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VALUE AS A MEASURE OF TOURISM PERFORMANCE IN THE ERA OF GLOBALIZATION: CONCEPTUAL CONSIDERATIONS AND EMPIRICAL FINDINGS

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In general, both the World Tourism Organization (WTO) and the World Travel and Tourism Council (WTTC) consider the trends of tourist arrivals and receipts as indicators in comparing the performance of destinations and regions. These considerations are based on the annual average percentage change in arrivals and receipts and a comparison that is made across time. This methodology is incomplete, however, particularly in light of the new exigencies of globalization. The study proposes an alternative approach based on the concept of value. Value is founded on the premises of microeconomics, and it provides more reliable and effective information to improve the quality of both policy formulation and business decisions. Using partial correlation analysis, the study introduced a time trend variable as a proxy of value. The study developed a panel of observations from 1986 to 2001 for 32 countries worldwide. In terms of performance, the results of the alternative approach differ dramatically from those obtained in conventional methodology.

Key words: Tourism performance; Value; Demand; Globalization; Partial correlation analysis; Time trend

Tourism as a global industry has grown tremendously in the past 50 years. More and more countries are using tourism as a means to jump-start or diversify their economies. Both the World Tourism Organization (WTO) and the World Travel and Tourism Council (WTTC) forecast that the tourism industry will experience continuous growth for years to come (Goeldner & Ritchie, 2003). The experience with tourism by regions and countries in the

world, however, has been uneven. Some regions increased their global market share, but others declined. For example, the East Asia and Pacific region is one of the fastest growing regions in the world, while Europe's share of international arrivals has been decreasing (WTO, 1998, 2002).

Growth rates as a measure of performance have been used not only as a means to make comparisons across regions but also to make intraregional com-

parisons. Practitioners and academicians use growth rate numbers to measure results and even as a guide to analyzing strategies and business decisions (Goeldner & Ritchie, 2003; Weaver & Lawton, 2002). The extensive use of growth rates as a measure of performance, however, deserves greater scrutiny (Enz, Canina, & Walsh 2001; Jayawardena & Ramajeessingh, 2003).

This article presents the results of a comparative analysis of the tourist performance of 32 countries worldwide. It attempts to answer two related questions: (a) does the current measurement of tourist performance based on growth rates provide adequate information to respond to the exigencies of globalization, and (b), if not, is there an alternative method that can measure tourism performance more effectively? Globalization has significant economic effects on tourist destinations because of the increasing degrees of international integration, interaction, and interdependency with other agents in the world economy. As the pace of globalization increases, it becomes increasingly difficult to make hard choices in the production, distribution, and consumption of tourism products. This dynamic environment makes tourism particularly vulnerable because those making decisions require quick feedback because of tourism's perishable and inseparable nature in its consumption and production pattern. In this context, measurement of performance is necessary to provide adequate and accurate information that is critical to making sound policy and business decisions.

The proposed alternative method is based on the concept of value. Value is one of the three economic components (the other two being costs and price) comprising the economic logic. If we apply this logic to tourism performance, we would obtain different results than if we applied the conventional gauge of performance based on average arrivals and receipts growth. The results of measuring performance based on growth of arrivals and receipts confirm the East Asia and the Pacific region as the best performer during the relevant time periods. The worst performers, in descending order, are Europe, the Americas, and the Caribbean. The rank order of best and worst performers changes dramatically, however, if the measurement of performance is changed to one based on the concept of value. The Caribbean and Europe are now the best performers, and East Asia and the Pacific regions are the worst performers.

The policy implication of these results is important in identifying destinations that should be emulated as models for coping with the pressures of globalization. Chance factors of taking advantage of a buoyant global economy cannot be the sole explanation of why some regions perform better than others. Viewed in this way, the measurement of performance strongly suggests the influence of other factors, such as management capabilities, productivity advantages, marketing, and branding.

The remainder of the article is organized as follows. Section two reviews the theoretical literature. Section three discusses the methodology for constructing a measure of performance based on value, the regression models, and the relevant data sources. Section four assesses the findings and implications of the study, and the last section offers suggestions for future research in this area.

Performance in the Tourism Literature

Traditionally, the literature has treated performance as a function of fluctuations in arrivals and receipts (Backman, Uysal, & Backman, 1992; Cleverdon, 1979; Huan & O'Leary, 1999; Leiper, 1989). The literature considered an increase in arrivals and receipts as a key component in ascertaining the level of success of a destination. This same notion of growth rate was anchored in the enterprise logic in many tourism firms. Growth rate was assumed to be an indication of the market share, and market share was thought to affect performance in a positive way. The enterprise logic was that market share had a clear link with the level of profitability (Hergert, 1984).

Porter (1990) examined the universality of the market share/profitability relationship. He questioned whether the size of the firm and the low-cost/high-volume strategy based on economy of scale was the only viable strategy to create value. He concluded that the most important methods of creating value are strategy of differentiation, uniqueness, and reduction of elasticity, and the creation of a niche market based on segmentation. The heart of Porter's competitive strategy to create value and improve performance was analyzing the relationship of four units: buyers, suppliers, potential competitors, and existing competitors. In his view, the degree of collaboration among these units will determine the degree of value creation of a firm.

Borrowing from the “diamond model” of Porter (which addresses competition in terms of determinants of comparative advantage in industries or segments), Crouch and Ritchie (1999), and Dwyer, Forsyth, and Rao (2000) have addressed competitiveness as it relates to tourism. Crouch and Ritchie (1999) devised a conceptual model of destination competitiveness. In essence, the competitiveness model is a “to do” list for destinations, and it assesses the potential of factor inputs at the destinations, such as human, institutional, and natural resources. Competitive analyses are premised on two main assumptions: (1) government capabilities to remedy market failures and (2) the nature of market failures that affect dynamic comparative advantage. The literature is divided on the issue of government’s role in development strategy (Clancy, 1998). Furthermore, the lack of a clear definition of the dependent variable renders verification of any analysis and the selection of relevant determinants difficult (Lall, 2001). For example, Crouch and Ritchie (1999) used a long list of variables but did not justify theoretically the causal relationship.

One further problem with the “to do” list approach is the lack of availability and comparability of data, which needs to be considered when competitiveness is measured. This approach also lacks a cohesive way to assign weight to each of the features of the list comprising competitiveness and to make systematic predictions. Consequently, it is extremely difficult for competitiveness to answer the question of whether globalization is putting a premium on skills or on the resource base of a destination. Finally, it is not clear from this measurement how value for customers can be created.

Benchmarking also has been used to ascertain performance of tourism destinations (Kozak, 2002). Kozak and Rimmington (1999) identified destinations in direct competition and compared their competitiveness based on, among other things, hard data defined in terms of arrivals and tourist receipts. Alavi and Yasin (2000) also presented a benchmarking model based on a “shift-share” analysis in which they compared tourist arrivals from different parts of the world.

The measurement of performance based only on average growth rates is questionable, however, on three main grounds. First, it can be deceptive because it masks the creeping adverse effects of infla-

tion on economic efforts. For example, if international receipts double in 1 year, the money value of all tourist goods also would double. If, however, the prices of the goods also doubled on average for the year, then the real value for a country’s tourism product has not improved. Ignoring inflation can distort the measurement of performance and can create an “inflation illusion,” which, in turn, may diminish the quality of business decisions.

Second, it penalizes those destinations that choose to guide their tourism industries based on a deliberate choice of prudence and caution. Such destinations seek moderate growth rates of arrivals but more spending through a more sustainable approach towards tourism rather than simply by promoting a higher number of arrivals. Basing measurement on increasing arrivals or receipts cannot draw on the implications of policy on the effectiveness of performance, such as when a destination decides to apply certain supply constraints in order to lower growth in arrivals and receipts. A policy of sustainable tourism inevitably slows growth rates because it seeks to avoid unlimited growth, which will generate negative externalities and eventually lead to the industry’s own destruction (Weaver & Lawton, 2002).

Third, measurement of performance based on average growth rates also would penalize those destinations constrained by size. The focus on arrivals and receipts growth does not take into account the link between demand and supply conditions. Tourism supply is related to travel opportunities, which is determined by the size, structure, and quality of tourist attractions, infrastructure and superstructure, and the management capabilities present at a destination. Small economies cannot grow consistently at the rates of larger countries because of supply constraints imposed by limiting factors, such as land, attractions, and human resources.

The tourism literature fails to address the issue of performance adequately. There is no comprehensive attempt to define performance other than the conventional use of arrivals and receipts and the use of general indices. Furthermore, most of these studies link inputs with outputs as a way to measure performance. Inputs, however, are difficult to assess. Contextual and time-specific differences, such as business culture and strategy, management and marketing practices, the lack of control of exogenously fixed or nondiscretionary inputs, such as

proximity and weather issues, and the tourism development stage render it nearly impossible to make meaningful cross-country comparisons.

How performance is defined is crucial in enhancing the opportunities for effective learning. Enz et al. (2001) compared the use of industry averages of ADR, RevPAR, and occupancy. They concluded that these statistics obscure variations in the pattern of hotel industry performance. They stated that it is risky to rely on industry averages for forecasting and making decisions. How results are evaluated profoundly affects choices and strategies of adaptation in the marketplace. Changing conditions in the market require flexible capabilities that enable quick response, and these capabilities require a broad and deep knowledge base in product development, marketing, and management. Performance is a mutable concept depending on the goals set and the changing environment.

Demand as Related to Value

Meeting the needs of people has been a central responsibility of any society. The amount of information required to create and sustain an efficient and effective system for achieving this is beyond imagination. How to solve this daunting task of coordination and bring stability to the market is the essence of any exchange value.

The term value has all kinds of connotations. In particular, Marxian analysis considers use value, exchange value, and surplus value, whereas neoclassical economics takes value as simply the prevailing market price. However it is defined, value is at the heart of the distribution problem. For centuries, scholars have tried to answer the question of whether relative prices are independent of the pattern of consumption and of demand.

In other words, scholars debated whether value is supply or demand generated (Dobb, 1973). Ricardo (1951), for example, approached this issue of value from the side of production. He viewed the general characteristics of prices as being derived from conditions of production and relatively unaffected by the pattern of consumption. His view was consequently echoed by the supply school of value, which asserts that value is created at the beginning of the chain of realizing the final product through mainly labor and technology.

Other commentators (e.g., Jevons, 1957), however, articulated a quite different perspective on value creation. Jevons based his analysis on the concept of utility, and claimed that the classical economists, such as Ricardo, were wrong in viewing value as an outcome of the costs of production. Comparing utilities—which is the capacities to fulfill the needs and wants—in his view is crucial in ascertaining the value of goods. Prices, which are the manifestation of the value of a good, are determined by the distribution itself, and thus price ratios are treated as a resultant of demand. In other words, customer preferences are crucial in determining value. In this context, value is created in an opposite sequence—at the end of the chain—by the actual demand of the customer. The dynamics of these preferences are captured by the marginal utility theory. Competitiveness in this context may be enhanced by product differentiation and the dominance in certain market segments or niches.

In a recent study, Smeral (2003) found that tourism services have become relatively more expensive than other goods. He attributed this trend to the special nature of tourism production and consumption. First, there is the perishable nature of the production (i.e., an unsold hotel room is lost forever). Second, there is an element of inseparability in the production. For example, with tourism there is no special separation between production and consumption because the customer must be present and on site. The coincidence of production and consumption both temporarily and spatially restricts rationalization opportunities in the tourism industry. In his view, because productivity in the tourism sector jobs tends to lag behind productivity in manufacturing, the costs in the tourism business end up rising over time. The underlying assumption in his reasoning is that nominal wages equalize across sectors so that lower productivity shows up as relatively faster increases in prices.

But these reasons alone cannot explain the steady increase in tourism prices. The comparatively inelastic reaction of supply to rapidly changing demand affects the adoption of productivity advances and innovative potential in the tourism industry. Consequently, tourism products can extract higher “rents” because of scarcity. Higher prices also could be attributed to the special consumption pattern of tourism services (Smeral, 2003). There is growing evi-

dence that tourism is a luxury good because tourism demand has an income elasticity above 1. This implies that tourism services demand is triggered disproportionately in an individual's budget when incomes rise. In other words, as tourism products tend to compete less with nontourism goods over limited budgets, the greater the likelihood that price increases can overcome the productivity disadvantage.

Under these conditions, tastes and preferences have a critical impact on the development of destination and product specific market shares. They are revealed in terms of expenditures on goods and services. Given that tourism is a luxury good, value enhancement will ultimately depend on the relative size of income and price elasticities and exogenous shifts in lifestyle developments.

What I have termed the inseparability nature of tourism production makes a compelling case for addressing tourism from a demand perspective, and for associating value with demand. If this is the case, then value can be construed as a result of final consumption (i.e., the satisfaction of wants and needs of consumers). Thus, value is determined from the market of final goods premised on the structure and intensity of consumer demand.

The Construct of a Value Performance Methodology

The conventional methodology of this study measures performance through tourism receipts and arrivals in a particular destination. It reflects the theoretical rationale for tourism as a development strategy, which derives from the link between exports and economic growth. In attempting to evaluate performance through the generation of value, we construct an econometric model for the relevant regions that captures the essential features of performance. We compare the two set of results and determine the policy implications.

In the application of the econometric methodology, tourism receipts are the result of the volume of arrivals and the prices charged at a destination. A large proportion of a tourist's spending is the consumption of nontraded goods and services at the destination. Through this consumption, a tourist destination generates foreign exchange. Many destinations promote tourism precisely for generating foreign exchange and for promoting welfare and

growth (Armstrong & Read, 2000; Balaguer & Cantavella-Jorda, 2002; Dwyer & Forsyth, 1993; Fletcher, 1989; Mihalic, 2002; Sinclair & Stabler, 1997).

Typically, as arrivals increase, receipts, in turn, also increase. Tourism arrivals may exert a positive influence on tourism receipts. Under certain circumstances, however, arrivals may exert a negative influence. Accordingly, with the value of the elasticity, the price variable may exert a positive or negative influence on tourism receipts (TRE). If the rational argument of experience and better practices is correct, greater value is obtained through time and can be expected to have a positive effect on TRE. Using this basic relationship, it can be shown that the growth in tourist receipts is a function of arrivals, price, and the value of the tourism product.

This study translates these concepts as follows. For any destination, it is more effective that receipts reflect value enhancement of the product to a greater degree than simply more arrivals or higher inflation as a proxy for costs. As more tourist goods are "exported," demand for abundant factors (which are used intensively in production) will increase in the exporting country, causing its relative cost increase. Therefore, any destination benefits with more revenues generated because of value enhancement rather than by greater volume (more arrivals) or higher inflation.

The methodology of the study consists of three steps. First, the study applies the conventional methodology of growth rates estimation and rank performance accordingly. The growth rate is measured through estimation of Equations (1) and (2):

$$TARR_{jt} = \gamma e^{\delta Time} \tag{1}$$

$$TAE_{jt} = \eta e^{\theta Time} \tag{2}$$

After taking logs on both sides, Equations (1) and (2) can be specified as:

$$\log TARR_{jt} = \gamma + \delta Time \tag{3}$$

$$\log TRE_{jt} = \eta + \theta Time \tag{4}$$

where $TARR_{jt}$ and TAE_{jt} are tourist arrivals and tourist receipts for the j region in period t , respectively, and δ and η multiplied by 100 give values of the average annual growth rates.

Second, the study constructs an econometric model for each region that seeks to capture the essential features of tourism receipts. Thus, the reduced-form tourism receipts equation can be specified as:

$$TRE_{jt} = f(TARR_{jt}, INF_{jt}, TIME_{jt}, \epsilon_{jt}) \quad (5)$$

where the consumer price index serves as a proxy for the price variable INF, time represents a trend effect, and ϵ_{jt} is the error term. The value component is captured by a time trend. Trends capture broad movements in the dependent variable that are not explained by the independent variables in the model.

For example, macroeconomic models often use time trend variable to measure productivity, which is attributed to technical change (Greene, 2000). Smeral (2003) used time trend to measure exogenously determined demand increase generated by structural change in his model to explain structural change in tourism demand. In this study, the time trend serves as a proxy of value, which might be attributed to changes in tastes, preferences, and habits of customers.

Equation (5) explains the outcome of the increasing foreign exchange receipts either as a result of expanding arrivals, inflation, an improvement in the value of the tourism product, or a combination of all three. Notwithstanding the study's specification of a multiple regression model, the emphasis in this analysis only focuses on one variable—of the complete set of variables—the effect of value added to the tourism product on the generation of tourism receipts. The question to consider here is what computations are involved in obtaining, in isolation, the coefficient of the trend variable in Equation (5).

To pursue this objective, the study transformed Equation (5) into the following regressions:

$$R_t = B_0 + B_1 \text{ arrivals}_t + B_2 \text{ inflation}_t + \text{time} + e_t \quad (6)$$

$$\log R_t = B_0 + B_1 \log \text{ arrivals}_t + B_2 \log \text{ inflation}_t + \text{time} + e_t \quad (7)$$

The study estimated both double log-linear and linear functional forms in order to account for linear and nonlinear relationships. The study compared the functional forms in terms of coefficient signs,

statistical significance of the estimated coefficients, and the explanatory power of the model. The study also applied the likelihood ratio tests (LR). It also used a partial correlation coefficient analysis between TRE and TIME, controlling for the effects of ARR and INF. The study obtained the parameter by netting out (1) the residuals in a regression of TRE on a constant and trend, (2) the residuals in a regression of ARR on a constant and trend, and (3) the residuals in a regression of INF on a constant and trend (Greene, 2000; Pindyck & Rubinfeld, 1998).

In other words, the squared second-order partial ($r^2_{12.34}$, i.e., the partial of 1 and 2 holding 3 and 4 constant) is equal to the difference between two R^2 terms divided by 1 minus an R^2 term. The equations, therefore, can be specified as:

$$r^2_{12.34} (\text{inflation}) = R^2_{1.234} - (R^2_{1.3})(R^2_{1.4}) / 1 - (R^2_{1.3})(R^2_{1.4}) \quad (8)$$

$$r^2_{13.24} (\text{arrivals}) = R^2_{1.234} - (R^2_{1.2})(R^2_{1.4}) / 1 - (R^2_{2.3})(R^2_{2.4}) \quad (9)$$

$$r^2_{14.23} (\text{time}) = R^2_{1.234} - (R^2_{1.2})(R^2_{1.3}) / 1 - (R^2_{1.2})(R^2_{1.3}) \quad (10)$$

where, X_1 is the dependent variable (international receipts), and X_2 , X_3 , and X_4 are the independent variables and are reflected in arrivals, inflation, and time trends, respectively.

In essence, the study used partial correlations from multiple regressions to compute the R^2 of the four variables. The value variable is the resultant of the unique explanation of the time trend as a proxy of value, not considering any shared explanation.

This equation is:

$$\text{Value} = r^2_{14.23} - (r^2_{14.23} - R^2_{1.4}) \quad (11)$$

The study assumed international receipts are exogenous to each of the independent variables, thereby justifying the use of OLS. It reported the coefficients, F -statistics, t -statistics, and DW-statistics from OLS regressions of price, arrivals, and value. It tested the normality assumption of the distribution. The variables appear to have an upward trend, and applying OLS, we might find, therefore, a significant positive effect. Often, detrending helps to eliminate spurious regression results. As recent econometric literature shows, however, detrending

does not help in case the variables are difference-stationary [i.e., $I(1)$]. Therefore, the Augmented Dickey-Fuller (ADF) unit root tests were carried out to examine the stationarity of all variables. This process enabled the study to rank and compare the performance of the seven regions.

Third, the study compared the results of the two methods and their policy implications.

Data Sources

One problem is the difficulty in assembling harmonized statistics on the explanatory variables as it is to collect tourism receipts data, which is the grouping dependent variable in the partial correlation analysis. The study had to overcome conflicting definitions of regions by the World Tourism Organization (WTO) and International Monetary Fund (IMF). Moreover, there also were discrepancies in data within the WTO as well as between the WTO and the IMF. Missing data also became a major issue during the research process, and the study was confined to working with a select group of countries to ascertain the degree of tourist product value creation.

The study overcame this problem by dividing the 32 relevant countries into six groups based on the WTO country classification: Africa, Americas, Europe, Middle East, East Asia and the Pacific, and South Asia. The study added the Caribbean to the list to assess the performance of small economies. The time period studied was 1986 to 2001. For the purpose of analyzing performance across time, the study further divided the time period from 1986 to 1993 and from 1994 to 2001.

For each region, the study collected the annual international receipts and international arrivals from the WTO yearbooks, and inflation from the Annual International Financial Statistical Yearbook of the IMF. Using this set of data, the study unified the estimations behind the results to produce single set of acceptable measures. For lack of reliable data series, the study did not include the number of visitor days in the model. This certainly would be an improvement considering that the average length of tourist stay has varied with time.

The study included a country only if complete data were available. Consequently, it analyzed 60 countries, but created a new data set based only on 32 countries (Table 1). Each sample of the regions

included five countries, except the Middle East where only two countries were analyzed.

Estimation and Empirical Results

The Conventional Methodology

The study estimated Equations (3) and (4) by ordinary least squares. The selected time series is the period from 1986 to 2001. For the purpose of analyzing performance across time, the study further divided the time series into two periods from 1986 to 1993, and from 1994 to 2001. Table 2 presents a summary of the results. Between 1986 and 2001, tourism growth remained consistent with its past behavior. Tourism grew worldwide at an annual average of 4.66% and 7.85% in international arrivals and receipts, respectively, and solidly demonstrated its continuing status as a growth industry.

Not all regions, however, performed equally. East Asia and the Pacific as a region consistently performed better than the world average. The revenues generated by international tourism in this region were 138% higher than the world average and 170% higher than the world average in international arrivals. In the second half of the period under consideration, 1994–2001, it outperformed the world's average for both receipts and arrivals, albeit at a slower pace than the first period under consideration (i.e., 124% and 166%, respectively) (Table 2). Actually, the region lost 13.8% in receipts and 3.5% in arrivals in comparing the two periods.

The region's overall impressive performance is followed by the Middle East and Africa. Both regions experienced robust growth rates of 122% and 78%, respectively, with regard to international receipts for the two periods under review.

Across time, Europe was the obvious laggard during the period under review. This region saw a deterioration of both its international arrivals and receipts when compared to the world's average. It nevertheless remains the largest single destination region in the world. This region's weak performance was followed by the Americas and the Caribbean, respectively.

The overall ranking of the regions are depicted in Table 2. In order of sequence from higher to lower ranking, the ranking is East Asia and the Pacific, the Middle East, Africa, South Asia, Caribbean, Americas, and Europe.

Table 1
Selected Indicators by Country, 2001

Country	Region	Area (km ² in thousands)	Population (in millions)	International Receipts (in US\$ millions)	GDP 2001 (in US\$ billions)	Share of Tourism Receipts of GDP ^a
Kenya	Africa	580.4	30.70	308	11.4	2.70
Mauritius	Africa	2.0	1.20	625	4.5	13.89
Seychelles	Africa	0.5	0.08	113	0.57	19.84
Tanzania	Africa	0.9	34.40	725	9.3	7.80
Tunisia	Africa	163.6	9.70	1605	20.0	8.03
Argentina	Americas	2800.0	37.50	2547	268.8	0.95
Brazil	Americas	8500.0	172.40	3701	509.0	0.73
Costa Rica	Americas	51.1	3.90	1278	16.4	7.79
Mexico	Americas	2000.0	99.40	8401	623.9	1.35
United States	Americas	9600.0	285.30	72295	10,100	0.72
Aruba	Caribbean	0.2	0.09	890	2.1	42.38
Barbados	Caribbean	0.4	0.27	687	2.8	24.54
Dominican Republic	Caribbean	48.7	8.50	2681	21.2	12.65
Jamaica	Caribbean	11.0	2.60	1277	7.8	16.37
Haiti	Caribbean	27.8	8.10	54	3.7	1.46
Cyprus	Europe	9.3	0.76	1981	9.1	21.77
Greece	Europe	132.0	10.60	9121	117.2	7.78
Malta	Europe	0.3	0.40	579	3.6	16.08
Portugal	Europe	92.0	10.00	5479	109.8	4.99
Spain	Europe	506.0	41.10	32873	581.8	5.65
Indonesia	East Asia	1900.0	209.00	5411	141.3	3.83
Fiji	East Asia	18.3	0.82	217	1.7	12.76
Korea, South	East Asia	99.3	47.30	6373	427.2	1.49
Malaysia	East Asia	329.8	23.80	6374	88.0	7.24
Singapore	East Asia	0.6	4.10	5081	84.9	5.98
Egypt	Middle East	1000.0	65.20	3800	95.8	3.97
Jordan	Middle East	89.2	5.00	700	8.8	7.95
India	South Asia	3300.0	1.00	3042	481.4	0.63
Myanmar	South Asia	676.6	48.30	45	2.86	6.36
Nepal	South Asia	147.2	23.60	140	5.6	2.50
Pakistan	South Asia	796.1	141.50	92	58.6	0.16
Sri Lanka	South Asia	65.6	18.70	211	15.7	1.34

Source: World Bank and WTO.

^aEstimated from the published statistics of the World Bank and WTO.

Table 2
Performance Results According to the Conventional Approach

Region	Average Annual Growth Receipts			Average Annual Growth Arrivals			Score	Rank
	(1)	(2)	(3)	(1)	(2)	(3)		
Africa	9.43	10.72	8.14	7.30	9.21	5.39	32	3
Americas	7.79	11.60	3.98	3.41	4.82	2.00	16	6
Caribbean	7.13	8.44	5.81	4.53	5.51	3.55	19	5
Europe	7.20	9.97	4.44	4.03	4.82	3.24	15	7
Middle East	8.49	7.95	9.03	8.69	8.11	9.27	33	2
East Asia & the Pacific	10.86	15.93	5.79	7.91	9.51	6.31	35	1
South Asia	6.92	6.41	7.43	4.95	3.49	6.40	18	4
World	7.85	11.03	4.66	4.66	5.53	3.79		

(1) = 1986–2001; (2) = 1986–1993; (3) = 1994–2001.

The Alternative Methodology

The results of this study are summarized in Table 3. The normality assumption of the data set was tested, and it was found to be realistic. The results furthermore cannot reject a unit root, but the point estimate of p is not particularly close to 1. Only in the cases of the Caribbean and Europe does there appear to be a presence of unit root behavior potentially affecting the model in levels. Estimating the equation using first differences not only would compromise the size of degrees of freedom, but also would mean that we no longer would need a time trend. The latter would affect seriously the theoretical underpinnings of our model (i.e., the exogenous factors would measure the variance in value enhancement in the several regions).

When we have a small sample size—and $n = 16$ is considered by standard practice to be relatively small—it is extremely difficult to reject the null hypothesis of a unit root if the process has something close to a unit root. Insisting on a unit root might not only lead to low power of the tests, and hence might lead to erroneous conclusions about the existence of unit roots and co-integration vectors (Harvey, 1997). With this cautionary note, we decided to rely on the theoretical underpinnings of our model instead.

Because the choice of a functional form of value equation can have a significant effect on the results, it was necessary to assess the best functional form (Croes, 2000). If determining value in the tourism production process is important to the extent that

tourist and business managers use this information in their decision making, then inaccurate information may lead to suboptimal allocation of tourist resources. This study estimated both double log-linear and linear functional forms.

To make the final decision about the functional form two criteria were considered. The functions were compared in terms of expected coefficient signs, statistical significance of the estimated coefficients, and the explanatory power of the model. Based on these considerations, the linear functional form yields the best results.

Furthermore, likelihood ratio tests (LR) were carried out to further assess the best choice of the two forms. The results indicated that the linear functional form performed better than the double log-linear form in all cases. Actually, the likelihood ratio tests indicate that we did not need to transform the response. The selected alpha level was 0.05, and the value of chi-square for 1 degree of freedom is 3.84. As the test of no-transformation yields a chi-square of 3.35 for Africa, 1.76 for Europe, 0.07 for East Asia and the Pacific, 1.34 for the Caribbean, 0.11 for the Middle East, 0.39 for South Asia, and 0.47 for the Americas, the probability that the obtained values of chi-square occurring by chance under the null hypothesis was less than 95% (3.84 is larger than all the obtained values of chi-square). Thus, we could not reject the null hypothesis that the transformation of the model was necessary. The LT confirmed, therefore, that the linear functional form yielded more reliable results, and hence the estimated coefficients reported in this study are from the linear equations.

Table 3
Regressions With Region-Specific Effects

Region	Skewness	Kurtosis	ADF	DW-Statistic	R^2	F -Statistic
Africa	0.778	0.261	-1.16 (0.69)	2.2003	0.9594	94.64
Americas	0.380	0.276	-2.04 (0.27)	1.9200	0.9544	263.95
East Asia & The Pacific	0.539	0.152	-1.34 (0.61)	1.82004	0.9851	48.31
Europe	0.688	0.228	-0.47 (0.89) ^a	1.84039	0.9778	176.37
Middle East	0.542	0.141	-1.60 (0.49)	1.73231	0.9941	24.27
South Asia	0.811	0.007	-0.99 (0.76)	2.03676	0.8585	91.03
Caribbean	0.623	0.077	-0.22 (0.94) ^a	1.73231	0.9579	673.37

Dependable variable: annual international receipts in US\$. Sample: 32 countries distributed in seven regions. Estimation method: OLS. The standard error of skewness (ses) is estimated at 1.2248, and the standard error of kurtosis (sek) is estimated at 2.4495. Significance holds to 99.9% level of confidence. No autocorrelation in DW values has been detected at 95% confidence. ADF at 10% is -3.12. p hats are in parentheses.

^aEurope and the Caribbean appear to present unit root behavior.

The model is extremely parsimonious because inflation, arrivals, and value provided a high degree of explanation of the variance in international receipts. All the measures of the equation parameters are significant at the 99.9% level of confidence. All the equations had the expected correct signs. Autocorrelation, a common concern in time series data, was tested using the Durbin-Watson test statistic. Testing for error violation is important because the presence of autocorrelation led to unreliable inferences from hypothesis tests. The study detected no autocorrelation at 95% confidence in any of the seven regions.

Value and arrivals in sequence turned out to be the most important variables in explaining the variance in the dependent variable. This is substantiated by the standardized coefficients, which describe the relative importance of the independent variables in a multiple regression model. With standardized coefficients, we are measuring effects not in terms of the original units of the variables, but in standardized deviation units. Because it makes the scale of the regressors irrelevant, this equation puts the explanation variables on equal footing.

Based on these measures, value is the most important variable affecting the generation of tourism receipts. The study suggests that value has been more important for receipts generation in the time span under review for Europe ($\beta = 0.707$), South Asia (0.607), Americas (0.516), and the Middle East (0.489) then arrivals (0.221), (0.453), (0.477), and (0.448) for Europe, South Asia, Americas, and the Middle East, respectively. On the other hand, arrivals has had the greatest impact on receipt generation for the Caribbean (0.599), East Asia and the

Pacific (0.561), and Africa (0.517) then value with a beta coefficient of (0.369), (0.410), and (0.425) for the Caribbean, South East Asia and the Pacific, and Africa, respectively.

After controlling for arrivals and inflation, the study found value to vary across regions and over time. Value enhancement was significant at the 0.01 level for all the regions. Value enhancement across regions, however, is mixed (Table 4). The Caribbean indicates a strong performance in value enhancement during 1986 to 2001, followed by Europe and the Americas. The laggard regions are East Asia and the Pacific and the Middle East.

The results demonstrate that value enhancement was on the rise until the mid-1990s and has been stagnating or even declining since then for all the regions. All regions registered lower values between 1994 and 2001 compared with the value parameters registered during 1986–2001. This shows that value enhancement was found to decline over time, which indicates that countries in the region on average were not improving their performance over time. This performance of value depletion may be a result of the pressing conditions during 1994–2001, such as the Asian financial crises, the softening of the world economy, and the September 11 terrorist attacks on the US.

The parameter estimates are reasonably constant for the Caribbean over the two time spans and showed some signs of value depletion (5.08%) in the second part compared with the first. For the Americas, the process of value depletion was substantial with a total of 21.85%. Europe, on the other hand, showed moderate signs of recuperation of value in the second half compared with the first with

Table 4
Value Enhancement or Depletion by Region, 1986–2001

Region	1986–2001	1986–1993	1994–2001	Score	Rank
Africa	0.942 (13.97)	0.648 (2.71)	0.937 (7.71)	11	4
Americas	0.949 (14.94)	0.993 (23.83)	0.776 (3.62)	15	3
East Asia & The Pacific	0.897 (10.22)	0.994 (25.74)	0.226 (1.08) ^a	10	6
Europe	0.974 (21.20)	0.913 (6.48)	0.944 (8.22)	17	2
Middle East	0.751 (6.02)	0.259 (1.18) ^a	0.612 (2.51)	4	7
South Asia	0.946 (14.51)	0.843 (4.63)	0.753 (3.49)	10	5
Caribbean	0.976 (22.09)	0.984 (15.68)	0.934 (7.52)	17	1

t-Statistics are in parentheses and significant at the 0.10 level.

^aNot significant at the 0.01 level.

3.3%. In the laggard regions, the Middle East showed a tremendous recuperation in value enhancement with a 136.29% increase in the second period under review. The most worrisome region is East Asia and the Pacific, which saw its value of the product plummet by 77.26%, the highest value depletion among all the regions.

It is interesting to note that the data suggest that the two best performers (i.e., the Caribbean and Europe), in terms of value enhancement during the period under review, present different structural realities related to the quality of the product. Whereas they have similar value enhancement parameters (0.976 for the Caribbean and 0.974 for Europe), the impact of value on tourist receipt generation is vastly different. In the case of Europe, the effect of value on receipt generation is more than three times larger than arrivals. This suggests that relatively fewer consumers are spending more on tourism consumption, which would require less resource allocation to the manufacturing of tourism products.

The reality of the Caribbean, on the other hand, indicates a product being consumed by relatively more buyers who are spending less. Actually, the impact of value on receipt generation in the Caribbean is only half that of Europe (0.707 for Europe vs. 0.369 for the Caribbean). Thus, it appears that more resources are being allocated for product manufacturing of tourism goods in the Caribbean, thereby increasing their opportunity costs. If true, then this finding may be particularly relevant for the Caribbean (and other regions where there is a gap of value enhancement versus the impact of value on receipt generation) as it makes policy choices regarding the most promising strategy for enhancing the value of its tourism very timely and imperative.

Conclusions

The purpose of this study was to determine the most effective form of measuring tourism performance under the condition of globalization. The study presented and analyzed two approaches: (1) the conventional approach based on annual average growth rates of international tourism arrivals and receipts, and (2) the alternative approach based on the concept of value enhancement.

The value approach is based on the concept of effectiveness of foreign exchange generation and is

demand driven. Performance based on the conventional method of average growth rates obscures relevant structural realities at a destination, such as volatility, value of the product, and supply constraints. These structural realities can distort the quality of policy formulation and business decisions at any destination. Furthermore, the conventional method disregards the role and implications of policy choices, such as sustainable development strategies.

In order to address these structural realities, the study designed an alternative model. This alternative model more accurately reflects the structural conditions present in the market, such as international arrivals, receipts, inflation, and value enhancement or depletion. In addition, it responds more readily to the notion of rewards and punishments induced by the market, reflecting the behavior of businesses to incentives to maximize value, and it responds more rapidly to changes in the market prices. Of course, any destination is better off with more revenues generated because of value enhancement than by greater volume (more arrivals) or higher inflation. These three variables are obvious candidates to explain the variability in international receipts of a destination. Determining this variability captures the tourism performance of destinations.

The study developed a panel of observations from 1986 to 2001 for seven regions identified by the WTO and for 32 countries for which all data were available. Each region and country provides observations for three subperiods: 1986–2001, 1986–1993, and 1994–2001. The results in performance depend heavily on the form of measurement used. The results of measuring performance based on growth of arrivals and receipts confirm the East Asia and the Pacific region as the best performers during the relevant time periods. The worst performers, in descending order, are Europe, the Americas, and the Caribbean. If, however, the measurement of performance is changed to the concept of value, the rank order of best and worst performers changes dramatically. The Caribbean and Europe are now the best performers, while East Asia and the Pacific region is the worst performer.

The form of measurement can have powerful implications for adaptation strategies of destinations (Axelrod & Cohen, 1999). The model presented here is useful because it helps to frame a number of issues that are relevant to the competitiveness

and sustainability of tourism destinations. In an uncertain and unpredictable world characterized by rapid and constant change, it is difficult, if not impossible, to ascertain what criteria of success to use or how to assess potential strategies. Imitation or analogy can become a stressful tool of strategy selection for a destination. Imitating features that are only superficially relevant, however, can have damaging effects on the strategic commitment of any tourist destination. Furthermore, learning costs can be prohibitive (Perez-Aleman, 2000). This study helps to determine those leaders in the field that are worthwhile to imitate and that would make effective strategic partners.

Furthermore, this study indicates that value provides a robust explanation for the variance in tourism performance. This conclusion warrants a careful assessment of the specific properties of the tourism product. On the one hand, the experiential properties together with a greater degree of sectoral specialization impose a strong need for adequate measures for coordinating activities performed by a wide body of agents at the destination level. On the other hand, the transient nature of tourism consumption provides an incentive to the producer to cheat on the quality of the product (Keane, 1996). Consequently, the increasing need for coordination and for providing the appropriate structure of incentives to confront the moral hazard require effective measures of institution and capacity building. Viewed from this perspective, “relational assets” become highly strategic components in the process of institution building.

Finally, because value is demand driven, a greater knowledge of customers’ tastes and preferences is necessary. Such an approach implies a process inversion where the final consumer will be the starting point to organize the production chain all the way through the raw material stage. This approach enhances value by creating products with the highest entry barriers (i.e., access to niche markets, financial services, research, design, and marketing facilities). These entry barriers manifest themselves in flexible specialization, market segmentation, and non-price competition. This perspective can generate beneficial externalities in the process of building skills and competencies at the firm level in order to improve existing design, processes, and products.

Chance factors, such as taking advantage of a buoyant economy, cannot explain the variability in performance. Similarly, neither size nor the development stage of the economy offers an adequate explanation. Future studies should expand the sample of countries for comparison purposes and should focus on understanding why some destinations perform better than others. Moreover, it should seek a clearer understanding of improved performance based on value enhancement and its important relationship with value appropriation.

References

- Alavi, J., & Yasin, M. M. (2000). A systematic approach to tourism policy. *Journal of Business Research*, *48*, 147–157.
- Armstrong, H. W., & Read, R. (2000). Comparing the economic performance of dependent territories and sovereign microstates. *Economic Development and Cultural Change*, *48*(2), 285–306.
- Axelrod, R., & Cohen, M. (1999). *Harnessing complexity, organizational implications of a scientific frontier*. New York: The Free Press.
- Backman, K. F., Uysal, M., & Backman, S. J. (1992). Index number: A tourism managerial and policy-making tool. *Journal of Applied Recreational Research*, *17*(2), 158–177.
- Balaguer, J., & Cantavella-Jorda, M. (2002). Tourism as a long-run economic growth factor: The Spanish case. *Applied Economics*, *34*, 877–884.
- Clancy, M. J. (1999). Tourism and development: Evidence from Mexico. *Annals of Tourism Research*, *26*(1), 1–20.
- Cleverdon, R. (1979, May). *Economic and social impact of international tourism on developing countries*. Economist Intelligence Unit Special Report 60, 11–14.
- Croes, R. R. (2000). *Anatomy of demand in international tourism: The case of Aruba*. Assen: van Gorcum Publisher.
- Crouch, G. I., & Ritchie, J. R. B. (1999). Tourism, competitiveness and societal prosperity. *Journal of Business Research*, *44*, 137–152.
- Dobb, M. (1973). *Theories of value and distribution since Adam Smith. Ideology and economic theory*. Cambridge: Cambridge University Press.
- Dwyer, L., & Forsyth, P. (1993). Assessing the benefits and costs of inbound tourism. *Annals of Tourism Research*, *20*, 751–768.
- Dwyer, L., Forsyth, P., & Rao, P. (2000). The price competitiveness of travel and tourism: A comparison of 19 destinations. *Tourism Management*, *21*, 9–22.
- Enz, C. A., Canina, L., & Walsh, K. (2001). Hotel-industry averages, an inaccurate tool for measuring performance. *Cornell Hotel and Restaurant Administration Quarterly*, *42*(6), 22–32.
- Fletcher, J. (1989). Input-output analysis and tourism im-

- pacts studies. *Annals of Tourism Research*, 16, 514–529.
- Goeldner, C., & Ritchie, J. R. B. (2003). *Tourism: Principles, practices, and philosophies*. Hoboken, NJ: John Wiley & Sons.
- Greene, W. H. (2000). *Econometric analysis*. Englewood Cliff, NJ: Prentice Hall.
- Harvey, A. (1997). Trends, cycles, and autoregressions. *The Economic Journal*, 107, 192–201.
- Hergert, M., (1984, October). Market share and profitability: Is bigger really better? *Business Economics*, 45–48.
- Huan, T. C., & O'Leary, J. (1999). *Measuring tourism performance*. Champaign, IL: Sagamore Publishing.
- Jayawardena, C., & Ramajeessingh, D. (2003). Performance of tourism analysis: A Caribbean perspective. *International Journal of Contemporary Hospitality Management*, 15, 176–179.
- Jevons, S. (1957). *The theory of political economy* (5th ed.). New York: Sentry Press.
- Keane, M. J. (1996). Quality and pricing in tourism destinations. *Annals of Tourism Research*, 24(1), 117–130.
- Kozak, M. (2002). Destination benchmarking. *Annals of Tourism Research*, 29, 497–519.
- Kozak, M., & Rimmington, M. (1999). Measuring tourist destination competitiveness: Conceptual considerations and empirical findings. *International Journal of Hospitality Management*, 18, 273–284.
- Lall, S. (2001). Competitiveness indices and developing countries: An economic evaluation of the global competitiveness report. *World Development*, 29(9), 1501–1525.
- Leiper, N. (1989). Main destination ratios, analyses of tourist flows. *Annals of Tourism Research*, 16, 530–541.
- Mihalic, T. (2002). Tourism and economic issues. In R. Sharpley & D. J. Telfer (Eds.), *Tourism and development: Concepts and issues* (pp. 81–111). Clevedon: Channel View Publications.
- Perez-Aleman, P. (2000). Learning, adjustment and economic development: Transforming firms, the state and associations in Chile. *World Development*, 28(1), 41–55.
- Pindyck, R. S., & Rubinfeld, D. L. (1998). *Econometric models and economic forecasts*. Boston: McGraw-Hill.
- Porter, M. E. (1990). *The competitive advantage of nations*. New York: The Free Press.
- Ricardo, D. (1951). On the principles of political economy and taxation. In *Works of David Ricardo* (Vol. 1). Cambridge: Cambridge University Press.
- Sinclair, M. T., & Stabler, M. (1997). *The economics of tourism*. London: Routledge.
- Smeral, E. (2003). A structural view of tourism growth. *Tourism Economics*, 9(1), 77–94.
- Weaver, D., & Lawton, L. (2002). *Tourism management*. Australia: John Wiley and Sons.
- World Tourism Organization. (1998). *Tourism economic report*. Madrid: Author.
- World Tourism Organization. (2002). *Performance indicators for tourism destinations in Asia and the Pacific region*. Madrid: Author.