

Tourism and Economic Growth in Trinidad and Tobago: the case of a small oil and gas exporting country

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Overview

- **Developing countries in their quest for economic growth and development, have experimented with various growth strategies:**
- Import substitution industrialization
- Export led-growth
- and most recently Tourism led growth.

Overview (cont'd)

- **Tourism led growth falls under the auspices of the Services led growth paradigm, Ghani and Kharas (2009)**
- developing countries with an initially low technological base can grow by focusing on their comparative advantages
- A most viable alternative to industrialization

Overview (cont'd)

- **Not much research on small open oil and gas exporting countries: Trinidad and Tobago**
- **Most recent study is by Hosein and Tewarie (2004):**
 - Validated TLGH
 - Unable to find any Granger causality evidence

Overview (cont'd)

- **This study contributes to the literature by:**
- **Using multivariate cointegration and innovation accounting methodologies to evaluate**
 - the applicability of the TLGH
 - Granger causality
 - The nexus between output and tourism expansions
- **Advice for policy makers in Trinidad and Tobago**

Previous Literature

- **Baluguer and Cantavella-Jorda (2002) showed that the TLGH is applicable to developed countries**
- quarterly time series data spanning the first quarter of 1975 to the first in 1997
- Find a long run relationship between tourism with economic growth and the real effective exchange rate
- tourism granger causes economic growth

Previous Literature (cont'd)

- Tiwari (2011), Akinboade and Braimoh (2009), Kim et al (2006) e.g validated TLGH for BRICS and Asians countries.
- Durbarry (2004): tourism can be an alternative to conventional exports as a vehicle of economic growth in the island economy of Mauritius
- disaggregating exports he found that tourism expansion (1%) via its multiplier effects, increases economic growth the most (0.8%) as compared to similar increases in commodity (0.4%) and manufacturing (0.5%) exports.

Previous Literature (cont'd)

- Lorde et al (2011), focusing on Barbados, utilized innovation accounting, cointegration and causality methods
- the specification of output and the statistical techniques employed can influence whether the directional relationship is of the long or short run.
- depending on how output is measured the results could be contrasting.
- warned against the over dependence of the tourism sector as a single engine of growth, perhaps warning of Dutch disease effects

Previous Literature (cont'd)

- **Hosein and Tewarie (2004): first attempt at validating TLGH in case of T&T**
- find that tourism growth is associated with economic growth in Trinidad and Tobago
- Cumulative experience functions and correlation estimates suggest causality runs from tourism to economic growth
- No evidence of Granger causality
- **This current study undertakes a multivariate cointegration approach in an attempt to search for evidence of Granger causality**

Methodology

- The study employed quarterly data of tourist arrivals over the period 1986 Q1 to 2010 Q4
- Not seasonally adjusted, to guard against the loss of critical long run information
- Centered (orthogonalized) dummy variables
- Tourist arrival data obtained from CTO, Industrial production index (output), REER and exports from IFS database
- All transformed into their natural logarithmic form hence the estimated coefficients can then be interpreted as elasticity's, Oh (2006) and Kim et al (2006)

Methodology(cont'd)

- This study utilizes:
- ADF , KPSS and the Lumsdaine and Papell (1997) unit root tests
- Johansen cointegration technique
- VECM estimation
- Impulse response analysis
- Variance Decomposition analysis
- Granger causality (Wald) tests

RESULTS: Unit Root Tests

Variable	ADF Null of one unit root		KPSS Null of no unit root		Lumisdaine and Papell Null of one unit root	
	Level	1 st Diff.	Level	1 st Diff.	Level	Breakpoints
IPI	0.7469	-8.9135	0.9935	0.1791	-0.2733	1996Q4,2002 Q3
Tour	0.0634	-2.3649	0.7977	0.3323	0.3159	1997Q1,2008Q2
Reer	-1.1382	-5.5445	0.8997	0.3878	0.7578	1999Q1,2007Q3
Xm	-1.0878	-11.140	0.8777	0.0524	-3.7139	1998Q1,2008Q2

Co-integration Results

Null Hypothesis	Alternative Hypothesis	Test Statistic	0.5 Critical Value	P-Values
Trace Test				
r=0	$r \leq 1$	75.0205	54.079	0.0002
r=1	$r \leq 1$	29.4826	35.1927	0.1812
Max Eigenvalue Test				
r=0	$r \leq 1$	45.5379	28.5881	0.0002
r=1	$r \leq 1$	15.1062	22.2996	0.3664

Long Run Results

Cointegrating Vector $\text{tour} = 21.5 + 0.019\text{ipi} - 2.76\text{reer} + 0.447\text{xm}$

Dependent Variable in VECM	ECT	t-statistics
D(IPI)	-0.017	-1.111
D(TOUR)	-0.209***	-6.869
D(REER)	-0.008	-0.386
D(Xm)	0.032	0.483

***, **, * significant at 1%, 5% and 10% levels respectively



Short Run Results

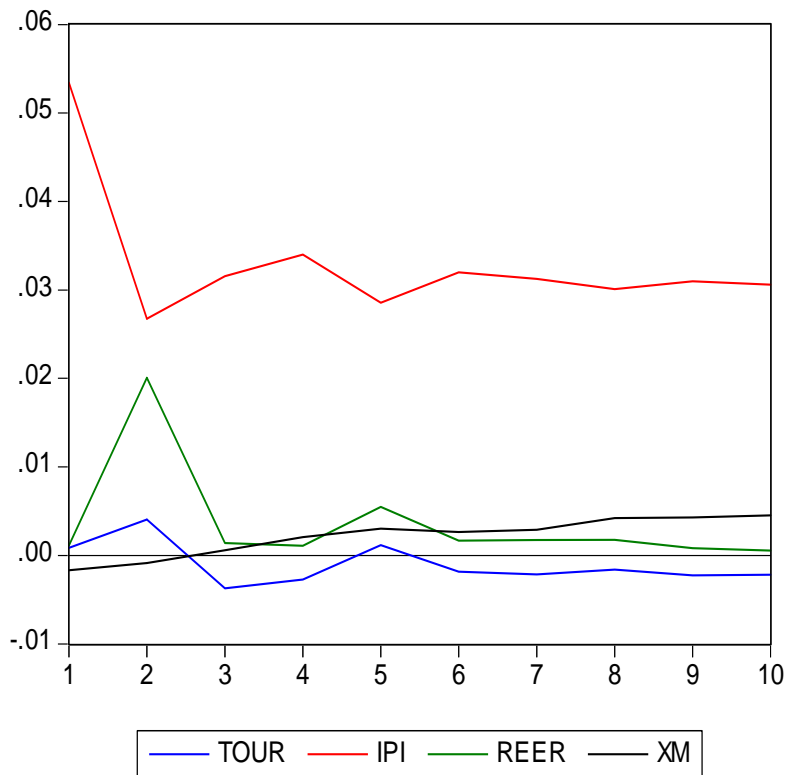
Dependent Variable	Null Hypothesis	Wald Statistic
IPI(Output)	Reer causes Output	16.4167***
TOUR	Xm causes Tour	13.9898***
REER	Output causes Reer	5.7738*
Xm	Reer cause Xm	8.1574***

(* , ** , *** significant at 1,5 and 10%)

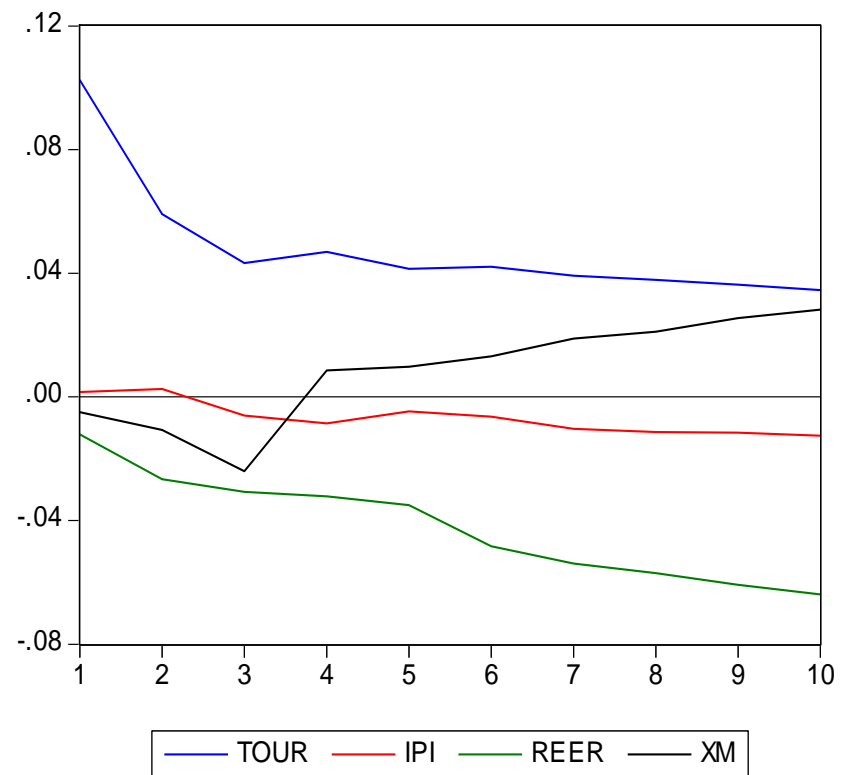


Results (Impulse responses)

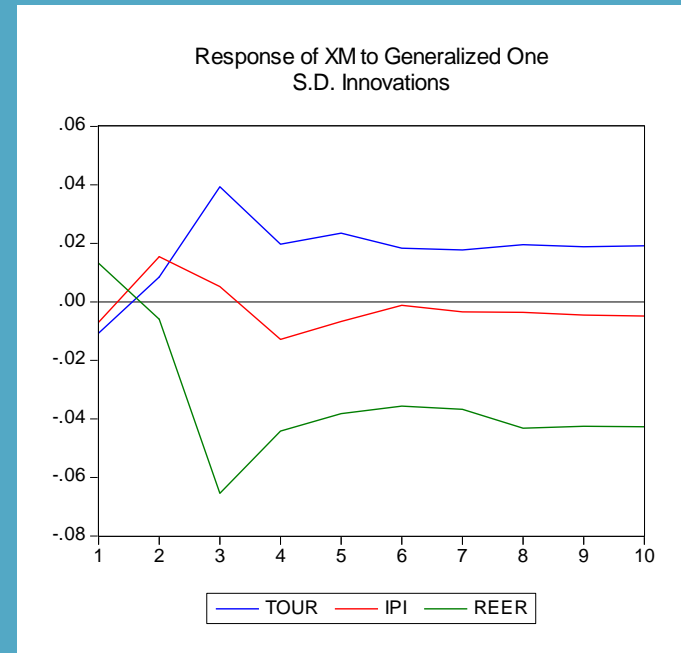
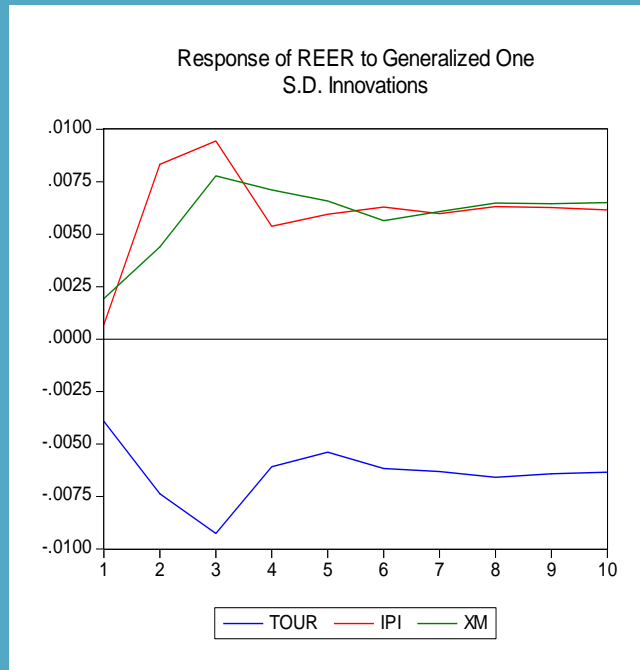
Response of IPI to Generalized One S.D. Innovations



Response of TOUR to Generalized One S.D. Innovations

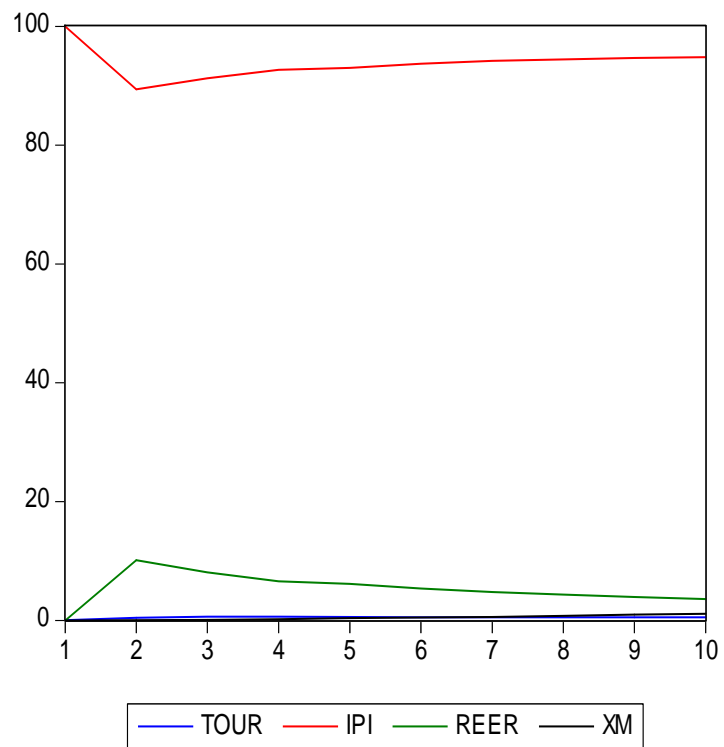


Results (Impulse responses cont'd)

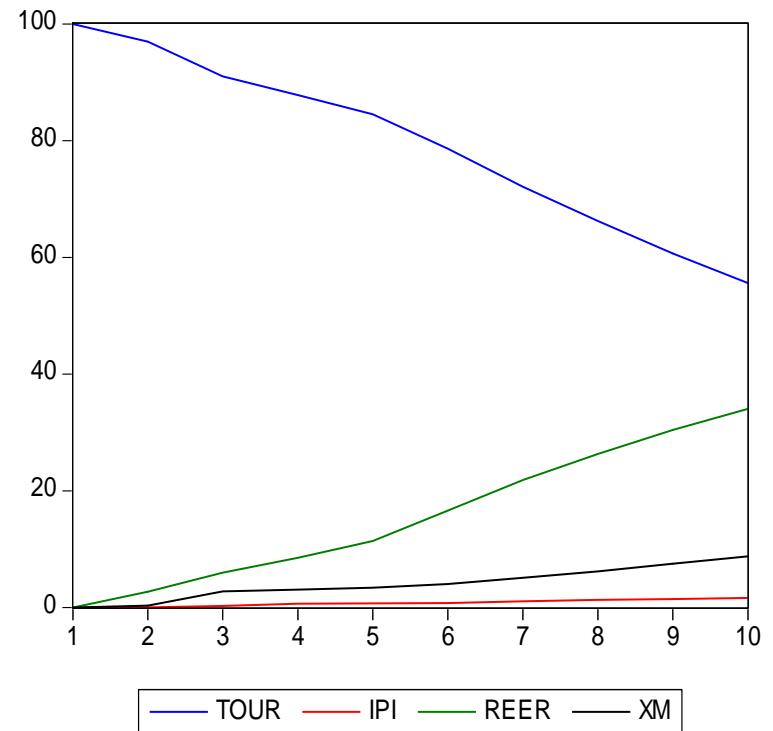


Results (variance decompositions)

Variance Decomposition of IPI



Variance Decomposition of TOUR



Conclusions

TLGH applicable for T&T; as the results of the cointegration tests revealed the presence of a long run equilibrium relationship between tourism expansion and economic growth

Innovation accounting methodologies did not support the TLGH they suggested that **economic growth drives tourism expansion (output led tourism hypothesis)**

No evidence of Granger causality between tourism and economic growth

Dutch Disease effects of the appreciation of the real effective exchange rate has an indirect (negative) impact on tourism: innovation accounting and Granger causality analyses

Policy Recommendations

Support for the economic diversification of the economy via the expansion of output.

This will serve two purposes; the mitigation the Dutch disease effects of the appreciation of the real effective exchange rate which will then allow for tourism growth which will add further impetus to the economic diversification processes.

Development of the tourism linkages will develop the long and short run bi-directional relationships between tourism and the other productive sectors of the economy this point was highlighted by Lewis and Jordan (2008) in a study on Trinidad and Tobago.

Focusing on small scale operations: most likely to be owned by nationals and scattered all over the island, will develop greater tourism multipliers

Carnival Tourism, be looked at

Conclusions

- As a final parting word, **in the development of tourism, care must be taken that the old Plantation Economy is reproduced**, which has no backward or forward linkages with the rest of the economy....”the establishment and development of tourism in most Third World countries is usually externally oriented and controlled, and mainly responds to external market demands...and also lead to ‘alien’ development to which local people cannot relate and respond, both socially and economically,” Akama (1997)

THE END

**MUCH THANKS
FOR YOUR
ATTENTION.**

