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The Role of Government in Tourism: Linking Competitiveness, Freedom, and Developing Economies

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Abstract

In recent years, governments of developing countries have been much more active in destination management and development than they used to be in the past. However, the challenge many governments face is to determine an appropriate level of involvement. This study investigates the role government plays in tourism competitiveness by applying a panel data analysis to the Central American region. The results reveal that government plays an important role in tourism. The data provide evidence that a new theory may emerge as it pertains to tourism and developing countries. Furthermore, such discovery only reinforces the issue of free riders tourism faces and the role of 'shadow' economy in the Central American region.

Key words

Competitiveness, government, economic freedom, developing economies

JEL classification: H11, O11, Z38

Introduction

In recent years, governments have been much more active in destination management and development than they used to be in the past, paying bigger attention to the drivers of competitive advantages. In 2013 at the G20 summit in Los Cabos – Mexico, governments officially recognized tourism as a key vehicle for job creation, economic growth and development (UNWTO, 2013). The reason why governments get involved in tourism development can be attributed to two main factors. First, only governments can create an environment that is conducive for the tourism industry to compete (Devine & Devine, 2011). Their policies often address a number of objectives, ranging from economic and environmental to social and educational, which can strengthen the pull factor of the country as a destination (Bull, 1995; Devine & Devine, 2011; Tang & Jang, 2009). Furthermore, only governments have the necessary legitimate power to provide security, political stability, legislation, and financial framework to enhance tourism development (Ritchie & Crouch, 2003; Tang & Jang, 2009).

Second, tourism is embodied by free rides and its performance largely depends on the success of other industries (Croes, 2011; Michael, 2001). For example, a hotel may not receive full benefits from cleaning beaches, however, having a clean beach is important to the hotel profitability and its success. Therefore, the provision of public goods (clean beaches) is crucial for adding value to tourists and may influence the destination choice (Croes, 2011). Since the private sector often does not have such abilities and capabilities, the ability of a government to identify these externalities is key for the destination to maximizing the benefit derived from tourism. Therefore, government involvement is a prerequisite to achieve successful destination growth by creating an environment that is capable to compete (Bull, 1995; Croes, 2011; Michael, 2001; Croes & Kubickova, 2013).

The challenge of government involvement in tourism development is to determine the appropriate level of involvement in order to successfully regulate the activities of individuals and businesses. Such debate has been controversial in literature as reflected in the writings by free-market enthusiasts (Hume, 1886; Hayek, 1988 ; Friedman, 1962), pragmatic voices of government's role (Coase, 1960), and Marxist advocates (Lenin, 1916; Marx & Engels, 1848; Trotsky, Hansen, Novack, Burnham, & Eastman, 1973). For example, Adam Smith believed that the primary role of government was the protection from external threats, provision of services which benefit the community but the market cannot provide, and enforcer of law and order (Michael, 2001). When a government oversteps these boundaries, it jeopardizes the freedom provided, leading to a possible market failure. Then, the debate shifts from governments' need to intervene to when it is justified and legitimate for a government to get involved, which services to provide and to what extent (Bartik, 1990; de Haan & Strum, 2000; Michael, 2001; Wolf, 1997; Zerbe & McCurdy, 1999). Thus, this study tries to understand such relationships.

Specifically, the relationship between the government involvement (reflected by freedom provided) and the tourism competitiveness is being examined. As of today, this has not been addressed in tourism literature and a very limited debate exists about the

importance of government when the enhanced tourism competitiveness is being sought (Wint, 1998). Previous research on government mainly addressed its impact on sustainability, community, tourism arrivals, and poverty alleviation. Other studies investigated the relationship between economic freedom and economic growth, failing to address the destination competitiveness. Therefore, understanding the connection between government, the level of freedom it provides and the tourism competitiveness is very important, especially for those countries that heavily depend on tourism as a main economic driver.

The theoretical concept in this study is grounded on Dwyer and Kim's (2003) definition of tourism competitiveness and Sen's argument about the role of freedom. Sen (1987, 1999) argues that freedom provides the opportunities to achieve objectives that people have. Dwyer and Kim's (2003) definition allows to incorporate the concept of freedom into the tourism competitiveness and points out that freedom is needed to achieve competitiveness. Their definition states that "for a society, improved competitiveness translates into new jobs and better living conditions ... the ultimate goal of competitiveness is to maintain and increase the real income ... of a nation under free and fair market conditions" (p. 372). In this sense, the tourism competitiveness is viewed as an antecedent for destination development, under free and fair market conditions. Therefore, freedom of choice becomes central to economic evaluation, impacting the competitiveness level of a destination.

Literature Review

The role of government

For several decades, an extensive debate has been raging over when it is legitimate for government to intervene in private affairs, which public services to provide, and how to regulate the activities of businesses/individuals (Datta-Chaudhuri, 1990; Michael, 2001; Zerbe & McCurdy, 1999). As Zerbe and McCurty (1999) state, "full-scale government intervention should be undertaken only if it can be shown that a less-intrusive generic policy cannot be utilized or that an effective contract for private production cannot be designed to deal with the market failure" (p. 560). If government is unable to address the market failure, the impact can be far reaching. Such government inaction can lead to poverty, depression, and loss of lives as seen in the case of hurricane Katrina (Sobel & Leeson, 2006).

The government intervention is particularly necessary in situations that provide large net gains or where everyone benefits, maximizing social welfare (Hall, 2006; Wolf, 1988). When the pursuit of private sector leads to a reduction in public welfare, some scholars posit that under that condition government regulation becomes the vital solution either by prohibiting or mandating some activities in order to correct such market failure (Acemoglu & Verdier, 2000; Karnani, 2011; Wint, 1998). This view resonates with Devin and Devin (2011) who assert that if planning, promotion and management of tourism "were left entirely to the private sector, this could result in the unbalanced development of

infrastructure and market expansion, with the risk of growing congestion and increased pressure on environmental resources" (p. 1253).

Conversely, others believe that governments often lack an ability to intervene with the benefits of the society, let alone are able to put policies and procedures in place that would correct such failure (Hall, 2006). If government is unable to address market failure, the impact can be far reaching, leading to poverty and depression (Stiglitz, 2012). Even though the debate on the topic of the government intervention often leads to inconclusive findings in the academic literature (Datta-Chaudhuri, 1990), one is sure; markets will fail for various reasons. Once that occurs, governments, together with private sectors, will try to find an optimal mix of activities to fix such failure. If government fails (unable to fix such failure), it can negatively impact the entire economy, competitiveness, and freedom provided. Therefore, this study utilizes the level of freedom as a measurement of the government involvement.

The Role of Freedom

According to Sen (1999), freedom is necessary as it provides the opportunity to achieve objectives that people have, to lead a life they choose, no matter what the process or procedures are. For example, the improvement in education of the whole population increases not only the freedom of citizens but also the economic freedom in that destination. Educated citizens are able to improve their capability and self-consciously choose the life they value, thus directly increasing their freedom. In addition, citizens may experience a higher income at their disposal, thus indirectly increasing their economic freedom (Knopf, 1999). Therefore, freedom of choice becomes central to the economic evaluation and the living standards one can enjoy.

If one loses the ability to take an action or to choose an alternative due to the lack of freedom, it can lead to social and economic unfreedom and be directly linked to the economic poverty (Croes, 2010; Pattanaik & Xu, 1990; Sen, 1987; Sen, 1999). For example, as Sen (1999) points out, the lack of freedom can rob people of choices to satisfy hunger, to be adequately clothed, or to enjoy clean water. In other instances, the lack of freedom (unfreedom) can be linked to the lack of social care or provision of education, leading to poverty.

He Sen (1999) identifies five instrumental freedoms which contribute to the capability of a person to live freely, influencing the overall freedom they possess, thus impacting the level of competitiveness in the destination. Specifically, he identifies the following freedoms: political, economic, social opportunity, transparency guarantees, and protective security, each of them helping to advance the general capability of a person, and at the same time complementing and strengthening one another.

Economic Freedom

In general, economists agree that the economic freedom is one of the main pillars of a country's institutional structure and play an essential role in enhancing the well-being off an individual within a society (Stroup, 2007). It can be defined as "opportunities that individuals respectively enjoy to utilize economic resources for the purpose of consumption, or production, or exchange" (Sen, 1999, p. 39). The economic freedom centers around the concept of freedom to choose and supply resources, while encouraging competitiveness and securing property rights, leading to economic growth and well-being in society (Berggren, 2003; de Haan & Sturm, 2000; Jenkins & Henry, 1982; Stroup, 2007; Tang & Jang, 2009; World Bank, 2012).

Therefore, institutions that provide very high and stable economic freedom have the ability to allow the economy to function and grow (Berggren, 2003), having impact on private enterprises and residents' well-being. It should not be a surprise to conclude that the economic freedom is a positive and significant macroeconomic determinant of economic growth (Aixalá & Fabro, 2009; de Haan & Sturm, 2000; Nelson & Singh, 1998; Sen, 1999; Scully, 2002). With the higher economic growth, governments are able to collect additional taxes/fees, thus, invest in their education system and healthcare, providing the better quality of life, thus impact on the competitive level of that destination. In general, those countries that achieved a higher level of the economic freedom reached a higher level of prosperity and growth; hence, demonstrated a higher level of competitiveness (Stroup, 2007).

A number of empirical studies have provided evidence that the economic freedom may play an important part in justifying the cross-country differences (Dawson, 2003; de Haan & Siermann, 1998; de Haan & Strum, 2000; Doucouliagos & Ulubasoglu, 2006). Previous studies analyzed the correlation between the economic freedom and the economic growth. De Vanssay and Spindler (1994), Scully and Slottje (1991), Nelson and Singh (1998), Scully (2002) found a positive relationship between the two, which is also supported by Sen (1999). In general, those countries that achieved a higher levels of the economic freedom and reached higher levels of prosperity and growth; hence, demonstrated a higher level of competitiveness (Stroup, 2007). Thus, the importance of government (as represented by the level of the economic freedom) in achieving the tourism competitiveness cannot be overlooked, guiding the following hypothesis:

H 1: The level of government involvement affects the destination's tourism competitiveness

H 2: The destination's tourism competitiveness affects the level of government involvement

Economic Freedom & Tourism Competitiveness

The previous discussion suggests the possibility of four different scenarios where a country can be defined as economically free or un-free and at the same time have high—or low—levels of tourism competitiveness, depending on the country orientation, the time investigated, and the level of tourism development. Therefore, any destination can be characterized by the following four characteristics: (1) economically free with a high level of tourism competitiveness, (2) economically free with a low level of tourism competitiveness, (3) economically un-free with a high level of tourism competitiveness, and (4) economically un-free with a low level of tourism competitiveness. The four possible scenarios with can be summarized in the following matrix.

Table 1 Economic Freedom & Tourism Competitiveness Matrix

	Not Economically Free (NEF)	Economically Free (EF)
High Tourism Competitiveness (HTC)	NEF & HTC (Cuba)	EF & HTC (USA, Switzerland)
Low Tourism Competitiveness (LTC)	NEF & LTC (Nepal)	EF & LTC (Peru)

Source: author's own

Central American region

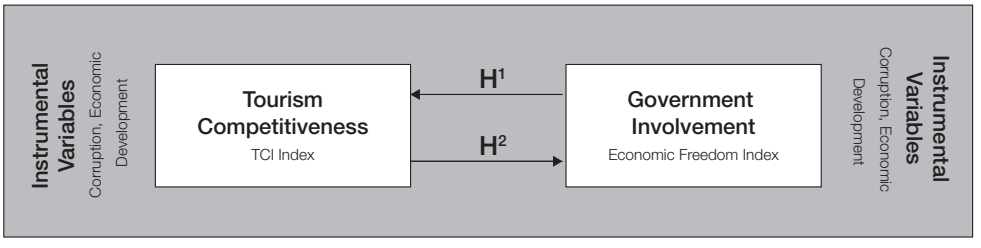
This study will be applied to developing countries as tourism has become an important driver for socio-economic progress and growth. It has been recognized as the main export category and key source of income, accounting for 83% of exports and contributing up to 25% to GDP, compared to developed nations where tourism contributes to only 2–10% of GDP (Jenkins & Henry, 1982; Sasidharan, Sirakaya, & Kerstetter, 2002; UNWTO, 2010). In recent years, the rate of tourism growth in developing countries has approximately doubled the world average growth rate and almost tripled the growth for high income countries. It is therefore not a surprise that many of the developing countries view tourism as an opportunity to relieve some of the constraints on the development process (Jenkins & Henry, 1982).

Specifically, this study concentrates on the region of Central America, which is comprised of seven countries: Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama. This region is considered one of the poorest regions in the world, with half of the population living in poverty (Hammill, 2007). Tourism has recently emerged as a primary development strategy, becoming one of the main generating sectors of currencies in the economy (IHT, 2013; RIE, 2010). Thus, the governments of the Central America region are recognizing the need to establish policies and procedures, specifically geared towards improving the tourism competitiveness. Knowing and understanding how government actions impact on the tourism competitiveness in the region and vice-a-versa will provide useful information on the changes that need to be made in the future.

The Data

In order to test the proposed research questions, the variables under considerations are the economic freedom and the tourism competitiveness. In addition, two control variables (corruption and economic development) were included in order to control for extraneous variables, which may have some systematic effect on the dependent variable and can produce confound results (Zikmund et al., 2010). Furthermore, two dummy variables were selected as they may have influence on the investigated relationship. Specifically, (1) Hurricane Mitch in 1998–1999, affecting Honduras, Guatemala, and Nicaragua, and (2) September 11, 2001 terrorist attack (See Figure 1).

Figure 1 Empirical Model



Source: author's own

The researchers used yearly data from 1995 until 2007 for all seven Central American countries (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama). The following section will explain how each variable/construct is represented in this study and why corruption and economic development were selected as control variables.

Variable 1: Tourism Competitiveness

The first variable, the tourism competitiveness, was measured by the Tourism Competitive Index (TCI) developed by Croes (2010), allowing for comparisons of tourism performance over time. The index is based on the ability of realizing memorable experience and can provide good indication of performance of a destination. The TCI index is composed of three outputs, each portraying different aspects of the industry's productivity, departing from the input/output to output/performance base approach (Croes, 2010). Specifically, tourism receipt per capita, average tourism receipt growth rates, and tourism added values as percentage of the GDP were used.

Variable 2: Economic Freedom

The second variable, the economic freedom, was measured by the Economic Freedom Index. It is the most commonly used index reported annually and published by Fraser Institute in Economic Freedom of the World. The index measures the degree of the

economic freedom presented in five major areas, ranging from 0 (un-free) to 10 (free): (1) size of government: expenditure and taxes, enterprises, (2) legal structure and security of property rights, (3) access to sound money, (4) freedom to trade internationally, and (5) regulation of credit, labor, and business (Fraser Institute, 2013).

Control Variables

The first control variable, corruption, was selected as countries experiencing lower corruption are typically economically stable, have government policies in place to support the tourism development, while at the same time providing better services for their citizens (Das & DiRienzo, 2010; DiRienzo, Das, Cort, & Burbridge, 2007; Enright & Newton, 2004, 2005). The Corruption Perception Index created by the Transparency International and adapted by the Heritage Foundation is an indicator of perception of public sector corruption (administrative and political corruption) (Transparency, 2014). The CPI index is based on a 10-point scale where zero indicates a very corrupt government.

The second control variable, the economic development, was selected as countries with higher levels of development tend to be more competitive than others, tend to be safer, with well-established infrastructure and education systems (Das & DiRienzo, 2010). In other words, the economic development is correlated with the destination development. In this study, the economic development is measured by the Gross Domestic Product (GDP), defined as the sum of gross value added by all resident producers in the economy, as published by the World Bank.

Dummy Variables

The model applied also allows for the possibility of exogenous shocks to the tourism competitiveness and the economic freedom that affected the region, such as Hurricane Mitch in 1998 and September 11 terrorist attract, being independent of other factors in the model. These exogenous shocks are necessary to include as they may have a significant impact on the economy of the destination over the years, affecting the current rate of the variables.

Methodology and Empirical Results

This study utilizes panel data analyses by means of econometric modeling as some phenomena are inherently longitudinal and causal inference may be strengthened by temporal ordering. Cross sectional data are of limited use in determining causal relations due to the potential correlation between variables (unit roots) due to the unobserved bias and endogeneity bias (Shiu & Lam, 2008). A panel data analysis resolves these challenges by allowing for repeating observations of a relatively large number of data over time and a consequent increase in degrees of freedom (Song, With, & Li, 2009). Furthermore, the panel data analysis allows to establish the temporal ordering of variables,

enhancing the researcher's ability to draw causal inferences from the data. By allowing repetitive observations and by controlling for omitted variables, the results provide more informative data, permitting a researcher to construct and test more complicated behavioral models with more accurate and efficient estimation results (Baltagi, 2001; Shiu & Lam, 2008, Song et al., 2009).

In order to analyze the relationship between the response and the explanatory variables, the basic equation can be expressed through the regression function:

$$Ey_{it} = \alpha + \beta_1 x_{it,1} + \beta_2 x_{it,2} + \ldots + \beta_k x_{it,k} + \varepsilon_{it}$$

where *i* represents the countries (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama) and *t* represents the time series dimension (1995–2007). The proposed research questions can be expressed as follows:

$$RQ1: TCI = f\ (EF, lnGDP, lnCORR, D) \quad (1)$$

$$RQ2: EF = f\ (TCI, lnGDP, lnCORR, D) \quad (2)$$

D represents dummies 1 and 2.

All models are estimated by using annual data from 1995 to 2007. The data were transformed into natural logs to facilitate the interpretation. The empirical results were obtained by using STATA 13 and SPSS 20. The panel data analysis consists of several steps. The assumption of homogeneity had to be tested in order to examine whether or not the intercepts and slope coefficients are assumed homogenous across the regions, which can be expressed as follows:

$$H_0: \alpha_1 = \alpha_{2 = \ldots =} \alpha_{n =} \alpha.$$

If the calculated value of F test is smaller than the critical value, the null hypothesis of homogenous slopes and intercepts should be accepted. If the null hypothesis is accepted, this means that the data can be pooled and the panel data modeling approach is appropriate (Song et al., 2009). However, if the null hypothesis is rejected, then the data cannot be pooled, and therefore the panel data approach is not appropriate (Frees, 2004; Song et al., 2009). The result indicated that the data are homogenous and can be pooled.

In addition, the Hausman specification test was utilized to determine if models have a fixed effect or a random effect. If the null hypothesis is not rejected (H_0: individual effects are uncorrelated with the other regressors in the model), then the random effect model is better than its fixed counterpart. The test revealed that the random effect estimator was suitable for the data analyses without producing any biased estimates.

The pre-estimation Lags order selection statistics for each construct is conducted as the appropriate lag selection provides more power to the investigated regressions. Such analysis was based on the value of Likelihood Ration (LR), Final Prediction Error (FPE),

Akaike Information Criteria (AIC), Hanna-Quinn Information Criteria (HQIC), and Schwarz Bayesian Information Criterion (SBIC). The optimal lag length for all variables (tourism competitiveness, GDP, corruption, and economic freedom) was set to be one.

The Pane Unit Root Test

Subsequently, Levin-Lin-Chu unit root test was conducted to determine if the constructs are stationary or non-stationary as economic time series depend on time and tend to wander (they have trend and noise). It is imperative to investigate the stationarity of the time-series data as incorrect choice of data transformation could provide biased results, thus leading to incorrect interpretations and misleading conclusions (Chiou-Wei¸Che, & Zhu, 2008; Croes & Rivera, 2010). Levin-Lin-Chu unit root test was selected as it is an appropriate test for data with a relatively short T (Kunst, 2011). In addition, it allows for individual-specific intercepts and time trends, suitable for panels of moderate size as the standard procedures may not be sufficiently powerful (Levin et al., 2002). Levin-Lin-Chu's (2002) model was utilized which can be expressed as follows:

$$\Delta\gamma it=\alpha_i+\delta_i t+\gamma_{i,t-1}+\sum_{l=1}^{p_i}\emptyset_{il}\,\Delta y_{i,t-l}+\epsilon_{i,t}$$

The results revealed that constructs appeared to be non-stationary in the level form (Table 2).

Table 2 Unit root test results

Constructs	Level Form (w/out trend)	Level Form (w/ trend)	1st Difference (w/out trend)	1st Difference (w/ trend)
TCI	-1.81**	-1.87**	-3.74*	-3.18*
GDP	4.283	0.85	0.093	-1.73**
CORR	-0.90	-3.07*	-5.92*	-5.84*
EF	-2.13**	1.32	0.79	-1.61***

Note: * significant at p< 0.0 1 ** significant at p< 0.05 levels of significance

Source: author's own

Since the unit root test is based on the assumption of cross-sectional independence, it assumes that countries are independent. However, this study incorporates the countries located in the same region, where these countries may have a possible influence on each other. Thus, it is possible to relax this assumption and allow for a limited degree of dependence via time-specific aggregate effects (SAS, 2014). This was utilized and the constructs were found to be the first difference stationary with the trend.

Cointegration and VECM

Given the results of a unit root in variables, the Johansen test was performed to indicate the number of cointegration in the VECM test, determining how many equilibriums are presented. The Johansen test can be viewed as a multivariate generation of the augmented Dickey-Fuller test, making it possible to estimate all cointegrating vectors when there are more than two variables (Dwyer, 2014). In addition, it can handle variables with the difference order of integration (Tang, 2011). If a set of variables is found to have one or more cointegrating vectors, then Vector Error Correction Model is suited for the data analysis (Baum, 2013; Hauser, 2014). The Johansen procedure with eigenvalues was employed as it can detect more than one cointegration relationship and is well suited for a multivariate system (Johansen, 1988, 1991; Verbeek, 1997). The existence of cointegration suggests that Granger causality should exist in at least one direction between the investigated constructs. The cointegration results are summarized in Table 3.

Table 3 Johansen test for cointegration

Trace Test			
Null Hypothesis	**Alternative Hypothesis**	**Test Statistics**	**5% critical value**
r = 0	$r \leq 1$	78.23	67.12
r = 1	$r \leq 2$	51.84	46.51
r = 2*	$r \leq 3$	27.81*	29.91
r = 3	$r \leq 4$	12.89	16.31
Max. Eigenvalue Test			
Null Hypothesis	**Alternative Hypothesis**	**Test Statistics**	**10% critical value**
r = 0	$r \leq 1$	32.81	30.8
r = 1	$r \leq 2$	26.71	24.9
r = 2*	$r \leq 3$	8.63*	18.9
r = 3	$r \leq 4$	7.66	12.7

Source: author's own

At 5% level, the test suggests that there should be at least two cointegration equations among the tourism competitiveness, quality of life, and economic freedom. In other words, the variables utilized in this study have a long run association.

Moreover, the testing could proceed to estimate the relationships between the tourism competitiveness and the economic freedom. Table 4 presents the estimated short- and long-term effects for the dependent variables utilizing VECM.

Table 4 VECM results

DV	H1 (TCI)	H2 (EF)
Δv_{t-1}	-0.119***	-0.008
Δv_{t-2}	-0.170***	-0.072
ΔEF	0.030 (1)	
ΔTCI		-0.208** (1)
ΔGDP	0.029 (2)	-0.055 (1)
ΔCORR	-0.056 (1)	-0.047 (3)

Note: * significant at p<0.01, ** at p<0.05 *** at p<0.10
Numbers in parentheses are lag lengths

Source: author's own

The results reveal the evidence of the long term causality running from the economic freedom to the tourism competitiveness. However, there is no evidence of the long term causality running from the tourism competitiveness to the economic freedom. In terms of the short-term causality, the VECM results show that there is evidence of the short term causality between the tourism competitiveness and the economic freedom. The Granger causality test was utilized to further investigate this relationship. The estimated results for the Granger causality reveal that the tourism competitiveness "Granger cause" the economic freedom (Table 5).

Table 5 Granger Causality: TCI & EF

Null Hypothesis	χ^2	Probability	Decision
EF does not Granger-cause TCI	0.63	0.888	Do not reject
TCI does not Granger-cause EF	5.20	0.022	Reject

Source: author's own

The results reveal no evidence of the short-term causality the other way around. In other words, the economic freedom does not cause the tourism competitiveness in the short term. This outcome implies that the impact the economic freedom has on the tourism competitiveness is over longer period of time, rather than imminent. This only fortifies the argument that well planned policies and procedures must be put in place to ensure the sustainable long-term growth and development in the region.

Regression Analysis

Finally, in addition to the VECM model, the study concludes with random effect robust regression analyses. Both statistics were utilized as they provide a different view of the results. Usually, regression estimates are a good start for any empirical analysis as they provide the first insight when testing different relationships. However, they are incapable of capturing the co-integration relationship that may exist between two variables (Hoxha, 2010). As Hoxha (2010) points out "though science can cause problems, it is not by ignorance that we will solve them" (p. 32). Therefore, this study analyzed the proposed relationship utilizing both methods whether the investigated relationships holds. The results for the regressions are summarized in Table 6.

Table 6 Regression results: TCI & EF

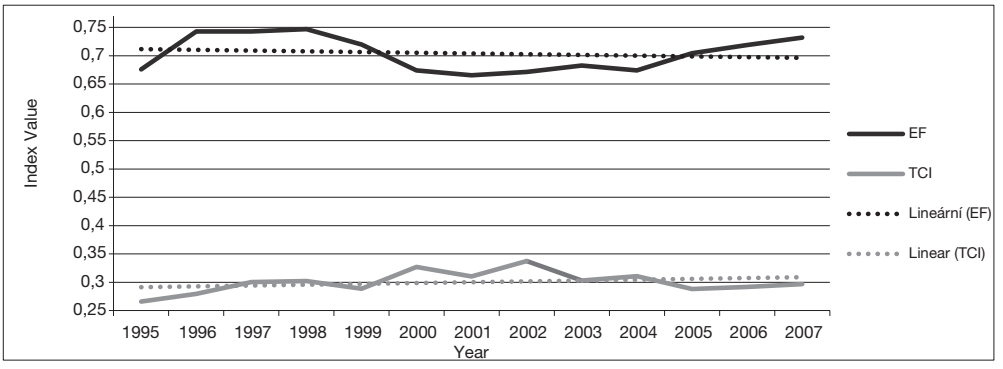
	TCI – dependent variable			EF – dependent variable		
	Coef.	**Std. Err.**	**z**	**Coef.**	**Std. Err.**	**z**
EF	-0.105	0.094	-1.11			
TCI				-0.061	0.069	-0.88
GDP	-0.048	0.090	-0.054	0.008	0.011	0.73
Corruption	0.004	0.014	0.31	0.002	0.045	0.05
D1	-0.014	0.009	-1.49	-0.003	0.012	-0.27
D2	-0.019	0.019	-1.01	-0.073	0.015	-4.60
Const.	-0.002	0.008	-0.26	0.007	0.001	4.04
Chi²	80.84*			68.35*		
R-squared	0.0670			0.103		
ADF	-8.45*			-9.60*		
Wooldrige Test	1.73			0.035		

Note: * significant at p<0.01, ** p<0.05, *** p<0.10 levels of significance

Source: author's own

The results reveal that the models were statistically significant. However, the economic freedom and the tourism competitiveness were not statistically significant. This reconfirms the previous results that the impact of the economic freedom on the tourism competitiveness is over long period of time rather than imminent. In addition, the results indicate that by increasing the economic freedom by one, the tourism competitiveness will decreases by 0.105 and by increasing the tourism competitiveness by one, the economic freedom will decreases by 0.061. Such a relationship can be seen in Figure 2.

Figure 2 Relationship between TCI & EF



Source: author's own

Figure 2 reveals that as the tourism competitiveness increases over the years investigated, the economic freedom decreases, confirming the previous findings.

Discussion

The VECM results confirm the original assumption that the level of the economic freedom will impact on the tourism competitiveness. The coefficients firmly support the long-term causality running from the economic freedom to the tourism competitiveness and also provide evidence of the short-term causality running from the tourism competitiveness to the economic freedom. Such findings provide evidence that freedom impacts on the tourism competitiveness.

Furthermore, the results indicate that as the economic freedom decreases, the level of the tourism competitiveness increases. A possible explanation may be due to the nature of tourism. Especially in the developing countries, the private sector is not able to get compensated for producing an extra benefit (clean beaches). However, the extra benefit (clean beaches) will impact on the competitiveness. This is where the externality argument is used to justify the government involvement. Croes (2011) has already pointed out that provision of public goods is crucial for the tourism competitiveness, making it a compelling argument for the government intervention. Since tourism is more susceptible to distortion and failure than other industries and embodied by free riders, the government involvement is important in terms of destination management, getting more involved in planning, legislation, financing, promotion, regulation, and monitoring tourism resources (Ritchie & Crouch, 2003; Tang & Jang, 2009). Therefore, the government actions must be taken into consideration when developing the tourism competitiveness, keeping in mind the possibility of failure. Especially when the tourism activity impacts on a destination in the territorial, environmental and social context.

However, the regression results reveal that there is no such evidence of a relationship between the economic freedom and the tourism competitiveness. Even though the over-

all model was statistically significant, the economic freedom nor the tourism competitiveness were. Therefore, the economic freedom does not affect the destination's tourism competitiveness and vice-versa, contradicting the original assumption.

There may be two possible explanations of such findings. First, as Sen (1999) points out, other detractors still remain. There may be other factors that influence such relationship, such as an income distribution, credit crunch, or availability and access to finance. For example, Sen (1999) often refers to the relationship among his five freedoms but he never establishes a scale of relationships among them (Navarro, 2000). Therefore, the economic freedom may have no impact on the tourism competitiveness as opposed to other freedoms (social freedom, transparent guarantees, and/or protective security).

This can be supported with the argument made earlier about Cuba and the USA. Cuba is ranked as one of the world's least economic free countries and is the least free country in the Latin America region, reaching 'repressed' status (Roberts, 2014). However, tourism has been growing in the region. Between 1995 and 2005, the average annual growth rate of international tourist arrivals was 11.8 percent, higher than in Belize or Costa Rica. In addition, Cuba had more arrivals in 2005 (2,261,000) than any of the Central American countries (WEF, 2012). If it is compared to the United States, the United States is characterized as economically free with 49,206,000 international arrivals in 2005. Thus, the level of economic freedom may not be the determining factor in tourism competitiveness as a country may be economically free or economically unfree and still experience tourism development.

A second possible explanation is in the way the economic freedom is being measured. This study utilizes the Economic Freedom Index which is composed of five variables. Specifically, the size of the government, legal structure and protection of property rights, access to sound money, international exchange rate, and regulation are combined into one construct. It can be hypothesized that combining these variables together may not impact the tourism competitiveness. However, these variables individually may have an impact on the tourism competitiveness. In addition, the results may be spurious. In other words, there may be another variable that is the true causal factor for the tourism competitiveness.

The variation from the regression model may be attributed to the statistical procedures utilized. The regression analysis is a process that allows the researcher to understand the relationship between a single dependent variable and several independent variables (Hair, Anderson, Tatham, & Black, 1995). However, the regression is incapable of capturing the co-integration relationship that may exist between two variables as the VECM model takes into account various information criteria and co-integration tests (Hoxha, 2010). Therefore, the difference between these two statistical procedures may exist.

Theoretical and Managerial Implications

This study provides a number of implications for tourism literature regarding the understanding of competitiveness and the role of government as it specifically pertains to the developing economies in Central America. First, in terms of the theoretical implications, this is the first time where the relationship between the economic freedom and the tourism competitiveness was analyzed. This may be early evidence of new insights that the tourism competitiveness impacts on the level of the economic freedom in the short-term. However, the economic freedom influences the tourism competitiveness over long-term, thus providing the evidence that a new theory may emerge as it pertains to tourism and developing countries.

In terms of the managerial implications, this study provides evidence that the economic freedom has a negative long-term effect on the tourism competitiveness and tourism competitiveness has a negative short-term effect on the economic freedom. Such discovery only reinforces the fact that the issue of free riders tourism faces and the role of 'shadow' economy in tourism development. This is particularly important for policymakers and political leaders in terms of destination management. It is imperative to create an environment that would decrease the size of 'shadow' economy. By providing a legal structure, having access to sound money, regulations, and/or lowering corruption could possibly lower the level of 'shadow' economy, thus, providing more taxes. By collecting more taxes, the government will have a necessary income to reinvest back into the economy on improving the tourism products.

Limitations and Future Research

With any research, limitations will occur due to the internal and external validity. In terms of the internal validity, secondary data were used for the data analyses. Using the secondary data poses a limitation on the ability of a researcher to verify the data's accuracy. Therefore, full trust is given to these reputable institutions collecting data employed in the study. In terms of the freedom construct, this study does not make any reference to the political context between countries investigated as urged by Navarro (2000). Following Navarro´s (2000) point of view, he states that even though Cuba and Chile were both considered economically unfree and characterized by their dictatorial regime, Castro's regime was rooted in the peasantry and working class (Lenin socialism) while Pinochet's regime was rooted in the dictatorship of a class (fascist capitalism). Not addressing it in this study may pose another limitation on the results. Another limitation deals with the omitted variables. Although the panel data analysis technique has much to offer, it also has some limitations. The researcher is often faced with failing to include a relationship or factors that are part of the multivariate system, thus leading to potential biases, facing problems with interpretation and hypothesis testing (Brandt & Williams, 2007).

Future studies should include not only the developing countries in other parts of the world, but also the developed countries to better understand the relationship investi-

gated as it compares to the level of economic development and the stage of tourism cycle. It would be interesting to see how countries within the Central American regions vary among themselves as tourism development has been uneven, with some countries attracting more tourists than others (Hammill, 2007). Furthermore, other variables related to the tourism competitiveness and economic freedom should be considered, going beyond the traditional indicators of macroeconomic growth. The academic literature of the last twenty years has lacked to include the variables related to the environmental and social costs generated by tourism. Thus, including those would allow researchers to gain further understanding of the investigated phenomena. Finally, deconstructing the economic freedom will allow to determine if any variation exists in explaining such a relationship, since the economic freedom is composed of five variables.

References

Acemoglu, D., & Verdier, T. (2000). The choice between market failure and corruption. *The American Economic Review,* 90(1), 194–211. DOI: 10.1257/aer.90.1.194.

Aixalá, J., & Fabro, G. (2009). Economic freedom, civil liberties, political rights and growth: a causality analysis. *Spanish Economic Review*, 11(3), 165–178.

Baltagi, B.H. (2001). *Econometric Analysis of Panel Data*. New York: Wiley.

Bartik, T. J. (1990). The market failure approach to regional economic development policy. *Economic development quarterly*, 4(4), 361–370. DOI: 10.1177/089124249000400406.

Baum, C. F. (2013). *VAR, SVAR and VECM models*. Retrieved from Boston College, EC 823: Applied Econometrics: http*://fmwww.bc.edu/EC-C/S2013/823/EC823.S2013.nn10.slides.pdf.*

Berggren, N. (2003). The benefits of economic freedom. *The independent review*, 8(2), 193–211.

Bull, A. (1995). *The economics of travel and tourism*. South Melbourne, Australia: Addison Wesley Longman.

Brandt, P. T., & Williams, J. T. (2007). *Multiple Time Series Models*. Thousand Oaks/London/New Delhi: Sage Publications.

Chiou-Wei, S. Z., Chen, C., & Zhu, Z. (2008). Economic growth and energy consumption revisited – Evidence from linear and nonlinear Granger causality. *Energy Economics*, 30, 3063–3076. DOI: 10.1016/j.eneco.2008.02.002.

Coase, R. H. (1960). Problem of Social Cost. *The Journal of Law and Economics*, 3 (1), 1–44. DOI: 10.1086/466560.

Croes, R. (2010). *Small island tourism competitiveness: expending your destination's slice of paradise*. Retrieved from http://hospitality.ucf.edu/files/2011/09/Version-2-Small-Island-Tourism-Competitiveness_Jan07_2010.pdf.

Croes, R. (2011). *The small island paradox: Tourism specialization as a potential solution*. Lambert Academic Publishing.

Croes, R., & Kubickova, M. (2013). From potential to Ability to compete: Towards a performance-based tourism competitiveness index. *Journal of Tourism Marketing and Management*, 2(3), 146–154.

Croes, R., & Rivera, M. A. (2010). Testing the empirical link between tourism and competitiveness: Evidence from Puerto Rico. *Tourism Economics*, 16(1), 217–234. DOI: 10.5367/000000010790872114.

Das, J., & DiRienzo, C. (2010). Tourism competitiveness and corruption: a cross-country analysis. *Tourism Economics*, 16(3), 477–492. DOI: 10.5367/000000010792278392.

Datta-Chaudhuri, M. (1990). Market failure and government failure. *Journal of Economic Perspectives*, 4(3), 25–39. DOI: 10.1257/jep.4.3.25.

Dawson, J. W. (2003). Causality in the freedom-growth relationship. *European Journal of Political Economy*, 19(3), 479–495. DOI: 10.1016/S0176–2680(03)00009–0.

de Haan, J., & Siermann, L. J. (1998). Further evidence on the relationship between economic freedom and economic growth. *Public choice*, 95 (3/4), 363–380. DOI: 10.1023/A:1005072108159.

de Haan, J., & Sturm, J. (2000). On the relationship between economic freedom and economic growth. *European Journal of Political Economy*, 16(2), 215–241. DOI: 10.1016/S0176–2680(99)00065–8.

De Vanssay, X., & Spindler, Z. A. (1994). Freedom and growth: Do constitutions matter? *Public Choice*, 78(3–4), 359–372. DOI: 10.1007/BF01047764.

Devine, A., & Devine F. (2011). Planning and developing tourism within a public sector quagmire: Lessons from and for small countries. *Tourism Management*, 32(6), 1253–1261. DOI: 10.1016/j.tourman.2010.11.004.

DiRienzo, C. E., Das, J., Cort, K. T., & Burbridge, J. (2007). Corruption and the role of information. *Journal of International Business Studies*, 38(2), 320–332. DOI: 10.1057/palgrave.jibs.8400262.

Doucouliagos, C., & Ulubasoglu, M. A. (2006). Economic freedom and economic growth: Does specification make a difference? *European journal of political economy*, 22(1), 60–81.

Dwyer, G. P. (2014). The Johansen Test for Cointegration. Retrieved from: http://www.jerrydwyer.com/pdf/Clemson/Cointegration.pdf.

Dwyer, L., & Kim C. (2003). Destination competitiveness: determinants and indicators. *Current issues in tourism*, 6(5), 369–414.

Enright, M. J., & Newton, J. (2004). Tourism destination competitiveness: a quantitative approach. *Tourism Management*, 25(6), 777–788. DOI: 10.1016/j.tourman.2004.06.008.

Enright, M. J., & Newton, J. (2005). Determinants of tourism destination competitiveness in Asia Pacific: Comprehensiveness and Universality. *Journal of Travel Research*, 43(4), 339–350. DOI: 10.1177/0047287505274647.

Fraser Institute (2013). *The Economic Freedom of the World Index*. Retrieved from http://www.fraserinstitute.org.

Frees, E. W. (2004). *Longitudinal and Panel Data. Analysis and Applications in the Social Sciences*. Cambridge, United Kingdom: Cambridge University Press.

Friedman, M. (1962). *Capitalism and Freedom*. Chicago: University of Chicago Press.

Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). *Multivariate Data Analysis: with Readings*. Englewood Cliffs, NJ: Prentice Hall.

Hall, J. C. (2006). Positive externalities and government involvement in education. *Journal of private enterprise*, 21(2), 165–175.

Hammill, M. (2007). *Growth, poverty and inequality in Central America*. Mexico: CEPAL. Retrieved from http://biblioteca.ues.edu.sv/revistas/10701306.pdf.

Hauser, M. (2014). *Vector error correction model*, VECM Cointegrated VAR – Chapter 4. Retrieved from statmath.wu.ac.at/~hauser/LVs/FinEtricsQF/FEtrics_Chp4.pdf.

Hayek, F. A. (1988). *The fatal conceit*. Chicago, Illinois: University of Chicago Press.

Hoxha, A. (2010). Causality between prices and wages: VECM analysis for EU-27. *Romanian Economic Journal*, 13(37), 3–37.

Hume, D. (1886). A treatise of Human Nature. In T. H. Green & T. H. Gross (Eds.), *Philosophical Work*, Vol. I - II. London, England: Longmans Green.

Instituto Hondureno de Turismo [IHT]. (2013). *Republic of Honduras: Tourism Statistic Bulleting 2004–2008*. Retrieved from: http://www.iht.hn/?q=node/41.

Jenkins, C. L., & Henry, B. M. (1982). Government involvement in tourism in developing countries. *Annals of tourism research*, 9(4), 499–520.

Johansen, S. (1988). Statistical analysis of cointegration vectors. *Journal of Economic Dynamics and Control*, 12(2–3), 231–254. DOI: 10.1016/0165–1889(88)90041–3.

Johansen, S. (1991). Estimation and hypothesis testing of cointegration vectors in Gaussian vector autoregressive models. *Econometrica*, 59(6), 1551–1580. DOI: 10.2307/2938278.

Karnani, A. (2011). "Doing well by doing good". The Grand Illusion. *California Management Review*, 53(2), 69–86. DOI: 10.1525/cmr.2011.53.2.69.

Knopf, A. A. (1999). *Review of Development as Freedom*. Retrieved from http://myweb.dal.ca/osberg/classification/book%20reviews/Review%20of%20Development%20as%20Freedom/review%20of%20development%20as%20freedom.pdf.

Kunst, R. (2011). *Summary based on Chapter 12 on Baltagi: Panel Unit Root Test*. Retrieved from http://homepage.univie.ac.at/robert.kunst/pan2011_pres_nell.pdf.

Lenin, V. I. (1916). *Imperialism: The Highest Stage of Capitalism*. New York: International Publishers.

Levin, A., Lin, C., & Chu, C. J. (2002). Unit root tests in panel data: Asymptotic and finite-sample properties. *Journal of Economics*, 108(1), 1–24. DOI: 10.1016/S0304–4076(01)00098–7.

Marx, K., & Engels, F. (1848). *Manifesto of the Communist Party and its genesis*. Pacifica, CA: Marxist Internet Archive.

Michael, E. (2001). Public choice and tourism analysis. *Current issues in tourism*, 4(2), 308–330. DOI: 10.1080/13683500108667891.

Navarro, V. (2000). Development and Quality of Life: A critique of Amartya Sen's Development as Freedom. *International Journal of Health Services*, 30(4), 661–674. DOI: 10.2190/10XK-UYUC-E9P1-CLFX.

Nelson, M. A., & Singh, R. D. (1998). Democracy, Economic Freedom, Fiscal Policy, and Growth in LDCs: A Fresh Look. *Economic Development and Cultural Change*, 46(4), 677–696. DOI: 10.1086/452369.

Pattanaik, P. K., & Xu, Y. (1990). On ranking opportunity sets in terms of freedom of choice. *Louvain Economic Review*, 56(3–4), 383–390.

Real Instituto Elcano [RIE]. (2010). Real Instituto Elcano. Retrieved from http://www.realinstitutoelcano.org.

Ritchie, J. R. B., & Crouch, G. I. (2003). *The Competitive Destination, a Sustainable Tourism Perspective*. Wallingford, UK: CABI.

Roberts, J. (Ed.). (2014). *2014 Global Agenda for Economic Freedom*. Special Report No. 153. Washington, DC: The Heritage Fundation. Retrieved from http://www.heritage.org/international-economies/report/2014-global-agenda-economic-freedom.

SAS. (2014). *Panel Data Unit Root Test*. Retrieved from http://support.sas.com/documentation/cdl/en/etsug/65545/HTML/default/viewer.htm#etsug_panel_details39.htm.

Sasidharan, V., Sirakaya, E., & Kerstetter, D. (2002). Developing countries and tourism ecolabels. *Tourism Management*, 23(2), 161–174.

Scully, G. W. (2002). Economic freedom, government policy and the trade-off between equity and economic growth. *Public Choice*, 113(1–2), 77–96. DOI: 10.1023/A:1020308831424.

Scully, G. W., & Slottje, D. J. (1991). Ranking economic liberty across countries. *Public Choice*, 69(2), 121–152. DOI: 10.1007/BF00123844.

Sen, A. (1987). Freedom of Choice: Concept and content. *Proceedings from Alfred Marshall Lecture at the annual meetings of the European Economic Association*. Copenhagen, Denmark.

Sen, A. (1999). *Development as freedom*. New York, NY: Anchor Books.

Shiu, A., & Lam, P. T. (2008). Causal relationship between telecommunications and economic growth in China and its regions. *Regional Studies*, 45(5), 705–718. DOI: 10.1080/00343400701543314.

Sobel, R. S., & Leeson P. T. (2006). Government's response to Hurricane Katrina: A public choice analysis. *Public Choice*, 127(12), 55–73. DOI: 10.1007/s11127–006–7730–3.

Song, H., Witt, S. F., & Li, G. (2009). *The Advanced econometrics of tourism demand*. New York, NY: Routledge.

Stiglitz, J. E. (2012). *The price of inequality: How today's divided society endangers our future*. New York, NY: W. W. Norton.

Stroup, M. D. (2007). Economic freedom, democracy and the quality of life: an empirical analysis. *World Development*, 35(1), 52–66. DOI: 10.1016/j.worlddev.2006.09.003.

Tang, C. F. (2011). Tourism, real output and real effective exchange rate in Malaysia: a view from rolling sub-samples. *MPRA – Munich Personal RePEc Archive*, MPRA Paper No. 29379. Retrieved from http://mpra.ub.uni-muenchen.de/29379/.

Tang, C., & Jang, S. (2009). The tourism-economy causality in the United States: A sub-industry level examination. *Tourism Management*, 30(4), 553–558.

Transparency International [Transparency]. (2014). Corruption Perception Index 2007: Frequently asked questions. Retrieved from http://cpi.transparency.org/.

Trotsky, L., Hansen, J., Novack, G. E., Burnham, J., & Eastman, M. (1973). *In Defense of Marxism*. Atlanta, GA: Pathfinder Press.

UNWTO. (2010). *Tourism 2020 Vision*. Retrieved from http://www.unwto.org.

UNWTO. (2013). *Asia and the pacific and the Americas the most "open" regions for travellers in terms of Visas*. Press Release No. PR13005. Madrid, Spain: World Tourism Organization. Retrieved from http://media.unwto.org/press-release/2013–01–28/asia-and-pacific-and-americas-most-open-regions-travellers-terms-visas.

Verbeek, M. (1997). *A guide to modern econometrics*. New York: John Wiley & Sons.

Wint, A. G. (1998). The role of government in enhancing the competitiveness of developing economies: Selective functional intervention in the Caribbean. *International Journal of Public Sector Management*, 11(4), 281–299. DOI: 10.1108/09513559810225834.

Wolf Jr., C. (1988). *Markets or Government: Choosing between Imperfect Alternatives*. Cambridge, MA: MIT Press.

Wolf, P. J. (1997). Why must we reinvent the federal government? Putting historical developmental claims to the test. *Journal of Public Administration Research and Theory*, 7(3), 353–388. DOI: 10.1093/oxfordjournals.jpart.a024354.

World Bank. (2012). *World Development Report 2011: Conflict, security and development*. DOI: 10.1080/02255189.2011.622569.

World Economic Forum [WEF]. (2012). *The Global Competitiveness Report 2012–2013*. Geneva, Switzerland: Author. Retrieved from http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2012–13.pdf.

Zerbe Jr., R. O., & McCurdy, H. E. (1999). The Failure of Market Failure. *Journal of Policy Analysis and Management*, 18(4), 558–578.

Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2010). *Business research methods*. Mason, OH: South-Western CENGAGE Learning.