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DOES EDUCATIONAL TOURISM SIGNIFICANTLY INFLUENCE ECONOMIC GROWTH? EVIDENCE FROM A MACRO-ECONOMETRIC MODELLING

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ABSTRACT

This study augmented the IS-LM macroeconomics model to investigate the relevance of educational tourism to economic growth in Malaysia. We utilise the vector autoregressive model with exogenous variables to examine the dynamic impact of educational tourism, interest rate, and money on economic growth over the period from 1996:Q1 to 2015:Q4. The results indicate that both money supply and educational tourism have a positive effect on economic growth, while the effect of real interest rate on economic growth is negative. The impulse response and variance decomposition also suggest that educational tourism is relevant and has a positive long-term influence on economic growth.

Keywords: Economic growth; Educational tourism; IS-LM; Malaysia; VARX

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1. INTRODUCTION

Sustainable economic growth is one of the primary goals of many policymakers, as it has a direct implication for improving standard of livings and prosperity of a country (Tobin, 1964). Retrospectively, the locomotive of growth has evolved gradually from agricultural and manufacturing sectors to service sector, including tourism, education, health, and finance. Today, tourism is one of the rapidly growing contributors to the service sector, especially after the advent of low-cost air carriers over the last two decades. The global pattern of tourism changed rapidly and the number of international tourists increased drastically from approximately 70 million visitors in 1960 to approximately 1.4 billion visitors in 2018. Furthermore, the United Nations World Tourism Organization (UNWTO, 2011) projected that international tourists would reach 1.8 billion visitors by 2030. In the light of this phenomenon, tourism is considered to be an alternative means to generate economic growth. To date, a large number of studies (e.g. Al-mulali et al., 2014; Bassil et al., 2015; Brida et al., 2015; Cárdenas-García et al., 2015; De Vita and Kyaw,

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2016; De Vita and Kyaw, 2017; Dogru and Bulut, 2018; Tang et al., 2017) have been conducted to validate the possibility of accelerating economic growth through the conduit of tourism in different countries, particularly in developing countries aiming to escape from the middle-income trap and converge steadily towards high-income nations.[1] However, past studies do not present conclusive evidence in favour of the tourism-led growth (TLG) hypothesis. For example, Brau et al. (2011), Al-mulali et al. (2014), Bassil et al. (2015), Brida et al. (2015), Cárdenas-García et al. (2015), Dogru and Bulut (2018), and Tang and Tan (2018) found that the TLG hypothesis is valid. On the contrary, some studies (for instance, Lanza et al. (2003) on 13 OECD countries, Oh (2005) on South Korea, Algieri (2006) on 25 small countries, Katircioglu (2009) on Cyprus declined the TLG hypothesis.

In view of the theories of economic growth, we have learned that neoclassical and the new growth theories have both outlined the importance of skills and human capital development in propelling long-term economic growth. With respect to this, education has become the backbone of economic prosperity, as it is one of the means to sharpen skills and develop human capital. In the modern era of globalisation, education is no longer purely national but rather has transformed to cross-border education, especially at the tertiary level. Moreover, the internationalisation of higher education has also enhanced global mobility and enabled students to receive high quality education from various education institutions around the world. Thus, travelling to other countries for education purposes, also known as educational tourism, has become an important sub-sector in tourism. Owing to the increasing influence of internationalisation of higher education, the number of international students around the world has increased rapidly over the past few decades; a nearly 200 per cent increase between 1995 and 2014, from 1.7 million to approximately 5 million, respectively. Precisely, Asia is the catalyst of growth in global student mobility, and Malaysia is one of the most attractive destinations for higher education in the world, placing it at ninth in 2015. Therefore, educational tourism may be a new locomotive that propels the Malaysian economy to the next level (Arif, 2007). Reviewing past literature, we have found that scientific research on the effect of educational tourism on economic growth is scarce, particularly research using time series data. To date, there are some studies utilising time series data, but only two focuses on Malaysia. Katircioğlu (2010) and Katircioğlu et al. (2014) examined the effects of total tourism and educational tourism on economic growth in North Cyprus and consistently found that educational tourism influenced merely the long-run economic growth in North Cyprus.[2] Nevertheless, in Malaysia, Matahir and Tang (2017a, 2017b) used international students as a proxy for educational tourism, and discovered that educational tourism explained both the short- and long-run economic growth. In addition, we have found that the analysis of previous studies is mainly based on a single-equation framework. It is crucial to elucidate here that the estimation results with a single-equation framework may be biased, especially when the explanatory variables are not weakly exogenous. This limitation has been well documented in many econometric literatures, for example, Banerjee et al. (1998) and Engle and Granger (1987). Therefore, it is essential to further investigate this topic by using a system-based and theoretically sound framework in an effort to yield more reliable estimation results.

[1] Owing to limited space, we are unable to cite all the relevant research in the present study. Therefore, interested readers may refer to Pablo-Romero and Molina (2013) and Brida et al. (2016) for a summary of studies pertaining to the TLG hypothesis.
[2] Strictly speaking, these two studies did not actually examine the impact of educational tourism on economic growth because they used total students instead of international students.

With regard to these shortcomings, we move forward to rigorously examine the effect of educational tourism and other related macroeconomic variables on Malaysia's economic growth using an empirically-relevant macroeconomic model augmented from the IS-LM macro-econometric framework. This is because the IS-LM model is a core and practical macroeconomic model, especially for policy analysis (Blanchard, 1997). Recently, Tang and Tan (2018) used this model to study the impact of tourism on economic growth in a global context. Therefore, this study not only helps to improve understanding of the transmission mechanism of educational tourism on economic growth, but the findings of this study would also help to improve macroeconomic policymaking. To the best of our knowledge, study that analyses the tourism-growth nexus using macroeconomic modelling is still absent, especially in Malaysia. Since the specification of the macroeconomic model is mainly based on economic theories, this type of model is theoretically sound, and the estimated relationships are likely to offer a better interpretation. Moreover, we also believe that this is the first attempt in the literature to augment the IS-LM macro-econometric model to analyse the impact of tourism on economic growth, making this is a major contribution to the current body of knowledge, at least from the modelling and policymaking perspectives.

The balance of this paper is organised as follows. The specification of model, data, and methodology used in this study will be presented in the next section. Section 3 will present and discuss the estimation results. The concluding remarks and its implications on policy will be discussed in Section 4.

2. METHODOLOGY AND DATA

2.1. Macro-Econometric Framework and Estimation Strategy

The central idea of this paper is to assess the impact of educational tourism on output growth in Malaysia. In the light of this, we augment the IS-LM macro-econometrics framework with export of education (i.e. educational tourism) and the augmented models can be written below:

$$y_t = -b_1 r_t + b_2 ex_t^{edu} + \mu_{IS,t} \quad \text{(IS model)} \quad (1)$$

$$r_t = b_3 y_t - b_4 m_t + \mu_{LM,t} \quad \text{(LM model)} \quad (2)$$

$$m_t = \mu_{MS,t} \quad \text{(Money supply)} \quad (3)$$

$$ex_t^{edu} = \mu_{ex,t} \quad \text{(Export of education)} \quad (4)$$

where y is the real GDP, r is the real interest rate, ex^{edu} is the educational tourism, and m is the real money balance. Based on the IS-LM theoretical assumptions, the above macro-econometric model consists of both endogenous (y, r) and exogenous (m, ex^{edu}) variables. However, the conventional vector autoregressive (VAR) approach assumes that all variables in the system are endogenous in nature. Therefore, the conventional VAR estimation approach is not suitable for the present study. In order to deal with this issue, we employ the advanced approach of vector error-correcting autoregressive modelling with exogenous variables (VARX) augmented by Pesaran et al. (2000) to examine the dynamic impact of educational tourism, interest rate, and money on economic growth in Malaysia. A major advantage of this approach is that the VARX models allow exogenous variables and their dynamics to appear as control variables in the system. In addition, it allows one to assess the response of endogenous variables to a shock in exogenous variables via the impulse response function and the forecast error variance decomposition. If the endogenous

variables are found to be cointegrated, the following augmented vector error-correction model with *I*(1) exogenous variables (VECMX) – equation (5) and the marginal model – equation (6) will be estimated:[3]

$$\Delta w_t = -\Pi_w z_{t-1} + \Phi \Delta x_t + \sum_{j=1}^{p-1} \Gamma_i \Delta z_{t-j} + c_0 + c_1 t + c_2 D_t + \upsilon_t \quad (5)$$

$$\Delta x_t = \sum_{j=1}^{p-1} \Psi_{xj} \Delta z_{t-j} + a_{x0} + \mu_{xt} \quad (6)$$

where Δ is the first difference operator and the serially uncorrelated error-terms are υ_t and μ_{xt}. w_t and x_t are a vector of endogenous (y_t, r_t) and exogenous (m_t, ex_t^{edu}) variables, respectively. $z_t = (w_t', x_t')$ is a matrix that consists of both categories of variables, c_0 is the intercept, t is the time trend, and D_t is a level shift dummy variable accommodated into the model to capture the possibility of structural break in the cointegrating model. $\{\Gamma_j\}_{j=1}^{p-1}$ and Φ are the short-run parameters, whereas $\Pi_w = \alpha\beta'$, where α represents the speed of adjustment coefficients matrix and β' represents the long-run multiplier matrix. Besides, Ψ_{xj} and a_{x0} are the short-run coefficients and intercept for the weakly exogenous variables in the marginal equation. Following Pesaran et al. (2000), we impose restriction to the time trend in Equation (5) (i.e. $c_1 = \Pi_w \gamma_1$, and $c_2 = \Pi_w \gamma_2$, where γ_1, and γ_2 are vectors of arbitrary fixed constants) to ensure that the quadratic time trends or cumulative effects of D_t does not affect the level solution of the z_t model.

2.2. Data

This study covers quarterly data from 1996:Q1 to 2015:Q4 (T = 80). The data used in the present study are extracted from two main reliable sources. Real GDP, real interest rate, real M2 money, and price deflator (2010 = 100) are collected from the *International Financial Statistics* (IFS) published by the International Monetary Fund (IMF). For interest rate, we use government bond yields adjusted for inflation as a proxy for real interest rate. Additionally, we use the total number of foreign students as a proxy for educational tourism. However, the data obtained from the *Ministry of Higher Education Malaysia* are only available on an annual basis, thus we interpolate the unavailable quarterly series using the Chow and Lin (1971) regression-based temporal disaggregation procedure.[4] All variables except real interest rate are transformed into natural logarithm to minimise the error-variances, to induce stationarity, and to standardise the unit of measurement of the variables under investigation.

[3] It is important to note that the exogenous variables are assumed not to be co-integrated among themselves due to the assumption of weak exogeneity (Garrat et al., 2006).

[4] We use quarterly series of international tourist arrivals as the benchmark series in the Chow-Lin procedure to interpolate the foreign students in Malaysia because we find that they are highly correlated (r = 0.937).

3. EMPIRICAL FINDINGS AND DISCUSSIONS

3.1. Unit Root and Cointegration Analyses

The property of stationarity in time series data is one of the main issues in applied research work because non-stationary data may lead to spurious regression problems. Therefore, we begin the data analysis by checking the order of integration of the series using the Dickey Fuller Generalised Least Squared (DF-GLS) unit root test of Elliott et al. (1996), followed by the Kwiatkowski-Phillips-Schmidt-Shin (KPSS) null stationarity test of Kwiatkowski et al. (1992), and the multiple endogenous breaks unit root test introduced by Lumsdaine and Papell (1997).

Table 1: Results of unit root tests

Variables	Non-break unit root tests		Lumsdaine-Papell (LP) unit root test		
	DF-GLS	KPSS	Model	Break	Test statistics
Levels:					
y_t	–2.479 (2)	0.166 (3)**	CC	2003:Q3; 2008:Q3	–5.484 (5)
r_t	–2.074 (4)	0.323 (3)***	AA	2000:Q2; 2008:Q2	–4.846 (4)
m_t	–2.032 (2)	0.267 (3)***	CC	2002:Q1; 2012:Q4	–5.993 (5)
ex_t^{edu}	–2.772 (4)	0.188 (3)**	CC	2002:Q3; 2008:Q3	–4.288 (12)
First difference:			Critical values[#]		
Δy_t	–3.211 (3)**	0.039 (3)	Model	1 per cent	5 per cent
Δr_t	–9.596 (1)***	0.033 (3)	AA	–6.940	–6.240
Δm_t	–3.814 (4)***	0.097 (3)	CC	–7.340	–6.820
Δex_t^{edu}	–3.229 (3)**	0.027 (3)			

Note: *** and ** indicate significance at the 1 and 5 per cent levels, respectively. The selection of appropriate model specifications (i.e. Model AA or CC) are based upon the sequential procedure presented in Chang and Nieh (2004). The sequential procedure suggests choosing a model for the unit root test with break based on the significance of the break dummy variables. We first ran each series with Model CC (allowing breaks in the slope and level). Model CC is selected if both dummy variables are statistically significantly. However, if only the level dummies are significant, the Model AA (allowing breaks in level only) will be used. The optimal lag order for ADF and LP unit root tests are reported in the parentheses following the Akaike's Information Criterion (AIC). However, the bandwidth of the three used in the KPSS test is determined by Schwert (1989) formula, $\ell_4 = int\{4(T/100)^{0.25}\}$, where int represent an integer and T is the total observation. # the asymptotic critical values are collected from Lumsdaine and Papell (1997).

The results of these tests are presented in Table 1. We find that both DF-GLS and KPSS tests consistently suggest that all of the four variables (i.e. GDP, interest rate, money supply, and educational tourism) are non-stationary at level. Results from the Lumsdaine-Papell multiple breaks unit root test offer the similar conclusion that the null hypothesis of a unit root cannot be rejected at level for all the variables. Moreover, this multiple breaks unit root test detects a common structural break date in some of the variables that coincided with the global financial crisis (also

known as the sub-prime mortgage crisis) in 2008. With regards to this finding, we have decided to impose a level shift dummy ($D08_t$) variable into our model because we believe it will affect the cointegrating relationship. However, the results of the DF-GLS and KPSS tests jointly deduce that these variables become stationary after transforming them into first difference. As such, we conclude that all variables in this study are integrated of order one, $I(1)$. These findings confirm the hypothesis of Nelson and Plosser (1982) that most macroeconomic series are non-stationary in nature, but are stationary in first differencing.

Table 2: Results of Cointegration Tests with Exogenous Variables

Panel I: VARX cointegration tests

Hypothesis		Tests Statistics	Bootstrapped critical values	
			95 per cent	90 per cent
H_0	H_1			
$LR(\lambda_{\text{trace}})$				
$r = 0$	$r \geq 1$	54.5687**	45.9836	41.9958
$r \leq 1$	$r \geq 2$	18.2667	22.1896	19.8053
$LR(\lambda_{\max})$				
$r = 0$	$r = 1$	36.3020**	31.7023	29.0318
$r \leq 1$	$r = 2$	18.2667	22.1896	19.8053

Panel II: Normalised cointegrating vector of VARX

y_t	r_t	m_t	ex_t^{edu}	$trend$	$D08_t$
1.0000	–5.8577**	1.4097**	0.1304**	–0.0126**	–0.0693**
	(1.5933)	(0.2975)	(0.0360)	(0.0054)	(0.0331)

Note: ** denotes statistically significant at the 5 per cent level. Value in parentheses denotes the standard errors. The bootstrapped critical values are computed with 76 observations and 1000 replications. The choice of VARX(2,2) model is based on the system-wide SBC, and diagnostic tests.

With the findings of uniform order of integration, we then proceed to test the presence of cointegrating relationship(s) using the modified Johansen and Juselius (1992) tests for cointegration with exogenous explanatory variables. Despite that the tests are superior in various aspects and widely applied in empirical studies, the results remain sensitive to the choice of lag structure of the endogenous and exogenous variables in the VARX model. To deal with this issue, we apply the system-wide Akaike Information Criterion (AIC) and Schwarz Bayesian Criterion (SBC) to choose an appropriate lag structure for the VARX model. The system-wide AIC statistic suggests lag structure of 4 whereas the system-wide SBC indicates lag 2 for both endogenous and exogenous variables in the VARX model. The inconsistency of recommendation between information criterion is within our expectation and also documented in the econometric literature, where AIC tends to select higher order of lag structure than the SBC. We follow Tang's (2007) suggestion by carrying out the likelihood ratio (LR) test on the null hypothesis of 2 lags against the alternative hypothesis of 4 lags to choose one of the two suggested lags. We find that the LR statistic is less than the 1 per cent critical value, thus, we cannot reject the null hypothesis of 2

lags.[5] With reference to the outcome of the LR test, we perform the Johansen-Juselius cointegration tests with 2 lags and 1000 replications of bootstrap critical values of trace $LR(\lambda_{\text{trace}})$, and maximum eigenvalue $LR(\lambda_{\max})$ tests in order to enhance robustness. The cointegration results and the bootstrapped critical values are presented in Panel I of Table 2.

The cointegration results of the present study reveal that both the trace and the maximum eigenvalue statistics reject the null hypothesis of no cointegration between y_t and r_t (i.e. $r = 0$), as the computed statistics for both tests are greater than the 95 per cent bootstrapped critical values. On the contrary, we find that the statistics do not reject the null hypothesis of at least one cointegrating relation (i.e. $r \leq 1$ or $r = 1$) between these variables. As a result, we conclude that there is one meaningful long-run equilibrium relationship between output and interest rates in Malaysia conditioned to exogenous variables – money supply and educational tourism. This result is consistent with the evidence provided by Al-mulali et al. (2014), Tang et al. (2017), and Matahir and Tang (2017b). Since the primary concern of this study is to assess the response of economic growth to interest rate, money supply, and educational tourism in Malaysia, we have normalised the cointegrating vector by economic growth. The results are reported in Panel II of Table 2.

We find that all variables in the cointegrating model are statistically significant at the 5 per cent level and also have the expected signs. In line with the economic theory of IS curve, our cointegration equation shows that real interest rate (r_t) has a negative effect on GDP (y_t), whereas educational tourism (x_t^{edu}) has a positive effect on economic growth in Malaysia, which is also corroborated with Matahir and Tang (2017b). Besides, we find that an increase in money supply will speed up economic growth, which lends support to the theory of monetary economics. However, the global financial crisis in 2008 has a significant negative impact on Malaysia's economic growth. Based on the results of our macro-econometric modelling in Panel II of Table 2, it can be concluded that tourism for education is a relevant and important service sector that can speed up the process of economic growth and development in Malaysia, especially in the long-run.

3.3. Generalised Impulse Response Function and Generalised Variance Decomposition

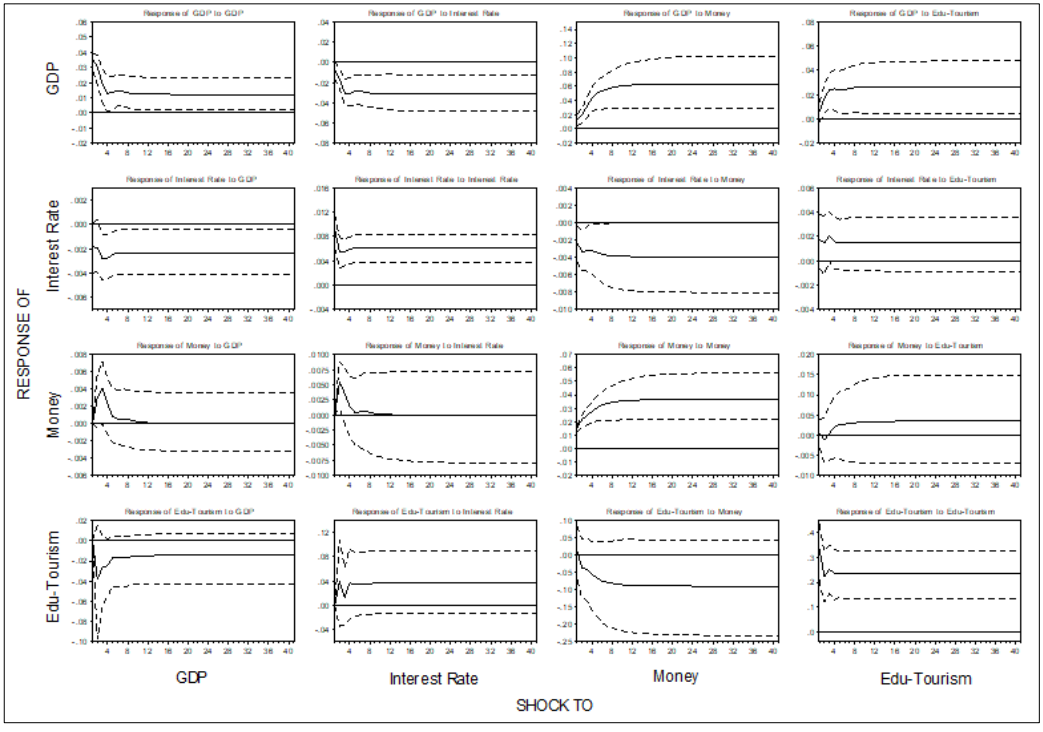
According to Solow (2001), economic relationships should be dynamic; thus, we extend our study to analyse the dynamic inter-relationships among educational tourism and interest rate, money, and economic growth using the generalised version of impulse response function and the generalised version of forecast error variance decomposition. Since the variables are cointegrated, the impulse response function and variance decomposition will be performed using the VECMX framework.

Figure 1 shows the results of generalised impulse response functions for economic growth, educational tourism, interest rate, and money supply in Malaysia over a 40-quarters forecast horizon. Given that the sample size of this study is relatively small, we attempt to improve the accuracy of statistical inference by generating the 95 per cent bootstrapped standard errors with 1000 replications for each impulse response function, as presented in Figure 1. Numerous important findings can be extracted from the results of this impulse response function. We find that economic growth responds positively to a shock on money supply and negatively to interest

[5] The log-likelihood for 2 lags is 415.279, whereas the log-likelihood for 4 lags is 418.389. The LR = –2(415.279 – 418.389) = 6.220 (p-values = 0.6226). Moreover, the multivariate diagnostic tests on VARX(2,2) suggest that the selected model is also free from serial correlation, heteroskedasticity, and is stable.

rate, which is consistent with macroeconomic theories. Moreover, we find that economic growth also responds positively to a shock on educational tourism. It is peak in the first year (4-quarters) and remains positive over the 40-quarters forecast horizon. Similar to the regular tourism industry, tourism for education is able to generate additional foreign exchange revenue, promote development in infrastructure, and create employment opportunities, especially in education-related industries.

Figure 1: Generalised Impulse Response Function With 95 Per Cent Bootstrapped Standard Errors



Next, we proceed to perform the generalised variance decomposition to trace how much a variable contributes to the other variables in the model. Table 3 shows the generalised variance decomposition for economic growth, interest rate, money supply, and educational tourism over a 40-quarters horizon. In line with our earlier expectation and economic theories, our findings suggest that money supply and educational tourism are the exogenous variables. This is because most of their variations are explained by their own innovations over 40-quarters forecast horizon. With regard to the results of generalised variance decomposition for economic growth, we find that initially the main source of variation in the forecast error of economic growth is attributed to its own innovations, which account for almost 84 per cent of the total forecast error variance. However, it falls to approximately 10 per cent after 8-quarters, and tapers off to about 4 per cent at the end of 40-quarters horizon. Moreover, we find that the other macroeconomic variables, such as money supply, interest rate, and educational tourism, peak after 8 quarters, and their innovations

account for approximately 66 per cent, 17 per cent and 13 per cent of the total forecast error variance, respectively, at the end of the forecast horizon. At the same forecast horizon, we notice that money supply tends to explain a large portion of the variation. Nevertheless, interest rate and educational tourism still contribute significantly to the variations in Malaysia's economic growth. However, our empirical results also suggest that most of the variation in interest rate is explained by its own innovation and the innovation in money supply, which is in line with the theory of monetary economics. Furthermore, both economic growth and educational tourism only explain less than 10 per cent and 4 per cent of the variation in interest rate, respectively, over 40-quarters.

Table 3: Generalised variance decomposition analysis for VECMX

Horizon	Percentage of forecast error variance explained by innovations in							
	Variance Decomposition of Δy_t				Variance Decomposition of Δr_t			
	Δy_t	Δr_t	Δm_t	Δex_t^{edu}	Δy_t	Δr_t	Δm_t	Δex_t^{edu}
1	83.94	3.53	10.07	2.46	3.68	87.49	5.81	3.02
8	10.71	19.51	56.00	13.78	9.55	66.76	19.56	4.13
12	7.56	18.56	60.60	13.28	9.53	65.25	21.29	3.93
16	6.13	18.08	62.77	13.02	9.50	64.40	22.28	3.82
24	4.82	17.62	64.79	12.77	9.45	63.51	23.34	3.70
30	4.33	17.45	65.54	12.68	9.44	63.14	23.78	3.64
36	4.01	17.34	66.03	12.62	9.42	62.89	24.07	3.62
40	3.86	17.28	66.26	12.60	9.42	62.76	24.22	3.60
	Variance Decomposition of Δm_t				Variance Decomposition of Δex_t^{edu}			
	Δy_t	Δr_t	Δm_t	Δex_t^{edu}	Δy_t	Δr_t	Δm_t	Δex_t^{edu}
1	0.00	0.00	99.89	0.11	0.00	0.00	0.11	99.89
8	0.43	0.58	98.38	0.61	0.69	1.52	6.09	91.70
12	0.26	0.35	98.69	0.70	0.59	1.70	7.87	89.84
16	0.18	0.25	98.82	0.75	0.53	1.81	8.94	88.72
24	0.11	0.16	98.93	0.80	0.47	1.92	10.11	87.50
30	0.09	0.12	98.97	0.82	0.44	1.97	10.61	86.98
36	0.07	0.10	99.00	0.83	0.42	2.01	10.94	86.63
40	0.07	0.09	99.02	0.82	0.41	2.02	11.11	86.46

Note: The above generalised variances are re-scaled into 100.

4. CONCLUSION AND IMPLICATIONS ON POLICY

The catalyst of growth for the Malaysian economy has evolved from agriculture to manufacturing. Today, the service sector has become the major contributor to the economy. Hence, tourism,

education, retailing, health, and finance are the important sub-sectors in the economy. Among these sub-sectors, tourism and education play a significant role in the growth of the economy. This study investigates the impacts of educational tourism and selected macroeconomic variables on long-run economic growth. A macroeconomic model based on the IS-LM framework is developed with the aim of analysing the education tourism-economic growth nexus. The model is estimated using the vector error-correcting autoregressive model with several exogenous variables.

Findings from the cointegrating equation show that educational tourism and money supply have a positive effect on economic growth. It can be argued that expansion in tourism for education and monetary policy can elevate the speed of the economic development of a country. The impulse response function and variance decomposition also indicate that educational tourism has a significant positive impact on the Malaysian economy.

Malaysia has become one of the affordable destinations for international students to pursue their tertiary education, especially given the recent depreciation of Malaysian currency. In recent years, the number of domestic and foreign-owned colleges and universities in Malaysia has increased tremendously. The government should make efforts to attract more foreign universities to establish campuses in Malaysia. This will help to improve the quality of education and provide students with exposure to various kinds of education systems, research cultures, and blended learning systems. Furthermore, the Malaysian government should also streamline the application process for student passes and visas, enabling potential international students to enrol in the universities without going through a tedious application process. By providing affordable, flexible, and high-quality education environments, more international students will be attracted to pursue tertiary education in Malaysia. Thus, Malaysia truly can become a higher-education hub in the region, and lucrative income can be generated for the economy through educational tourism.

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