adopts a philanthropic profile in Barbadian civil society that benefited cricket, anti-segregation, and popular culture (2008, p.33-35, 115). It contributed to the modernisation of Kensington Oval, when the West Indies Cricket team was achieving international prominence (2008, p.50-51). GEL also supports ‘team sports, ... culture and the arts, charities and non-profit organisations, ... scholarships and other educational assistance’, and contributes to the ‘development of institutions ... such as the University of the West Indies, the Barbados Institute of Management and Productivity ... and the Junior Achievement Programme’ and ‘national and community service’, and sponsors an array of popular cultural activities that include among others the Crop-Over Festival, ‘calypso tents, ... Kiddie’s Kadooment, ... calypsonians and Mas bands’ (2008, p.196, 200), all of which contribute to its bottom line. Hegemony is always subject to contestation!

Braithwaite discusses the impact of financialisation and globalisation on Barbados and GEL between 1995 and 2000, when the US economy accumulated ‘huge US liabilities to foreign nations in the US’, a sign of a lack of productive investment opportunities in brick and mortar in mature capitalist societies like the USA. The Barbados economy grew at 3.6% in the face of the impact of trade liberalisation that took its toll on manufacturing (electronics, informatics, food and beverage processing) and services (tourism) and other areas into which GEL had expanded (2008, p.181, 192, 193). Braithwaite’s analysis shows that GEL also embraced neoliberalism

partly through its direct contribution of \$100,000 to support the work of the Regional Negotiating Machinery (RNM) - the Inter-American Development Bank, the CDB and Caricom governments and regional private sector provided the US\$5 million that was required to keep the RNM afloat between 1995 and 2000 (2008, p.183-185 passim).

GEL sold unprofitable ventures (Concrete Products and Tropical Batteries), and expanded into activities that 'provided wide range of specialty products for the hotel sector' and strengthened its distribution operations and improved its position in the duty-free sector (2008: 185-188 passim). By 2000, only 'three members of the Goddard family' continued as directors and senior management, with the 'day to day control of the company' moving 'away from the ... family' (2008, p.84-92, 208, 219-229 passim). GEL's internationalisation strategy set it apart from most Barbadian and West Indian family businesses that remain largely insular, conservative, and predisposed to low risk tolerance. Braithwaite emphasises that the strategic alliances GEL forged with foreign companies prepared it for expansion and 'off-shore diversification' (2008, p.215, 216).

Braithwaite notes that GEL continues to experience major challenges in the catering business that made it a competitive international player—it faces pressure from the relentless restructuring in the global airline industry, for example, the downgrading of meals served on flights, the elimination of meals on short flights, and other cost cutting initiatives conditioned by rising energy cost (2008, p.231-236). Braithwaite provides limited coverage of gender issues within GEL. Patriarchy and the 'man question' have been hegemonic in the society, always facing more or less resistance and readjustment. The appointment of a handful of women to certain positions was consistent with the assignment of gender roles based on male dominance in the company and the wider society. Few women sat on the Board of Directors during 1980-2002, and a few were on the Management Committee during 1996-2003 (2008, p.239-249). Of course, while female presence might 'progress' it would not necessarily signify a change in power relations, and unless females moving up the authority ladder bring anti-patriarchal consciousness and the wherewithal to undermine patriarchy.

## Assessment

Corporate culture rests on the regulation and subsumption of labour under capital around the transformation of the means of production for the ends of private accumulation. Emphasis on fairness and company loyalty (2008, p.201, 220) can mask exploitation and inequality under capitalism, where social relations between humans resemble technical relations between things, and labour has to produce capital as the precondition for its own reproduction. Contextually, individual rights, freedom, equality, democracy, and justice presuppose capital's right to exploit labour in the process of production which makes rights and democratic values largely de-ontological. The hegemony of capital contrasts with labour's resistance against the total commoditisation of its existence which involves struggles for better working conditions and to improve skills and the standard of living.

The economy of Barbados has a narrow production base, and employers require limited numbers of highly trained professional and technical workers which limits mobility opportunities for most workers over time. Survival imperatives shaped by insecurity can foster the appearance of company loyalty among employees; however, Braithwaite lists pilfering, shoplifting, and stealing by employees as contributing to low revenues in Goddard's retail business which renders loyalty contingent. Bonuses for employees and annual Christmas parties for company pensioners serve hegemonic ends, partly by eliciting expressions of gratitude saturated with nostalgic reminiscences (2008, p.202-205) about things the way they never quite were. Braithwaite hints at the fact that labour produces its opposite which is capital, in her acknowledgment that the rank and file workers built the company in which many of them rose to senior positions (2008, p.229).

Braithwaite reminds us that J.N. Goddard began when Barbados was one of the wretched 'slums' of the British Empire, with very high infant mortality rates and very low life expectancy rates for males and females, and rampant malnutrition. By 2000, 'per capita income was US\$9280, the infant mortality rate was 12 per 1000 births and life expectancy rates were 79 years. Attendance at primary school was 100%', and Barbados placed 'among the highest developed countries in the world, number 31 out of 173 countries' in the United Nations Human Development Index. In 2000 GEL consisted of 37 subsidiaries, 19 associated companies and several real estate

and investment companies and a labour force of 3000 persons (2008, p.211, 212, 231). GEL has effectively cast its shadow across every important area of the political economy of Barbados. Its sheer market power and hegemonic position in Barbadian society, as well as the strategic linkages it developed across the Caribbean and into Latin America are integral parts of its enviable record of remarkable achievements.

The GEL strategy confirmed that there was no autonomous national development strategy that informed its approach to capital accumulation. Most major companies never develop the technology and innovation strategies required to achieve competitiveness. GEL's approach suggests that it is not impossible for there to be a viable future for forms of export agriculture and manufacturing in Barbados; however, such feasibility would have to rest on dynamic forms of modern science and technological innovation that would reduce the demand for labour in a post-sugar economy. Capitalist production is production for exchange for private capital accumulation rather than subsistence production, and capital accumulation is a heterogeneous global process which means that capitalism is not an assemblage of autonomous national economies that are tethered to territorial states. GEL turned to transnational corporations for modern technology to achieve global competitiveness and boost capital accumulation. GEL also contributed to the industrialisation of agriculture and the modernisation of manufacturing in Barbados via joint ventures and transnational alliances to overcome limitations of resources, technology, market size, skills, capital, and so forth.

GEL did not adopt a bifurcated strategy of national development versus international expansion rather, it defined competitiveness from the angle that capital accumulation at the national level is part of a global process, and it embraced a hegemonic project that connects with popular culture while eschewing economic nationalism. GEL would appear to represent a special case, considering that the author says 'No other Caribbean firm has this geographical breadth of investments'; however, it represents a 'variant' that from fairly early was destroying the very family business model from which it sprung and that lingers on in the Caribbean. GEL also subjected local suppliers to the rhythm and discipline of the market, effectively undermining any misconception of compatibility between capital accumulation and subsistence production.

The book complements *The Rise of the Phoenix (1997)*, the seminal study the author produced with the assistance of Henderson Carter; it also enriches the knowledge base about the company's contribution to the making of corporate culture in the Caribbean. Brathwaite's access to certain 'private' archival material that most Barbadian academics have not been permitted to examine provides her with a certain advantage that reflects the link between power and politics and knowledge in society. The book should appeal to a diverse audience of generalists, technocrats, academics and students.

**Hilbourne A. Watson**

## **Contributors**

**Maukesh Basdeo** of the Department of Behavioural Sciences, University of the West Indies, St. Augustine Campus, TRINIDAD AND TOBAGO.

**Asokore Beckles** is a Statistician in the Barbados Statistical Service department, St. Michael, BARBADOS.

**Roland Craigwell** is Professor in the Department of Economics, University of the West Indies, Cave Hill Campus, BARBADOS.

**Dwayne Devonish** is a temporary Lecturer in the Department of Management, University of the West Indies, Cave Hill Campus, BARBADOS.

**Carolyn Hayle** is Senior Programme Officer, Institute for Hospitality and Tourism, University of the West Indies, Mona Campus, JAMAICA.

**Troy Lorde** is a Lecturer in the Department of Economics, University of the West Indies, Cave Hill Campus, BARBADOS.

**George Saridakis** is a Lecturer in the Business School, Loughborough University, Leicestershire, UNITED KINGDOM.

**Sandra Sookram** is a Research Fellow in the Sir Arthur Lewis Institute of Social and Economic Studies, University of the West Indies, St. Augustine Campus, TRINIDAD AND TOBAGO.

**Kerry Sumesar-Rai** is the Director in the Police Service Commission Secretariat, TRINIDAD AND TOBAGO.

**Winston Moore** is a Lecturer in the Department of Economics, University of the West Indies, Cave Hill Campus, BARBADOS.

**Diaram Ramjee Singh** is a Senior Lecturer in the Department of Management, University of the West Indies, Mona Campus, JAMAICA.

**Hilbourne A. Watson** is Professor in International Relations, Bucknell University, UNITED STATES OF AMERICA.

**Allan Wright** is a Lecturer in the Department of Management, University of the West Indies, Mona Campus, JAMAICA.

**Bildner Center for Western Hemisphere Studies  
Cuba Project  
The Graduate Center, City University of New York**

International Symposium

**Cuba Futures**

**Past and Present**

**March 31 – April 2, 2011**

*Call for Papers*

Since the early part of the nineteenth-century, Cuban intellectuals, political leaders, civil society organizations and institutions have created multiple visions, projects and blueprints for building an independent Cuba. External and transnational groups, including governments, have also participated in creating ideas for shaping or improving Cuban society. These efforts continue today. Past or present, these visions and agendas can often clash with each other, fail to attract support, or be unsuccessful in inducing change perceived as desirable. However, they have generated legacies that stand and shape realities, memories, perceptions, and diverse movements for reforming Cuba.

This international symposium invites interested academics, both young scholars and established specialists, to submit paper and panel proposals on actors, processes, ideas, institutions, and prospects/outcomes in these efforts. The symposium is organized by the Cuba Project at the Bildner Center for Western Hemisphere Studies (The Graduate Center, CUNY). The Cuba Project welcomes participation from academic, artistic, and professional institutions and endeavors. Papers can explore a wide range of historical and contemporary themes and contexts. Written by academics and other scholars, they may illuminate the visions, processes, institutions, civil society organizations, social movements, and other actors operating or focused on various contexts and futures.

**The list of possible ideas for sessions, papers, and special events include:**

***Historical Contexts:***

- Revolutionary period and future dynamics: Cultural, economic, and political dimensions
- Republican Cuba (1902-1959) and 19<sup>th</sup> Century

***Themes:***

- Creation and demise of utopias and paradigms
- Cultural spheres: Literature, cinema, arts, photography
- Intellectuals and knowledge
- Diverse substantive and policy areas: Racial & Ethnic Relations, Identity, Education, Health, Environment, Economic reform, Political organization and Democracy
- Cubans living abroad and ‘diasporic’ communities
- Transnational actors and processes
- Political mobilization, civil society, state-society relations
- Havana and other cities through history, including the character of the culture, politics, cosmopolitanism, geography
- Issues about socialism, post-socialism, and participation
- Afro-Cuban culture and society
- New voices and approaches, young scholars
- US-Cuba Policy Issues
- Technology and internet networks in Cuban cyberspace

**\* We welcome ideas, papers, and panels about these and other themes and contexts\***

**Proposals** should consist of a 1-2 page abstract of the proposed paper or panel, with a cover letter indicating the author’s professional affiliation, biographical sketch and contact information. (Note: Panel proposals must include an abstract and author information for each proposed panelist and paper.)

**Submission:** Please send proposals by email to: [cubaproject@gc.cuny.edu](mailto:cubaproject@gc.cuny.edu); or via fax to: 212-817-1540. Or send a hard copy in a sealed envelope to:

Bildner Center for Western Hemisphere Studies,  
Attention: Cuba Project  
365 Fifth Avenue, Suite 5209  
New York, NY 10016-4309  
United States.

**Deadlines:** We *strongly* encourage early submission. Proposals for sessions, papers, and special events will receive preliminary assessment as they arrive. In any case, final deadlines are as follows:

Proposals for Sessions and Special Events: December 31, 2009  
Paper Proposals: July 31, 2010  
Completed Version of Accepted Papers: November 24, 2010

For updates and further information visit <http://web.gc.cuny.edu/bildnercenter/cuba/events.shtml>, and for general information about the Bildner Center visit [www.bildner.org](http://www.bildner.org).

**Please send comments and inquiries to [cubaproject@gc.cuny.edu](mailto:cubaproject@gc.cuny.edu).**



Bildner Center for Western Hemisphere Studies  
The Graduate Center, CUNY  
365 Fifth Avenue, Suite 5209  
New York, NY 10016  
Phone: 212.817.2096 | Fax: 212

## Information for Contributors

### Presentation

Most articles submitted for publication should be less than 6000 words, with an abstract of no more than 100 words, setting out the main concerns and findings along with key words of the article. Authors should submit:

- a. Two copies of manuscripts including references, with double-spaced typing on one side of each page only; and
- b. Brief biographical notes with full name and associated organization, on a separate page.

It is assumed that authors will keep a copy of their paper. Address all communications and manuscript submissions to: *The Managing Editor, Journal of Eastern Caribbean Studies, Sir Arthur Lewis Institute of Social and Economic Studies, UWI, Cave Hill Campus, BARBADOS*. The telephone number is (246) 417-4478, and the fax number is (246) 424-7291. Upon acceptance of an article for publication contributors should submit a copy of the article on 3 ½ inch disk in Microsoft Word.

### Copyright

Contributors are reminded that the articles are accepted with the understanding that they do not in any way infringe on any existing copyright, and further, that the contributor or contributors will indemnify the publisher regarding any such breach. By submitting their manuscript, the authors agree that the exclusive rights to reproduce and distribute their articles have been given to the Publishers, including reprints, photographic reproductions, microfilm or any other similar reproductions.

### Refereeing of Articles

All articles submitted to the **Journal** will be anonymously reviewed to determine their suitability for publication. The final decision regarding publication rests with the Editorial Committee. Unaccepted articles will not be returned.

### REFERENCES

References to other publications should be cited thus:

a. References to articles:

Author's name (last name followed by initials or first names); the year of publication in brackets; the title of the article (in single quotation marks); the name of the publication (in italics); volume number; issue number (in brackets) followed by a colon; then the page numbers. For an article in a newspaper:  
The name of the newspaper; the year (in brackets); the title of the article (in single quotation marks); the day and month (in brackets) followed by a colon; then the page number (s).

b. References to books, monographs or reports:

Author's name (last name followed by initials or first names); the year of publication in brackets; the title of the book (in italics); place of publication (followed by a colon); name of publisher; page numbers if appropriate.

**Please do not abbreviate the titles of journals and the names of publishers.**

### CHARTS, DIAGRAMS, FIGURES AND TABLES

We prefer essays that can incorporate empirical findings in the overall discussion, rather than an excessive reliance on graphs, tables or appendices. If necessary, we would wish that these be kept to a minimum and be submitted on separate sheets of paper. Please be reminded however of the difficulties associated with reproducing such for our readership.

The Editorial staff reserves the right to make any corrections or alterations considered necessary. Authors will receive two complimentary copies of the **Journal of Eastern Caribbean Studies**.

## CONTENTS

<b>Articles</b>	<b>Page</b>
Real Pirates of the Caribbean: Socio-psychological Traits, the Environment, Personal Ethics and the Propensity for Digital Piracy in Barbados <i>Troy Lorde, Dwayne Devonish and Asokore Beckles</i>	1
Planning for Tourism Resilience in the Caribbean <i>Carolyn Hayle, Diaram Ramjee Singh and Allan Wright</i>	36
Serious Crime in Trinidad and Tobago: An Empirical Analysis Using Time-Series Data between 1970-2007 <i>Sandra Sookram, Maukesh Basdeo, Kerry Sumesar-Rai &amp; George Saridakis</i>	60
<b>Commentary</b>	
Why do Prices Rise in Barbados? A Survey of Business Perceptions <i>Roland Craigwell and Winston Moore</i>	76
<b>Review</b>	
Corporate Culture in the Caribbean: A History of Goddard Enterprises Limited <i>Hilbourne A. Watson</i>	84
<b>Contributors</b>	98
<b>Announcement and Call for Papers – Bildner Center for Western Hemisphere Studies Cuba Project</b>	100