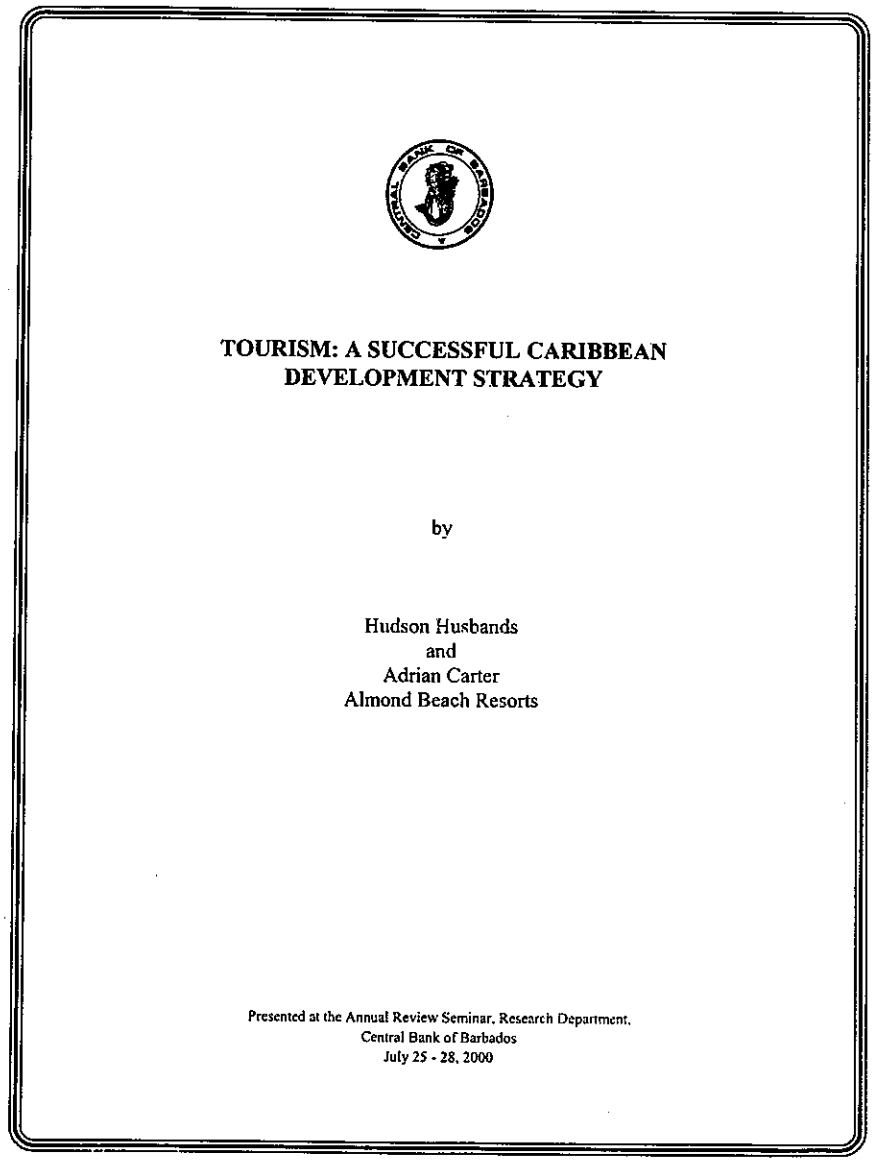

TOURISM: A SUCCESSFUL CARIBBEAN DEVELOPMENT STRATEGY

by

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Introduction

The emergence of tourism as the dominant industry in many Caribbean nations has generated much research on the success of such a strategy on the growth and development of these economies. Much of the empirical research however, has focussed on the industry's contribution to economic growth as measured by gross domestic product (GDP), employment creation, foreign exchange accumulation and governments' revenues. To date, very few empirical studies have been conducted on the contribution of the tourism industry to the development of the quality of life of the region's citizens.

It is from this perspective that a cross-country regression model is utilized to investigate the connection between Caribbean tourism performance and the overall human development of the region. The study begins with a historical overview of the performance of the tourism industry in the Caribbean. Section three identifies the major links between tourism and human development. Section four discusses the data and presents the empirical model to test those

links. This is followed by a presentation of the results of the model in Section five. Section six attempts to show that tourism, through its contribution to human development contributes towards the sustainability of region's economic performance. The paper concludes finally with a brief summary in section seven.

2. Caribbean Tourism Performance

History

The establishment of the Caribbean Tourism Association (CTA) in 1951 signaled the region's awareness of the potential of the tourism industry to generate long-term growth and development. By the 1960's, Caribbean tourism had begun to bloom as it replaced sugar as the main foreign exchange earner in a number of territories. The region's governments soon began to provide generous incentives to attract foreign investment into the industry and further pursued policies aimed at improving the countries' general infrastructure. The effect was an increase demand for Caribbean tourism as airlines expanded their services making the region more technologically and financially accessible to ordinary holiday-makers.

During the 1970's, growth in Caribbean tourism was dampened as international recession reduced the disposable incomes of the region's tourist generating nations and increased transportation cost. By 1975 the industry had begun to recover as improved economic conditions and intensified marketing in the various tourist generating markets brought favorable results. Towards the end of the 1970's the industry faced another temporary slump brought about by the second energy crisis. However the advent of the 1980's witnessed overall growth in the region, which was only temporally weaken in the early 1990's by the Gulf crisis and recession in tourist generating markets.

2.1 Market Performance (1988-1998)

Approximately 1.7 billion stay-over tourists were hosted by Caribbean destinations between 1988 and 1998. Growth over this period fluctuated to an annual average of 5.5%, slightly higher than World tourism. In 1998, stay-over visitors totaled 19.5 million, representing a 70.4% rise over its 1988 figure. Guyana was the only nation that received fewer visitors in 1998 than it did ten years earlier. The rise in arrivals peaked at 10.7% in 1990 but fell a year later to its lowest rate (2.4%) mainly the result of the Gulf crisis and recession in tourist

generating markets (Chart 1). The growth in arrivals were however different across the region. Arrivals to Cuba and the Dominican Republic were 1.2 million higher in 1998 than they were in 1988. Visitors to Jamaica increased by over eighty percent as destinations such as Barbados and the Bahamas grew moderately.

Puerto Rico, the Dominican Republic, the Bahamans and Cuba are considered the most popular Caribbean destinations. Together they accounted for more than fifty percent of arrivals to the region in 1998. Cuba now holds the position in Caribbean tourism that islands such as Barbados, St. Martin and the US Virgin Islands occupied ten years ago. Furthermore, these islands have been outperformed by new destinations such as Aruba, Guadeloupe and Martinique in recent times.

The United States remained the largest tourist generating market to the region despite losing market share. Its share of the market fell from fifty-three percent in 1988 to just under forty-eight percent in 1998. Destinations such as the Bahamas, Bermuda, Puerto Rico, the Turks and Caicos Islands and the US Virgin Islands depend on this market for over seventy percent of their arrivals. Europe, the region's second largest market has been increasing its market share over the years from 11% in 1988 to almost 25% in 1998. Growth during this period averaged 13.6% as it replaced the US as the major generating market in such destinations as Barbados and St. Vincent and the Grenadines. The Canadian market has declined in importance to the region over the period and by 1998 it accounted for only 5.4% of total arrivals. However, this market remained of some importance to Cuba, Barbados, Grenada and the Dominican Republic.

2.2 *Economic Performance*

Tourism earnings to the region grew by more than 132% over the 1988 to 1998. In 1998, Caribbean economies earned $17.9 billion from the sale of tourism services internationally (Table 1). A comparison of tourism receipts with merchandise exports for fifteen Caribbean countries showed that even in mineral-rich countries of Jamaica and Trinidad and Tobago, tourism is an important foreign exchange earner. In many other countries the returns from tourism exceeds those of merchandise exports. Furthermore, it has been estimated that tourism earnings accounted for 25% of the region's

exports in 1988. The contribution of tourism earnings to the Gross domestic product (GDP) of Caribbean economies averaged over 27% in 1998.

Tourism has also contributed significantly towards the reduction in unemployment in the region's economies. According to Mather and Todd, (1993), tourism employed directly an estimated 420,000 jobs in 1990. Excluded from these estimates is employment created by tourism expenditure on the purchase of transportation and entertainment and food and beverage outside the hotel sector. Also excluded is tourism expenditure in the informal sector, which generates employment in the underground economy.

The revenue inflow highlighted above creates business turnover, household income, employment and government revenues. Some of the revenue received by the business establishments, individuals and government is then spent within the economy on items, which contribute towards the improvement of human development.

3. Tourism and Human Development

3.1 Economic Growth and Development

Development is defined differently from economic growth. Economic growth implies the constant creation of enhanced capacity to produce wealth (Lewis, 1955). Measured in terms of gross domestic product levels and rates of increase, such growth is generated by employment, product and service innovation, in addition to export expansion and increased investment. In contrast, development emphasizes productivity and distribution, or the creation of optimal capacity to challenge human abilities, as well as to satisfy human needs and desires over time (Uphoff and Ilchman, 1972). Building on this concept Smith (1977) and Bromley (1982) implied that the major goals of development are the sustenance of life, self-esteem and freedom in addition to increased welfare and enhancement of the quality of life. Furthermore the first UNDP Human Development Report (1990) states that the basic objective of development is to create an enabling environment for people to enjoy long, healthy and creative lives.

3.2 The Links

The tourism industry contributes to human development (HD) mainly through household and government activities. Here we assume that due to the heavy reliance of the region on the tourism industry, households and government receive a large proportion of their income from participating either directly or indirectly within the industry. They in turn utilize a proportion of this income to purchase items such as food, education and health services, which contributes toward improved human development.

The propensity for households to spend their disposable income on items such as food, education and health services that contribute directly to the promotion of HD depends on factors such as the level and distribution of income across households. Also important is who controls the level of expenditure across households. Generally, poor households spend a greater proportion of their incomes on HD items than those with higher incomes. Similar results have been found for households that are run by females.

The development stage of a country strongly affects the amount of expenditure spent on HD items. It is likely that if poor households receive a rise in income they expenditure on food will increase significantly (Strauss and Thomas, 1995). Empirical evidence for developing countries such as Brazil, Indonesia and Pakistan suggests positive effects of family income change on child schooling (Alderman et.el, 1995). Despite evidence on the relations between income and health is less extensive it has been suggested that household income also has a significant effect on the demand for health.

It also appears that when women control cash income in households, expenditure patterns are geared relatively more toward HD inputs, such as food and education. It has been shown that in the Philippines calories and proteins consumption increased with the share of income accruing to women (Garcia, 1990). In the Cote d'Ivoire, an increase in women's share of cash income was associated with significantly higher spending on food and reduced spending on alcohol and cigarettes (Hoddinott and Haddad, 1991).

The results from the studies highlighted above, as they relate to the behavior of households to a rise in income are quite applicable to the region. This is due to the observation that these nations are at a similar development stage to many Caribbean nations. Also, the level of female controlled households in the Caribbean is quite high. Thus, it can be inferred that a rise in households' income in the Caribbean, which may result from increased tourist expenditure, would lead to increase consumption of HD items in the region.

In terms of the government sector, a substantial proportion of its revenues is accrued through direct and indirect taxation of tourism participants. Such taxes includes income tax, corporate tax, value added tax (VAT), airport and seaport tax, import duties, as well as licenses and permits. Human development items such as health and educational services constitute a significant portion of governments' expenditure in the region. Between 3 and 5 percent of national income is spent by Caribbean governments on health services. Similar amounts are known to be spent on education.

4. Model Development and Data Considerations

4.1 Data

The discussion above led us to a hypothesis about the effectiveness of tourism expenditure in raising HD levels in the Caribbean. To explore this empirically we utilized a cross-country time-series data set. Our data set was restricted to 15 countries, spanning the years 1988 to 1996 due to the lack of a long time series on our development indicator and its unavailability for some Caribbean nations. The fifteen countries included in our balanced panel are, Antigua and Barbuda, Barbados, the Bahamas, Cuba, the Dominican Republic, Grenada, Jamaica, St.Kitts and Nevis, St.Lucia, St.Vincent and the Grenadines, Trinidad and Tobago, Belize, Haiti, Guyana and Surinam.

The human development index from the UNDP, Human Development Reports was employed as an indicator of Caribbean development. The Human development index (HDI) is based on three indicators, namely longevity, education attainment and standard of living. Life expectancy at birth is used as a measure of longevity, while a combination of indicators is used to proxy education attainment.

These includes adult literacy, the combined gross primary, secondary and tertiary ratio, weighted at two to one respectively, in the education index. Real GDP per capita is used as a proxy for the standard of living. The indicators combined to make up the HDI which values ranges from 0 to 1. The HDI value for a country shows the distance that the country has already traveled towards the maximum possible value of 1. The difference between the value achieved and the maximum value shows how far the country has to go.

The explanatory variables of the core model included tourism receipts and receipts from merchandise exports. Tourism receipts was employed as an indicator for tourism development while receipts from merchandise exports was used as an indicator for the export of tangible goods. Data on tourism and merchandise export receipts were drawn from the Caribbean Tourism Organization reports (CTO).

4.2 Estimation Model

The econometric analysis is based on a reduced form model that relates human development to economic activity in the tourism and merchandise export sectors. A standard practice in panel data analysis with time-varying exogenous variables is to specify the development equation as a dynamic serial correlated model (Hsiao, 1986). The variables are entered in logarithm since this transformation results in regressions that yield directly elasticity coefficients of Caribbean development with respect to the various explanatory variables, making it possible to evaluate the economic importance of the relationships.

The model is the following:

$$CD_{it} = \beta\ CD_{i,t-1} + \delta\ TD_{i,t-1} + \phi\ MD_{i,t-1} + \mu_{it}, \qquad (1)$$

where CD_{it} is the logarithm of the human development indicator (Human development index) for country i at time t and TD is an indicator for tourism sector development, while MD is the indicator for the development of the tangible export sector. The first lags of the explanatory variables were included into the regression equation rather than their contemporaneous values so as to avoid the event of simultaneity bias.

The equation is specified as an error-component model, assuming that the disturbance term consists of two separate components. The first component is time-variant and represents individual country specific effects that cannot be captured by the exogenous variables included in the equation. The second component is the error term that follows the first order autoregressive process, illustrating the fact that shocks to development may take time to die out so that errors are correlated over time. Thus equation (1) can be rewritten as follows:

$$CD_{it} = \beta\ CD_{i,t-1} + \delta\ TD_{i,t-1} + \phi\ MD_{i,t-1} + \alpha_i + v_{it}, \qquad (2)$$
$$v_{it} = \rho\ v_{i,t-1} + \varepsilon_{it}$$

where ε_{it} is white noise.

The model is estimated as a fixed-effects model, implying that each country has its own intercept α_i . Country specific intercepts takes into consideration possible structural and cultural differences of these countries. An F-test on this model significantly rejects the hypothesis of a common intercept and supports the alternative of individual country intercepts. Thus the data is mean-differenced to account for country specific fixed effects. The model is run using EViews quantitative software.

5. Regression Results

The results in Table 2 provide evidence of the direct effect of Caribbean tourism on the development of the region. The coefficients of the tourism variable proved positive and significant in all of the equations. These results support the hypothesis that the development of the tourism sector was a successful Caribbean development strategy. The coefficient of the tourism variables indicates the elasticity of Caribbean development with respect to tourism development since the regression variables are in logarithm. Thus, according to Model 1, a percentage point (1%) rise in tourism expenditure to the Caribbean generates a 0.04% rise in the development of the region as measured by the human development index. The coefficients of the tourism variable for the models comprising only the OECS (0.126) and the Eastern Caribbean islands (0.058) are larger than that of the entire sample. This suggests that tourism is of a greater developmental importance to these territories. Furthermore, when we excluded those countries such as Suriname,

Trinidad and Tobago and Guyana that concentrate more on industrial production from our model, the effect of tourism on development gets even larger (0.689).

The tangible export variable was insignificant at the 10% level in Model 1, which comprised the entire sample. However, for the remaining models its coefficients were significant and positive but its effect on development was notably smaller than the tourism variable. Another interesting finding that can be inferred from the regression results relates to the observation that despite the tourism industry has not been embraced as the primary development strategy in countries such as Haiti and Trinidad and Tobago it still contributes positively their development.

Tourism in Haiti is of little direct importance to that economy. However, indirectly the industry plays a substantial role in the development of the Haitian people. This indirect contribution results from the significant proportion of Haitians that are employed in the thriving tourism industry of the Dominican Republic. The industry improves the human capital of Haitian through training, which it provides. Secondly, much of the employment incomes, which Haitians receive, are used to purchase human development (HD) items for relatives and friends back home. Thus indirectly the tourism industry is of importance to this nation.

In the industrial economy of Trinidad and Tobago, much of the income used to purchase HD items are derived from exports to the Caribbean region. Many of the islands of the Caribbean rely on imports from Trinidad and Tobago for direct and indirect inputs into the tourism industry.

6. Tourism, Human Development & Economic Growth

The discussion above provides evidence to prove that the tourism industry contributes significantly towards the human development of the region. In this section we attempt to show that through its impact on human development, the tourism industry contributes towards the sustainability of region's economic growth as people become healthier, better nourished and educated.

It is common knowledge that HD items alone cannot transform an economy. The quantity and quality of domestic and foreign investment combined with the overall policy environment determine economic performance. However, HD items such as education and health must precede or accompany economic reforms. For example, the quality of policy makers and investment decisions are likely to be influenced by the prevailing level of education. Furthermore, the volume of both domestic and foreign investment will probably be larger as the region's human capital supply becomes more plentiful.

A number of new growth theories have emerged that incorporate HD items such as education into their model to explain growth. Lucas (1988) found that the higher the level of education of the workforce the higher the level of capital gains. This occurred because the more educated are likely to innovate and thus affect everyone's productivity. The rise in education of one household can also generate multiplier effects, in that it can raise the productivity of individuals with whom that household interacts (Perotti, 1993).

The impact of health and nutrition on the productivity of workers is another way in which human development influence economic growth. Improved health and nutrition have been shown to have direct effects on labor productivity (Behrman and Deolalikar, 1987). Thus, through its ability to enhance individuals' capacities, the tourism industry by the way of its impact on human development influences economic growth.

7. Conclusion

This paper provided evidence to support the view that Caribbean tourism is an important determinant of the region's development. The positive relationship between Caribbean development and tourism is documented using the human development index as an indicator of Caribbean development. The results show that higher growth in tourism receipts to the Caribbean will significantly improve the human development of its citizens. The results also show that in some instances merchandise exports also contribute positively to development but to a lesser extent. Thus we conclude that the development of Caribbean tourism has been a successful strategy for the development of its people. Also, tourism through its impact on

human development contributes towards the sustainability of economic growth in the region.

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Chart1.Tourism Arrivals (Grow th)

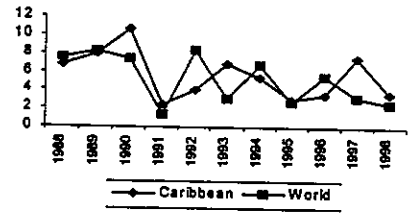

Table 1. Tourism Indicators

Years	World				Caribbean			
	Tourist Arrivals		Tourist Expenditure		Tourist Arrivals		Tourist Expenditure	
	Millions	% Change	Billions (US$)	% Change	Millions	% Change	Billions (US$)	% Change
1988	394.3	7.5	202.6	16.01	11.46	6.7	7.7	-
1989	426.5	8.2	221.2	8.3	12.38	8.0	8.7	13.0
1990	458.2	7.4	267.8	21.0	13.71	10.7	9.8	12.6
1991	464.0	1.3	277.6	3.7	14.04	2.4	10.0	2.0
1992	502.8	8.4	313.6	13.0	14.61	4.1	11.9	19.0
1993	518.3	3.1	323.1	3.0	15.62	6.9	12.3	3.4
1994	553.3	6.8	352.6	9.1	16.46	5.4	13.1	6.5
1995	568.5	2.7	40.3.0	14.3	16.93	2.9	14.0	6.9
1996	599.6	5.5	437.6	8.6	17.52	3.5	15.3	9.3
1997	619.6	3.3	438.2	0.1	18.85	7.6	16.7	8.9
1998	625.1	2.5	439.4	0.3	19.53	3.6	17.9	7.3

human development contributes towards the sustainability of economic growth in the region.

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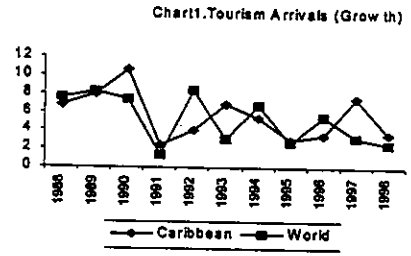

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Table 2. Caribbean Development: effects of other factors

Explanatory Variables	I. Results of entire sample.	II. Results of Eastern Caribbean	III. Results of OECS	IV. Results excluding: Suriname, Trinidad & Tobago and Guyana
Lagged Caribbean development: CD_{t-1} *(Human development index)*	0.459 (6.64)	0.511 (6.62)	0.594 (6.52)	0.551 (7.12)
Tourism development: TD_{t-1} *(Tourism receipts)*	0.041 (3.10)	0.058 (3.09)	0.126 (4.58)	0.689 (4.04)
Tangible exports receipt: MD_{t-1} *(Merchandise exports)*	0.007 (1.23)	0.035 (3.13)	0.041 (3.53)	0.176 (2.33)
Adjusted R^2	0.868	0.838	0.817	0.815