

Roles of Institutional Quality on the Relationship between Tourism and Economic Development in Malaysia

Hui Shan LEE*, Sin Yee LEE and Wai Mun HAR

Abstract--- *This research intends to examine the roles of institutional quality on tourism-led growth and growth-led tourism hypothesis in Malaysia in both short run and long run analysis. This study uses yearly data from 1996 to 2015 to verify whether institutional quality significantly affects the relationship between tourism and economic growth in Malaysia. It provides a comprehensive dataset by investigating all the institutional quality dimensions including control of corruption, government effectiveness, regulatory quality, rule of law, voice and accountability, political stability and absence of violence in addition to the aggregate value and average value of these dimensions. The findings provide empirical supports that institutional quality such as control of corruption and government effectiveness do play important roles in the tourism and economic growth in Malaysia. In this essence, any policy planning that enhances the corruption and government effectiveness of Malaysia could promote the tourism development and economic growth in Malaysia.*

Keywords--- *Institutional Quality, Tourism, Economic Growth, Tourism-led Growth, Growth-led Tourism.*

I. INTRODUCTION

At this new era, tourism has become one of the rapidly growing services sectors of the world. This has prompted the Malaysian government to set tourism as a key sector for invigorating Malaysia's long-term economic growth. Specifically, the 11th Malaysia Plan (2015-2020) has identified the tourism sector as one of the National Key Economic Areas (NKEAs) for transforming Malaysia into a high income nation by 2020. In 1995, only 600 thousand foreign workers in Malaysia were illegal (Tang and Tan, 2015). The number subsequently increased to 2.1 million as observed during the implementation of the Illegal Immigrant Comprehensive Settlement Programme. In view of these counterfactual data, doubts have arisen regarding the appropriateness of emphasising on tourism as a key sector for driving long-term economic growth in order to attain the high income status by 2020. As not all tourist arrivals involve genuine tourists, higher rates of arrivals do not necessarily mean higher rates of tourism earnings. In fact, UNWTO (2012) noted that Malaysia's ranking in terms of tourism earnings was much lower than the ranking by tourist arrivals. In view of these reservations, there is an urgent need for a more accurate empirical assessment of the actual impact of tourism on Malaysia's economic growth. Furthermore, the important question is, how Malaysian policy makers address the institution-related issues to attract a more consistent tourism arrival to Malaysia? By looking at the institutional trend in Malaysia from 1996, Malaysia achieved a higher institutional

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quality index in year 2005 at an average value of 0.4741 but started to decrease to 0.3844 in 2015 which was much lower than the value in 1996 at 0.4360. Therefore, the objective of this article is to investigate the roles of institutional quality on the relationship between tourism and economic development in Malaysia.

The tourism–growth hypothesis has been long debated in the literature. Although there are many studies of the relationship between tourism and economic growth from a range of perspective, the direction of its causality remains an unsolved conundrum. Scholars suggested that economic growth induces tourism development, because the high growth countries have many business and working opportunities, while others studies took the view that tourism Granger-causes economic growth from the gain in foreign exchange and the creation of employment to the host countries. From the existing researches, several studies have been conducted to analyse the role of tourism in economic growth. Generally, the causal relationship between tourism and economic growth in Malaysia remains a controversial subject. Interestingly, at this juncture, only Ruhanen and McLennan (2010), Balli et al. (2016) and Luo et al. (2016) that examine the issues of institutional quality in the theory of tourism and economic growth theory. Hence, this study aims to investigate the stability of the tourism–growth nexus with the roles of institutional quality for Malaysia.

The Malaysian economy has undergone various phases of change from the primary sector to the manufacturing and services sectors. Coupled with some prudent policies and practical development planning, the economy has been growing steadily. However, the global crisis in the 1980s has awakened the government of the importance of the tourism industry in creating employment opportunity and stimulating economic growth. The Malaysian Tourism Promotion Board was established to promote the tourism industry and stimulate the numbers of international visitor arrivals to Malaysia (Lean and Tang, 2010). Malaysia is proud and honoured to be nominated once again in the prestigious World Travel Awards Asia & Australasia 2017. Since 2015, both Malaysia and Tourism Malaysia have won ‘Asia’s Leading Destination’ and ‘Asia’s Leading Tourist Board’ awards respectively for three consecutive years. This remarkable record has sparked the interest of researchers to investigate the tourism industry in Malaysia. Motivated by the aforementioned shortcomings, the goal of this paper is to investigate the impact of tourism expansion on Malaysia’s economic growth in a bilateral framework with the roles of institutional quality. Unlike the earlier studies, we contribute to the literature by analysing the role of tourism in Malaysia’s economic growth based upon institutional quality. Various econometric approaches are employed in this study.

II. LITERATURE REVIEW

The growth in international tourism has taken place around various activities over the years: leisure, business, medical, cultural, adventure, wellness, sports, religious, wildlife and ecotourism. The United Nations has reported that this growth has achieved the US \$1 trillion mark, thus leading tourism become an engine of development for many small economies and a viable sector for developed economies. The literature has, without a doubt, captured the different facets of the growing importance of the tourism industry. Past literature on the impact of tourism on growth generally find a positive association between tourism and the economic growth rate.

For the validation of tourism-led growth hypothesis, it has been confirmed by the studies (Bouzahzah and El Menyari, 2013; Tang and Tan, 2015; Chiu and Yeh, 2017). In the study by Bouzahzah and El Menyari (2013), they

only find tourism-led growth hypothesis is valid in the short run, but only unidirectional for growth-led tourism in the long run. Tang and Tan (2015) validate that tourism-led growth hypothesis exist in Malaysia both short run and long run. Kadir et al. (2012) also find that tourism-led growth hypothesis in ASEAN-5 countries with public intervention is needed to provide a better tourism facility to enhance the economic growth. A new finding by Chiu and Yeh (2017) propose that different conditions of tourism development such as will lead to various consequences on the tourism–growth nexus.

Apart from that tourism-led growth hypothesis, Cheam et al. (2013) find significant growth-led tourism hypothesis in Malaysia. The interesting finding from this research is that they focus on the triangular casual relation in between tourism and economic growth with other macroeconomics variables such as education, physical capital, government tourism expenditure and exports. Additionally, Arezki et al. (2009) find that there is positive link between the extent of tourism specialization and economic growth in cross sectional countries analysis from 1980 to 2002. Their research claim that limited data in institutional quality could lead to significant measurements errors to even more bias. Recommendation from Peterson et al. (2014) apart from infrastructural, and innovation capabilities, institutional quality is also important to achieve encompassing and sustainable progress in tourism and economic growth. Furthermore, Cao (2015) suggests that a more effective institutional arrangement and government's responsibilities are needed to plan for a sustainable tourism development. Institutional perspective has emerged in the early 2000s, but still remains relatively conceptually underdeveloped within the tourism field. Majority of the studies limit their analysis by only linking the quantitative macroeconomics variables in estimating the tourism-growth relationship, we take our analysis one step further by investigating the role of qualitative macroeconomic perspective namely quality of institutions to investigate the relationship in between tourism and economic growth. Unlike the earlier studies, we contribute to the literature by analysing the role of tourism in Malaysia's economic growth based upon the characteristics of institutional quality. Various econometric approaches are employed in this study.

The rest of this paper is organised as follows. The next section will explain the data and methodology. Section 3 will discuss the econometric procedures followed. The empirical findings will then be presented in Section 4 followed by conclusion in Section 5.

III. METHODOLOGY

This study employs annual time series data from 1996 to 2015 extracted from The World Bank (economic growth and tourism indicators). The institutional quality data is obtained from Worldwide Governance Indicators. The economic growth is determined by Gross Domestic Product (GDP) and number of tourists' arrival (TA) is the proxy for tourism variable. The institutional quality variables consist of a comprehensive dataset by investigating all the institutional quality dimensions including control of corruption (CC), government effectiveness (GE), regulatory quality (RQ), rule of law (RL), voice and accountability (VA), political stability and absence of violence (PS) in addition to the aggregate value of institutional quality (AggIQ) and average value of institutional quality (AveIQ). GDP and TA are transformed into natural logarithm to induce immobility in the variance-covariance matrix.

First, we apply the standard augmented Dickey-Fuller (ADF) unit root test and Philip-Perron (PP) unit root test

to determine the stationery characteristics of all the variables. Then, we proceed to use Johansen Juselius test to examine is there any cointegration among the variables (Johansen and Juselius, 2009). This is to determine the presence of long-run equilibrium relationships amongst economic growth, tourism and institutional variables with the advantage of this method is not sensitive to the choice of the dependent variable because it treats all variables as endogenous. If a set of variables are cointegrated, one should use the Vector Error Correction Model (VECM) because it takes into account the short-run and long run elements. The VECM model in this study can be written as:

$$\Delta GDP_{1t} = \mu_{1t} - \phi_1(GDP - \gamma_0 - \gamma_1 TA - \gamma_2 IQ)_{t-1} + \sum_{i=1}^j \beta_{1,j} \Delta GDP_{1t-1} + \sum_{i=1}^j \beta_{2,j} \Delta TA_{1t-1} + \sum_{i=1}^j \beta_{3,j} \Delta IQ_{1t-1} + \varepsilon_{1t}$$

$$\Delta TA_{2t} = \mu_{2t} - \phi_2(GDP - \gamma_0 - \gamma_1 TA - \gamma_2 IQ)_{t-1} + \sum_{i=1}^j \beta_{1,j} \Delta GDP_{2t-1} + \sum_{i=1}^j \beta_{2,j} \Delta TA_{2t-1} + \sum_{i=1}^j \beta_{3,j} \Delta IQ_{2t-1} + \varepsilon_{2t}$$

$$\Delta IQ_{3t} = \mu_{3t} - \phi_3(GDP - \gamma_0 - \gamma_1 TA - \gamma_2 IQ)_{t-1} + \sum_{i=1}^j \beta_{1,j} \Delta GDP_{3t-1} + \sum_{i=1}^j \beta_{2,j} \Delta TA_{3t-1} + \sum_{i=1}^j \beta_{3,j} \Delta IQ_{3t-1} + \varepsilon_{3t}$$

Where lagged dependent variables added into the equations to remove serial correlation and to ensure that the disturbances terms are white noise. *j* is the optimal lag length determined by the Akaike's Information Criterion (AIC). Nevertheless, in the absence of cointegration, one can only discover the short-run causal relationship using the first difference VAR model (Granger, 1988). Lastly, the causal relationship between tourism and economic growth in Malaysia will be ascertained by the Granger causality test to investigate the variables constitute unidirectional or bidirectional relationship. This allows us to assess both long-run and short-run causality, respectively, on the χ^2 -test of the lagged first differenced terms for each right-hand-side variable and the t-test of the error correction term.

IV. RESULTS AND FINDINGS

Table 1: Test for Unit Root

	<i>ADF Unit Root</i>	<i>Philip-Perron Unit Root</i>	<i>ADF Unit Root</i>	<i>Philip-Perron Unit Root</i>
	Constant Without Trend		Constant With Trend	
	Level		1 st Difference	
<i>lnGDP</i>	-0.395800	-0.424737	-3.682459**	-3.633142**
<i>lnTA</i>	-3.291638**	-1.162021	-4.406163***	-4.537979***
<i>CC</i>	-1.676164	-1.736840	-3.104560**	-3.553353**
<i>GE</i>	-1.440448	-4.626090***	-3.605434**	-3.648954**
<i>RQ</i>	-2.321654	-2.321654	-4.658225***	-4.813245***
<i>RL</i>	-2.044815	-2.296039	-3.875050***	-3.866856***
<i>VA</i>	-3.360832**	-3.135401**	-4.095500***	-5.633263***
<i>PS</i>	-2.568126	-2.663822*	-3.885472***	-3.934728***
<i>AggIQ</i>	-2.259321	-2.369351	-3.936403***	-3.936403***
<i>AveIQ</i>	-2.259321	-2.369351	-3.936403***	-3.936403***

Note: The values represent the t-statistics. *, **, *** denote significant at 10%, 5%, 1% respectively.

Table 1 presents the unit root test of all the variables, at the constant with trend model, both ADF and PP tests show that all variables are stationery at I(1). Moving to the Johansen Juselius test, only control of corruption (CC)

and government effectiveness (GE) indicate existence of cointegration with the tourism and growth variables, thus the results are shown in Table 2.1 and 2.2. To conserve space, other institutional variables such as RQ, RL, VA, PS, AggIQ and AveIQ which do not provide significant cointegration relationship are not reported.

Table 2.1: Result of Multivariate Cointegration Test (Institutional variable: Control of Corruption)

<i>Hypothesis Ho:</i> <i>rank=r</i>	<i>Maximum Eigenvalue</i>		<i>Trace</i>	
	<i>Test Statistic</i>	<i>95%</i>	<i>Test Statistic</i>	<i>95%</i>
r=0	21.40214**	21.13162	27.42715	29.79707
r=1	3.573887	14.26460	6.025017	15.49471
r=2	2.451131	3.841466	2.451131	3.841466

Table 2.2: Result of Multivariate Cointegration Test (Institutional Variable: Government Effectiveness)

<i>Hypothesis Ho:</i> <i>rank=r</i>	<i>Maximum Eigenvalue</i>		<i>Trace</i>	
	<i>Test Statistic</i>	<i>95%</i>	<i>Test Statistic</i>	<i>95%</i>
r=0	21.20651**	21.13162	37.78288**	29.79707
r=1	15.59802**	14.26460	18.57637**	15.49471
r=2	2.978351	3.841466	2.978351	3.841466

Since CC and GE show cointegration relationship, the cointegrating eigenvectors for the long run relationship with tourism and economic growth are reported in Table 3.1 and Table 3.2 respectively. From Table 3.1, tourism does postulate significant impact to economic growth in the long run. Economic growth also demonstrates positive effect to tourism in the long run.

CC illustrates a positive relationship to tourism but indicates a negative relationship to economic growth. This can be explained by when impacts of economic growth are explained by tourism and CC only, there might be other variables which explain the growth that interacted by CC is not being examined, CC shows a negative relationship.

Whereas, when economic growth and CC are the explanatory variables for tourism, both are showing positive results indicate that better economic growth and better CC will enhance tourism. In this essence, a better economic growth implies that the infrastructure is better and control on corruption is effective thus attracting more tourists to visit Malaysia.

Table 3.1: Cointegrating Eigenvectors (Institutional Variable: Control of Corruption)

lnGDP -1.00	lnTA 0.806*** (6.590)	CC -0.8033** (-2.051)
lnTA -1.00	lnGDP 1.241*** (7.697)	CC 0.997** (2.327)
CC -1.00	lnTA 1.002*** (3.877)	lnGDP -1.244*** (-3.990)

Similar to CC, GE also presents a negative relationship to economic growth but a positive connection with tourism. Therefore, it is concluded that better institutional quality such as control of corruption and government effectiveness could enhance the tourism growth in Malaysia.

Table 3.2: Cointegrating Eigenvectors (Institutional Variable: Government Effectiveness)

lnGDP	lnTA	GE
-1.00	1.005*** (4.580)	-4.159*** (-5.782)
lnTA	lnGDP	GE
-1.00	0.995*** (4.719)	4.140*** (6.613)
GE	lnTA	lnGDP
-1.00	0.242** (2.363)	-0.24** (-2.129)

To examine the granger causality of tourism, economic growth and institutional quality, the results are report in Table 4.1 to Table 4.8. Since CC and GE postulate cointegrating relationship with tourism and economic growth, the ECT terms are illustrated in Table 4.1 and Table 4.2 respectively. The negative and significant ECT in Table 4.1 suggests that the dynamic movement of economic growth will converge in the long run. In the short run, CC will enhance economic growth but no influence to the tourism. This suggest that lesser corruption issues in the short run will enhance economic growth in the short run.

Table 4.1: Granger Causality Results based on VECM (Institutional Variable: Control of Corruption)

<i>Dependent Variable</i>	<i>Independent Variables</i>			<i>ECT_{t-1} coefficient (t-ratio)</i>
	<i>χ² -statistics of lagged 1st differenced term [p-value]</i>			
	<i>ΔlnGDP</i>	<i>ΔlnTA</i>	<i>ΔCC</i>	
ΔlnGDP	--	0.647266 [0.4211]	4.716913** [0.0299]	-0.4533*** (-3.8370)
ΔlnTA	0.556770 [0.4556]	--	0.075278 [0.7838]	-0.0172 (-0.296)
ΔCC	0.141386 [0.7069]	3.030391* [0.0817]	--	-0.113 (-1.076)

Note: *** and ** denotes significant at 1% and 5% significance level, respectively. The figure in the parenthesis (...) denote as t-statistic and the figure in the squared brackets [...] represent as p-value.

Table 4.2 illustrates that in the dynamic changes in tourism and government effectiveness in the short run will converge in the long run due to their ECT are negative signs and significant. In the short run, tourism does end government effectiveness have no impact towards economic growth. However, economic growth does postulates positive impact towards tourism in the short run. This scenario could be due to higher government spending to improve the facilities in Malaysia could encourage more tourists to visit Malaysia.

Table 4.2: Granger Causality Results based on VECM (Institutional variable: Government Effectiveness)

<i>Dependent Variable</i>	<i>Independent Variables</i>			<i>ECT_{t-1} coefficient (t-ratio)</i>
	<i>χ² -statistics of lagged 1st differenced term [p-value]</i>			
	<i>ΔlnGDP</i>	<i>ΔlnTA</i>	<i>ΔGE</i>	
ΔlnGDP	--	2.613412 [0.1060]	0.272189 [0.6019]	0.174 (1.977)
ΔlnTA	3.331547* [0.0680]	--	2.242519 [0.1343]	-1.557** (1.627)
ΔGE	0.204626 [0.6510]	0.138545 [0.7097]	--	-0.648*** (-2.569)

Note: *** and ** denotes significant at 1% and 5% significance level, respectively. The figure in the parenthesis (...) denote as t-statistic and the figure in the squared brackets [...] represent as p-value

Among the other institutional variables such as RQ, RL, VA, AggIQ and AveIG, all of these variables do not postulate relationship with tourism and economic in both long run and short run. However, political stability does enhance tourism in the short run. This implies that Malaysia could attract more tourists if the political environment in Malaysia is stable.

From Table 4.3 to 4.8, the results proven that tourism does improve the economic growth in the short run. This is because the spending by the tourists could boost the output in Malaysia. In Table 4.6, a better political stability will enhance both tourism and economic growth.

Table 4.3: Granger Causality Results based on VECM (Institutional variable: Regulator Quality)

	<i>Independent Variables</i>		
<i>Dependent</i>	χ^2 -statistics of lagged 1 st differenced term [p-value]		
<i>Variable</i>	$\Delta \ln GDP$	$\Delta \ln TA$	ΔGE
$\Delta \ln GDP$	--	4.318458** [0.0377]	1.805528 [0.1790]
$\Delta \ln TA$	1.284248 [0.2571]	--	0.079685 [0.7777]
ΔRQ	0.126601 [0.7220]	0.009790 [0.9212]	--

Note: *** and ** denotes significant at 1% and 5% significance level, respectively. The figure in the parenthesis (...) denote as t-statistic and the figure in the squared brackets [...] represent as p-value

Table 4.4: Granger Causality Results based on VECM (Institutional variable: Rule of Law)

	<i>Independent Variables</i>		
<i>Dependent</i>	χ^2 -statistics of lagged 1 st differenced term [p-value]		
<i>Variable</i>	$\Delta \ln GDP$	$\Delta \ln TA$	ΔRL
$\Delta \ln GDP$	--	5.334201** [0.0209]	0.611726 [0.4341]
$\Delta \ln TA$	0.589312 [0.4427]	--	2.102049 [0.1471]
ΔRL	0.170929 [0.6793]	0.527344 [0.4677]	--

Note: *** and ** denotes significant at 1% and 5% significance level, respectively. The figure in the parenthesis (...) denote as t-statistic and the figure in the squared brackets [...] represent as p-value

Table 4.5: Granger Causality Results based on VECM (Institutional Variable: Voice and Accountability)

	<i>Independent Variables</i>		
<i>Dependent</i>	χ^2 -statistics of lagged 1 st differenced term [p-value]		
<i>Variable</i>	$\Delta \ln GDP$	$\Delta \ln TA$	ΔVA
$\Delta \ln GDP$	--	3.831068** [0.0503]	0.465908 [0.4949]
$\Delta \ln TA$	1.208866 [0.2716]	--	0.855037 [0.3551]
ΔVA	0.289298 [0.5907]	0.644012 [0.4223]	--

Note: *** and ** denotes significant at 1% and 5% significance level, respectively. The figure in the parenthesis (...) denote as t-statistic and the figure in the squared brackets [...] represent as p-value

Table 4.6: Granger Causality Results based on VECM (Institutional variable: Political Stability)

	<i>Independent Variables</i>		
<i>Dependent</i>	χ^2 -statistics of lagged 1 st differenced term [p-value]		
<i>Variable</i>	$\Delta \ln GDP$	$\Delta \ln TA$	ΔPS
$\Delta \ln GDP$	--	5.972970** [0.0145]	1.053734 [0.3046]
$\Delta \ln TA$	3.792975* [0.0515]	--	4.054670** [0.0440]
ΔPS	8.157524*** [0.0043]	8.531746*** [0.0035]	--

Note: *** and ** denotes significant at 1% and 5% significance level, respectively. The figure in the parenthesis (...) denote as t-statistic and the figure in the squared brackets [...] represent as p-value

Table 4.7: Granger Causality Results based on VECM (Institutional variable: Aggregate Institutional Quality)

	<i>Independent Variables</i>		
<i>Dependent</i>	χ^2 -statistics of lagged 1 st differenced term [p-value]		
<i>Variable</i>	$\Delta \ln GDP$	$\Delta \ln TA$	$\Delta AggIQ$
$\Delta \ln GDP$	--	5.450132** [0.0196]	0.672155 [0.4123]
$\Delta \ln TA$	1.810409 [0.1785]	--	0.558975 [0.4547]
$\Delta AggIQ$	1.489952 [0.2222]	2.101577 [0.1471]	--

Note: *** and ** denotes significant at 1% and 5% significance level, respectively. The figure in the parenthesis (...) denote as t-statistic and the figure in the squared brackets [...] represent as p-value

Table 4.8: Granger Causality Results based on VECM (Institutional variable: Average Institutional Quality)

	<i>Independent Variables</i>		
<i>Dependent</i>	χ^2 -statistics of lagged 1 st differenced term [p-value]		
<i>Variable</i>	$\Delta \ln GDP$	$\Delta \ln TA$	$\Delta AveIQ$
$\Delta \ln GDP$	--	5.450132** [0.0196]	0.672155 [0.4123]
$\Delta \ln TA$	1.810409 [0.1785]	--	0.558975 [0.4547]
$\Delta AveIQ$	1.489952 [0.2222]	2.101577 [0.1471]	--

Note: *** and ** denotes significant at 1% and 5% significance level, respectively. The figure in the parenthesis (...) denote as t-statistic and the figure in the squared brackets [...] represent as p-value

V. CONCLUSION

This study shows that tourism does augment economic growth in Malaysia both in long run and short run. Furthermore, control of corruption and government effectiveness are very important to support tourism and economic growth in the long run. If the political stability is disrupted, it will reduce the tourist into Malaysia as the tourists are concern with the safety issue. The message underlying this finding is that governments in Malaysia must do more to combat corruption, and to maintain the government effectiveness in addition to sustain a good political stability environment. This is to take place in conjunction with investing in projects that improve the attractiveness

of Malaysia to the outside world at the same time improving institutional quality. This paper shows that tourists have a higher propensity to visit a county with higher standards of institutional quality.

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