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Small Island Economic Strategies: Aid-Remittance versus Tourism Dependence

The Migrant/Remittances and Aid/Bureaucracy (MIRAB) model developed by Bertram and Watters (1985) based on remittances and aid has dominated the small island economy literature. Recently, two challenges have surfaced: the People (immigration), Resources, Overseas Management (Diplomacy), Finance and Transport (PROFIT) formulation of Baldacchino (2006) emphasizing the 'resourcefulness of jurisdiction' and the Small Island Tourist Economies (SITE) model (McElroy, 2006) stressing the role of tourism. To date, there has been no comparative assessment of these different island models. This article partially addresses this gap by constructing comprehensive profiles across 24 variables for two small-island subgroups: 12 MIRAB and 17 SITE. Results indicate SITE islands exhibit a considerably more developed profile than their MIRAB counterparts.

Key words: small, island economy, MIRAB, PROFIT, SITE.

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Biography

Katherine McSorley graduated from Saint Mary's College in May, 2007 with a double major in Economics and Business Administration, and she now serves as an Account Specialist for Aon Risk Services in Boston.

Jerome L. McElroy's research has centered on small island development issues in general and tourism in particular. His recent work has focused on sustainable tourism, the impact of crime, Caribbean tourism after Castro, the role of political status on tourism development, the impact of tourism on island environment, and the contours of the small-island tourist economy.

Introduction

The early literature on island economy focused on the constraints of small market size (Knox, 1967) and geographic remoteness (Selwyn, 1978) and the need for openness (Seers, 1964) and dynamic export specialization (Demas, 1965) to overcome the limitations of resource scarcity. Bertram and Watters (1985) developed the first full-blown island economy model based primarily on Pacific experience. They posited two export stocks—emigrant labor and diplomatic services—and two corresponding flows of remittances and aid that determined the island standard of living in the face of a sluggish private sector. Over the next two decades many small insular outposts were identified as MIRAB islands (Bertram, 2006) surviving on **Migrant/Remittances and Aid/Bureaucracy**.

This paradigm dominated the literature until the appearance of Baldacchino and Milne's (2000) examination of North Atlantic islands. Their study demonstrated the key source of island prosperity to be the so-called "resourcefulness of jurisdiction," i.e. the ability particularly for non-sovereign dependent territories to manipulate metropolitan links for local benefit. Baldacchino (2006) formulated this idea into the PROFIT model whereby dependencies, through creative domestic policy, wrest local control from their metropolitan patrons over **People** (immigration), **Resources**, **Overseas Management** (Diplomacy), **Finance** and **Transport**. Examples of PROFIT islands would include tax and insurance havens, offshore banking centers, duty-free manufacturing exporters and the like.

At the same time, McElroy (2006) introduced the SITE model to explain how many **Small Island Tourist Economies**, particularly in the Caribbean, had surmounted their size disadvantages by restructuring their colonial economies to global tourism growth in the postwar era. His work strengthened the conclusion of Brau and others (2003:9) that: "Smallness per se can be good for growth as long as it is combined with tourism specialization." Using descriptive statistics, McElroy also suggested there were considerable

socioeconomic and demographic differences between the more advanced SITEs and MIRAB islands.

Scope and Setting

To date no comparative empirical assessment of these different island model types has appeared. This article partially addresses this lacuna. Although in fact SITE islands may be considered a species of the PROFIT genre—with their emphasis on domestic policy (tourism promotion) and a dynamic private sector—this provisional study contrasts only a small sample of SITE and MIRAB islands. It does so by constructing comprehensive socioeconomic and demographic profiles across two dozen indicators using a two-sample means test. The results determine whether the two models differ in fact, and they also provide a frame of reference for discussing the relative merits of the tourism strategy versus remittance-aid dependency.

Table 1 provides background on levels of tourism development contrasting selected MIRAB and SITE islands. Despite the small sample sizes, average values clearly distinguish the two groupings. For example, the tourism-led SITE destinations average over ten times more tourist arrivals and room accommodation, and over 20 times aggregate visitor spending (\$446 to \$21 million) than their MIRAB counterparts. Likewise they average over eight times the level of per resident visitor spending (\$4,346 to \$525) and over four times the average daily visitor density, i.e. 90 versus 20 visitors per 1,000 population. Finally, tourism is considerably more visible on their landscapes with roughly 20 rooms per Km² in contrast to less than two for their MIRAB neighbors. Such tourism differences discriminate the two island clusters.

Table 1: Selected Tourism Indicators¹

Islands	Tourists (000)	Day (000)	ALOS ²	Rooms	Spend. (\$Mn)	Spend/ Pop.	Visitor Density ⁴	Room/ Km ²
MIRAB³								
Comoros	18	0	7.0	375	10	14	0.5	0.2
Cook Is.	83	0	10.0	1152	72	3272	103	4.9
Kiribati	4	59	18.0	436	4	37	3.3	0.5
Marshall Is.	9	0	4.2	300	5	81	1.7	1.7
Micronesia	19	0	7.0	400	18	167	3.4	0.6
Niue	3	0	14.0	84	2	1000	58	0.3
Samoa	98	0	7.6	950	71	332	9.5	0.3
Sao Tome/Principe	8	1	7.0	259	10	50	0.8	0.3
Tonga	41	12	17.0	650	15	128	17	0.9
Tuvalu	2	0	7.6	59	2	167	3.5	2.3
Avg.	29	---	9.9	467	21	525	20	1.2
SITE								
Anguilla	54	67	7.6	756	69	4929	93	7.4
Antigua	245	523	7.0	3200	337	4814	88	7.2
Barbados	552	721	9.9	5945	810	2883	60	13.8
Bermuda	272	206	6.4	2944	394	5970	81	55.5
British Virgin Is.	305	508	9.3	2697	391	16292	382	17.6
Cayman Is.	260	1693	6.9	4318	518	11021	203	16.5
Dominica	79	383	8.6	1000	60	83	4	1.3
Fr. Polynesia	212	0	13.5	3326	767	2749	28	0.9
Grenada	134	236	7.5	1738	92	1022	38	5.1
Guam	1157	0	6.0	7561	1908	10966	109	14.0
Maldives	614	4	8.7	8747	471	1276	40	29.2
Malta	1158	292	9.7	39770	963	2396	79	125.9
Montserrat	10	5	10.0	243	9	900	29	2.4
Seychelles	121	7	10.0	2477	256	3122	41	5.4
St. Kitts	118	259	8.7	1825	107	2744	90	7.0
St. Lucia	298	492	8.7	3974	326	1906	49	6.6
St. Vincent	87	175	12.5	1785	96	814	29	4.6
Avg.	334	327	8.9	5430	446	4346	90	18.8

Sources: Compendium of Tourism Statistics (WTO,2006) and McElroy (2003, Table 1).

Notes: 1. 2004 or latest year available

2. ALOS = average length of overnight visitor stay (nights)

3. Mayotte and St. Pierre de Miquelon were excluded because of the lack of published tourism data.

4. Calculated as: $[(\text{Tourists} \times \text{ALOS}) + \text{Day}] / (\text{Population} \times 365) \times 1000$.

Methodology

Twenty-four variables taken from The World Factbook (CIA, 2006) were used to profile

SITE and MIRAB islands. Twelve measured economic structure and performance, five each

measured both social and demographic behavior, and one indirectly measured tourism infrastructure, number of airports with paved runways. Finally, because of its prominence in the literature (Baldacchino, 2006; McElroy and Pearce, 2006), the influence of political status was measured with one (1) indicating sovereignty and zero (0) indicating dependency. Again based on the literature, it was hypothesized that SITEs would outperform MIRAB islands.

Twenty-nine small islands were selected for the study according to two criteria: less than one million in population and clearly identified in the literature as either MIRAB (Bertram and Watters, 1985; Bertram, 2006) or SITE (McElroy, 2006). The 12 selected MIRAB islands included two in the Atlantic (Saint Pierre and Miquelon, Sao Tome/Principe), two in the Indian Ocean (Comoros, Mayotte), and eight in the Pacific (Cook Islands, Federated States of Micronesia, Kiribati, Marshall Islands, Niue, Samoa, Tonga, Tuvalu). The 17 SITE islands selected included one in the Atlantic (Bermuda), eleven in the Caribbean (Anguilla, Antigua, Barbados, British Virgin Islands, Cayman Islands, Dominica, Grenada, Monserrat, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and Grenadines), two in the Indian Ocean (Maldives, Seychelles), two in the Pacific (Guam, French Polynesia), and Malta in the Mediterranean.

Results

Table 2 displays average values of the 24 variables by island type. T-values are included to assess statistical significance based on a two-sample means test. Overall the analysis indicates distinct profiles. SITE economies are considerably more affluent with per capita GDP (\$16,606) over four times higher (\$3,533) than their MIRAB counterparts. They also display marked diversification away from income-inelastic agriculture (8 vs. 21%) activity and toward income-elastic services (74 vs. 55%). They also exhibit much higher labor force participation (44 vs. 29%) and electricity production than their MIRAB neighbors. Although

SITES also demonstrate lower inflation and unemployment and higher GDP growth and number of airports with paved runways, these variables are not statistically significant.

Table 2

MIRAB Island Profiles versus SITES Profiles, 2006¹			
Variable	MIRAB	SITES	t-value²
GDP Growth Rate	2.69	4.11	-1.2
GDP per capita (US \$)	3,533	16,606	-2.92*
Share of GDP in Agriculture	21.25	7.58	4.03*
Share of GDP in Industry (%)	23.9	18.52	1.07
Share of GDP in Services (%)	54.8	73.8	-3.97*
%Population in Labor Force	29.2	41.04	-2.80*
Unemployment %	16.52	10.99	1.63
Inflation %	4.82	2.70	1.54
Electricity Production (Million Kwh)	52.4	496	-2.68*
Electricity Consumption per 1,000 pop.	328	331	-0.01
External Debt (Million \$)	169	268	-1.41
Population	147,561	135,629	0.19
Population Growth Rate %	1.45	1.026	0.91
Birth Rate per 1,000 population	28.35	16.79	4.03*
Death Rate per 1,000 population	6.41	6.37	0.08
Net Migration Rate per 1,000 population	-3.99	-0.17	-1.38
Infant Mortality Rate per 1,000 births	33.6	14.3	2.76*
Total Fertility Rate (children/women)	3.83	2.124	4.25*
Adult Literacy %	88.9	95.54	-1.26
No. Cell phones per 1,000 population	105	509	-6.26*
No. Television Broadcasting Stations	1.64	2.24	-1.12
No. Internet users per 1,000 population	146	278	-2.10*
No. Airports w. paved runways	3.60	5.5	-0.79
Political Status ³	0.750	0.588	0.90

Consonant with their greater level of development, SITE islands display greater demographic maturity and social advancement. In contrast to MIRAB islands, they exhibit lower average

Notes:

¹ Average values for 2006 or latest year available.

² *Denotes .05 level of statistical significance or above.

³ 1.0 for independent country and 0.0 for dependent country.

birth rates (17 vs. 28), and infant mortality (14 vs. 34). Similarly, SITEs average lower total fertility, i.e. 2.1 versus 3.8 children born to women of child-bearing age. They also demonstrate lower (recent year) population growth (1 vs. 1.5%) and higher adult literacy (96 vs. 89%), although these latter two differences are not statistically significant. Finally, they boast nearly five times the usage of cell phones (509 vs. 105 per 1,000 population) and nearly twice the prevalence of internet users. On the other hand, size as measured by population and political status do not distinguish the profiles.

Conclusion

This provisional study constructed comparative profiles of 17 SITE and 12 MIRAB islands less than one million in population. It revealed that the two island types are empirically distinct and that SITE islands outperformed their MIRAB counterparts economically, demographically and socially. Further research should move in at least two directions: duplicating this analysis with an expanded sample size, and contrasting these two island models with other types (offshore bank centers, mineral exporters, etc.) as suggested by Bertram and Poirine (2007).

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