

# How Interaction Tourism Sector and Transport Infrastructure Toward National Income in Malaysia?

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## Abstract

This study is aimed to identify the relationship between tourism, transport infrastructure and income in Malaysia. This study examines how one is correlated to another. Malaysia has been selected for this study because Malaysia is one of the countries that is doing well in the tourism industry, and it has all the transport infrastructure. Tourism revenue is one of the main sources of income in Malaysia. This study examines how tourism and transport infrastructure affects the Malaysia's income of directly and the importance of tourism and transport infrastructure towards the growth of the income in Malaysia. Secondary data is used in this study to measure and test by several econometrics models using the EViews version 12 SV software. This study uses time-series data from 1991 to 2020. Augmented Dickey-Fuller (ADF) test, Phillips-Perron (PP) test, Johansen Cointegration test and VECM Granger Causality test have been fully used to meet the objectives of the study. From this study, it shows that tourism, transport infrastructure and income have positive relationship. Meanwhile, the tourism revenue can influence the income of the country and the railway passengers.

**Keywords:** Tourism, Transport Infrastructure, National Income, Economic Indicator, Tourism Industries.

## Introduction

Tourism is an operation of holidays and visits the place of interest. Tourism simply means an act of someone spending some quality time away from home for relaxation, recreation and pleasure. Nowadays people tend to go on a short vacation or on a tour away from their house just to spend some quality time and to experience some new adventures. In today's era tourism is increasing intensively where everything is commercially organized and business oriented. Nowadays tourism means food, nature, sports, entertainment and new attractions around the world. Malaysia is one of the most visited countries by tourist. According to the statistics tourism performance for the year 2019 experiences a marginal increase of 1.0% in international tourist arrivals. A total of 26,100,784 international tourists visited Malaysia in 2019 compared to 25,832,354 in 2018. The tourism sector faces a loss because of the

pandemic. Before the tragedy happened, tourism was one of the top sectors in Malaysia. This is because there are many attractive and interesting places to visit in Malaysia.

### Tourist arrivals to Malaysia from 2011 to 2020

(in millions)

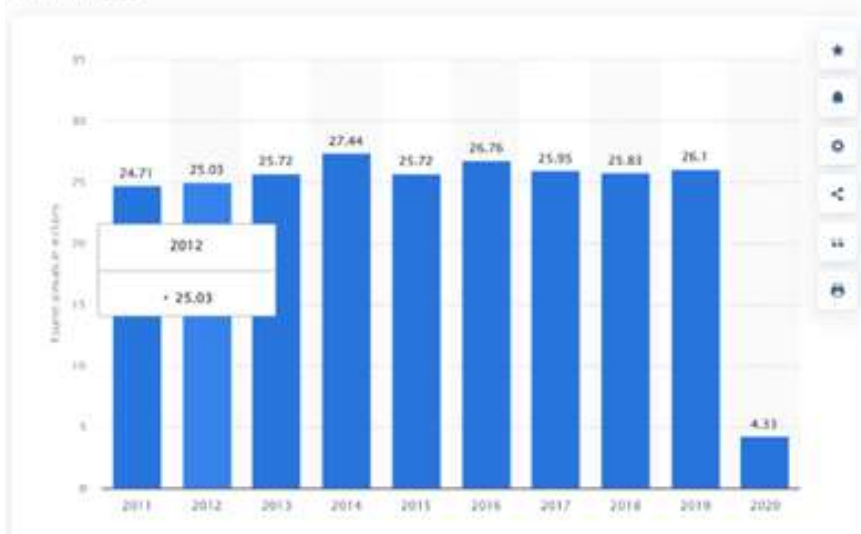


Fig 1. Tourist arrivals to Malaysia from the year 2011 to 2020

(Sources: Department Statistical Malaysia)

Malaysia's one of the top sources of income was from tourism. As we can prove it statistically, tourism Revenues for Malaysia averaged 47199.45 MYR Million from 1998 until 2020, reaching an all-time high of 86143.50 MYR Million in 2019 and a record low of 8580.50 MYR Million in 1998. So, we can see the contribution of tourism to the economy of the country. A lot of activities and business were operating under the tourism sector and it helped to improvise nations lifestyle and also to the growth of the economy. Example of the activities are tourism agencies, souvenirs shops, art craft shops, accommodations, food stalls and restaurants, transportation, tourists guide, games stalls and many more. Since tourism boosts the revenue of the country it helps to create job opportunities to the nations. Malaysia become one of the topmost visited countries because we are unique in every way. Malaysia is a multicultural country, and we have many islands and nature kind of places to explore. We also have temples, a variety of foods, colonial buildings, shopping districts and many more. As mentioned earlier, tourists love to go to places that has a better attraction.

This helps our country to increase the income of our country and to overcome the income inequality among the nations. This is because the tourism sector increases the job opportunities and support the nations financially. Transport infrastructure was one of the most support for the tourism industry to boost in short time. This is because our country has almost all the facilities for us to travel from one place to another either by bike, car, train or even flight. Almost all the area was covered and developed by the government so that it can be used for transportation. All the transport services were maintained in good condition by the government and by the public. So, it was very easy and convenient for the tourists to travel if they visit our country.

All this changed when the pandemic hit us. The government implies a law to all the sectors to shut and all the nations were forced to stay home. Mainly, the tourism sector was terribly affected because all the borders were closed and no one was allowed to visit any country to prevent the Covid-19 chain from spreading. Even though this decision was good to overcome

the pandemic but economically it was affected. The tourism sector was completely shut down till now. A lot of tourism related businesses faced bankruptcy. Now, the tourism sectors are allowed to reopen, and visitors are allowed to enter our country with strict restrictions. The airway was allowed to operate again all over the world. This helped the economy of our country to rise again slowly.

As we can see tourism, transport infrastructure and income are correlated to each other. Somehow everything is connected to one to one. There are many studies that examine this for many countries. So far there is not any studies that examine the relationship between tourism, transport infrastructure and income inequality in Malaysia. This paper will summarize how tourism and transport infrastructure affect the income of our country. The aim of this paper is to examine the relationship between tourism, transport infrastructure and income in Malaysia and to examine the importance of tourism and transport infrastructure towards the growth of income in Malaysia.

### **Literature Review**

In general, tourism has become the most important sector in all the country as it contributes a lot to the economy of a country. It is strongly believed that tourism and transport infrastructure play a major role in the income inequality of a country. There were several researchers study the relationship between tourism, transport infrastructure and income in few countries. Research about tourism, transport infrastructure and income inequality has been conducted by Jikuan Zhang and Yang Zhang for China using panel data analysis. Their study explains that the impact of tourism towards China's income inequality is minimal but the impact of tourism and transport infrastructure towards the income inequality is significant and important (Zhang&Zhang2021). There are many researchers who have conducted research related to this topic of study. The empirical results regarding the variables of this study have been discussed in this paper.

According to Jiekuan Zhang & Yan Zhang (2021), they studied the relationship between tourism, transport infrastructure and income inequality for China. The empirical study is based on panel data analysis and they tested using stationary test, cointegration test, granger causality test and dynamic regression. Their findings concluded that tourism and transport infrastructure is very important to overcome the income inequality of the country and they suggested a few suggestions that can be used during the tourism development period of the country.

A study that carried out by Md. Samsul Alam & Sudharshan Reddy Paramati (2016) examines the impact of tourism on income inequality in developing countries. 49 developing countries have been chosen for this study. The income inequality is measured using Gini coefficient and cointegration test and preliminary analysis has conducted in this study. This study concludes that tourism has a positive impact on income inequality. Tourism tends to grow faster than other sectors and it generates more revenue, job opportunities and tax revenues that increase the income and increases the income inequality among individuals. The researchers suggested some policies and suggestions for sustainable tourism economic growth.

Another study carried out by Jameel Khadaroo & Boopen Seetanah (2007) about the transport infrastructure and tourism development. This research examines the role of transportation infrastructure in destination development, demonstrating that it is a component of the traditional demand for international tourism functions. This study examines the transport infrastructure and tourism development using econometric modelling and regression analysis. This study concludes that although many researchers has discussed about the

importance of efficient transportation in the tourism developing countries, diversification in the transport infrastructure in tourism development is also one of the most important things to do. This research was conducted in 14 Mauritius and the researcher suggested more research must be conducted in this topic in coming days.

#### *Tourism*

As we all know tourism was one of the fastest growing sectors and the most important sector in all over the world. It was generating more revenue to the country and a platform to create jobs to the nations (Li, Chen, Li & Goh, 2016). A lot of studies conclude that tourism could contribute more to the income inequality of a country, which means the revenue that earned by the country by tourism will be given to the poor so that the income distribution of a country will be equal. According to Md. Samsul Alam & Sudharshan Reddy Paramati (2016) in their study about "The impact of tourism on income inequality in developing economies: Does Kuznets curve hypothesis exist?", they have explained that tourism has both positive and negative impact on the income inequality of a country. This is because the greater growth in tourism will increase the revenue of a country, and this will lead to the growth in the economy. The growth of an economy will lead to inflation and this will lead to an increase in the prices in the particular country. Even there are negative impacts still tourism can be a major game changer to the income inequality where the revenue earned by tourism can be shared to the poor in higher percentage and local tourism can also create many job opportunities (Alam & Paramati, 2016).

#### *Transport Infrastructure*

Transport infrastructure is a framework that supports the transport system. Transport infrastructure consists of railways, roads, airways, waterways, canals, pipelines and terminals such as bus stations, railway stations, airports and many more. It is basically a transport system which helps people to move from one place to another. Transport infrastructure tends to play an important role in tourism industry because it connects people from one place to the other. Tourists will use this transport when they visit a place as their mode of transportation. The studies proved that transport infrastructure is one of the important elements in developing the tourism industry and it plays a major role in income inequality too.

#### *Income*

National income means the value of goods and services produced by a country during a financial year. Thus, it is the net result of all economic activities of any country during a period of one year and is valued in terms of money. Usually, the income of a country is measured by Gross Domestic Product (GDP). Gross domestic product (GDP) is the standard measure of the value added created through the production of goods and services in a country during a certain period. As such, it also measures the income earned from that production, or the total amount spent on final goods and services (less imports). Tourism is one of the main sectors that contributes to the income of our country and it is must for a country to spend their income wisely and to distribute their wealth to all their nation accordingly. All the studies investigate whether the income earned from the tourism activity has been distributed evenly? and also the ways and suggestions to overcome income inequality in the future. According to A. H. Roslan & Mohd Saifoul Zamzuri Noor in their study, their suggest the poor should diversify more into the tourism activities as they can earn more income from it and this could help the income inequality among them. So, this shows that the job opportunities

that are created in tourism will help to overcome the income inequality. Transport infrastructure will also play a role in this.

The tourism industry is one of the fastest growing sectors all over the world and the contribution of this sector towards the economic growth of a country is high because the income from the tourism sector is high. Based on the all the studies above we can conclude that the tourism sector is playing a major role in income inequality and the transport infrastructure. Most of the studies conducted are about the relationship between tourism and income, transport infrastructure and income and tourism and transport infrastructure. There is very little research done on the relationship between tourism, transport infrastructure and income for a country. There are only studies conducted for China as discussed above. In conclusion, the importance of tourism and transport infrastructure towards the income of a country is shown in the above studies but many studies show that a country is not good at distributing the income among their nations. Moreover, transport infrastructure is playing a major role in the tourism sector that helps the growth of the economy of a country too. So, more studies should be conducted on this topic so that the right action will be taken to increase the income of the country and to distribute it evenly among the nations.

### **Methodology**

The purpose of this study is to investigate the relationship between income, transportation infrastructure, and tourism in Malaysia from 1991 to 2020. To accomplish the goal of this study, a process of variable identification, data collection, time frame selection, method identification, and test will be used. Secondary data were used for this study and EViews 12 has been used to analyse the data. The data for the variables obtained for the period of 30 years which is starting from 1<sup>st</sup> January 1991 till 31<sup>st</sup> December 2020. This simply means that this study uses time series data.

In this study, Malaysia is chosen as the country to investigate the relationship between the tourism, transport infrastructure and income. This is because Malaysia is fastest growing country in tourism sector and there is no any studies conducted related to this topic yet. Malaysia has a better transport infrastructure that contributes to the economic growth. For the transport infrastructure airway data and railway data were chosen because these two are the main transport mode in our country. The table below shows the data description for this study.

Table 1

*Data Description*

DATA	RESOURCES & EXPLANATION
Tourism Revenue	The data for tourism revenue has been extracted from the official tourism Malaysia website. The revenue is to identify how well the tourism industry is doing and it is very easy to compare one year to another. The data is collected in monetary term and from the year 1991 until 2020.
GDP	The data for GDP is extracted from the World Bank Open Data website. GDP is used to measure the economic growth of a country because it helps to measure how well an economy of a country is doing. The GDP is from the year 1991 until 2020.
Airway	The data for airway transport has been extracted from the World Bank Open Data website. It measures the passengers carried per kilometer. This data represents the transport infrastructure. Airway transport is one of the most used modes of transport for tourism industry.
Railway	The data for railway in Malaysia is extracted from the World Bank Open Data and the Ministry of Transport Malaysia official website. The data is from the year 1991 till 2020. For the first four years the data for railway is 0 because that was the time when railway was introduced into our country and the process of building the railway track was going on. The data measure the passengers carried per km.

The empirical framework used in this study consists of a linear regression method in which its dependent variable is to measure Gross Domestic Product (GDP) and its independent variable is to measure the airway, railway and tourism revenue. Based on the literature reviewed as reference, the equation is as follow:

$$GDP_t = \beta_0 + \beta_1 TR + \beta_2 AIR + \beta_3 RAIL + \varepsilon$$

Where,

GDP = Gross Domestic Product

TR = Tourism Revenue

AIR = Airway

RAIL = Railway

The  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ , and  $\beta_4$  are the coefficients of the variable in equation. The  $\beta_0$  is the parameter constant whereas the  $\varepsilon$  is the random error term.

The income is measured by the Gross Domestic Product (GDP) of Malaysia which denoted as GDP in the equation. This is dependent variable. Meanwhile, the TR is Tourism revenue. Tourism revenue is used to identify the revenue earned in the tourism sector and it indicates how well the tourism sector is doing every year from the year 1991 until 2020. Lastly, the AIR and RAIL is airway and railway data. This represents the transport infrastructure of the country. The two main transport modes have been chosen to identify the number of passengers carried per km.

To achieve the objective of this study, five tests were conducted using the EViews 12 software. The tests that were conducted are Augmented Dickey-Fuller Unit Root Test, Phillip-Perron Test, Kwiatkowski-Phillip-Schmidt-Shin Test, Johansen Cointegration Test and Vector Error Correction (Vecm) Model Granger Causality.

#### *Augmented Dickey-Fuller Unit-Root Test*

When analyzing the stationary properties of time series data, the Augmented Dickey-Fuller Unit-root Test is used. There are three different forms of null hypotheses in the ADF test. The unit root's existence and the stationary nature of the variables are implied by the null hypothesis. According to the alternative hypothesis, which assumes that the series is stationary, the variables do not have unit roots. The ADF test uses the t-statistic to determine which variables are stationary.

#### *Phillip-Perron Test*

PP test implements t-statistic to identify the stationary of series. The bandwidth of the PP test is selected using the Newey-West criterion based on Bartlett kernel method. The selection of significant variables is based on the critical value in 1%, 5% and 10% significance level. Similar with ADF test, the null hypothesis for PP test implies the series contains unit root and the variables is non-stationary. The alternatives hypothesis implies that the variables do not contain unit root and the variables are stationary.

#### *Kwiatkowski-Phillip-Schmidt-Shin Test*

The KPSS test uses the t-statistic to look at whether a series is stationary. Using the Newey-West criterion based on the Bartlett Kernal approach, the bandwidth is selected. The series is significant and the null hypothesis is rejected if the t-statistic is higher than the crucial threshold. Therefore, it can be said that the variables are stationary. If the t-statistic, on the other hand, is smaller than the crucial value, the series is insignificant and the null hypothesis was not rejected. The variable is hence non-stationary.

#### *Johansen Cointegration Test*

After identifying the stationary of the variables, the Johansen Cointegration Test is conducted to examine the long run relationship between the stock return and macro variables.

#### *Vector Error Correction (Vecm) Model Granger Causality*

The Vector Error Correction (VECM) model Granger Causality test is used to assess the short run relationship between the variables after the cointegration is identified in the Johansen Cointegration test. If the variables have statistical significance at the 1%, 5%, or 10% level and the probability is less than the significance level, the null hypothesis should be rejected. Therefore, it is possible to draw the conclusion that there exist granger causes among the variables. The data collected for this study is as follows: -

Table 2

*Time series data between 1991- 2020*

ADF Unit Root Test					
Variable		Level		1 <sup>st</sup> Difference	
		Intercept	Trend & Intercept	Intercept	Trend & Intercept
GDP		-1.242252	-1.633136	-5.384228*	-5.538662*
TR		-1.324826	-1.794018	-4.325568*	-4.243518*
RAIL		-2.245011	-2.053322	-5.792614*	-5.864339*
AIR		-1.519498	-1.687447	-1.725331	-1.105181

Year	Tourism revenue	GDP	Railways, passengers carried (thousand)	Air transport, passengers carried (Million)
1991	4,283,000	49143148094	0	11837400
1992	4,595,000	59167550163	0	12756900
1993	5,066,000	66894837030	0	13101300
1994	8,298,000	74478356958	0	14249800
1995	9,175,000	88705342903	1270.0	15417800
1996	10,354,100	10085539391	1370.0	15117600
1997	9,699,600	10000532330	1492.0	15591600
1998	8,580,400	72167498980	1397.0	13654400
1999	12,321.2	79148421052	1316.0	14984600
2000	17,335.4	93789736842	1220.0	16560793
2001	24,221.5	92783947368	1181.0	16107156
2002	25,781.1	10084552631	2256.0	16281275
2003	21,291.1	11020236842	1931.0	16704600
2004	29,51.4	12474947368	1931.0	19226564
2005	31,954.1	14353410261	2152.0	20369086
2006	36,271.1	16269123820	2120.0	17833364
2007	46,070.0	19354782406	2193.0	21325754
2008	49,561.2	23081389771	2268.0	22420870
2009	53,367.7	20225762519	2346.5	23766316
2010	56,5	25501660923	2414.9	34239014.17
2011	58,3	29795196078	2497.0	38218608.85
2012	60,6	31444314944	2321.4	39165195.22
2013	65.4	32327715890	2413.2	47995842
2014	72.0	33806196339	1985.7	49673884
2015	69.1	30135480399	1964.3	50345820
2016	82.1	30125538027	2344.2	53817353
2017	82.1	31911213654	2468.1	58711937
2018	84.1	35879160367	2317.1	60481772
2019	86.1	36527628243	2200.0	63623130
2020	12.7	33700606637	2150.0	15893988

### Findings and Discussions

#### Augmented Dickey-Fuller (ADF) Test

Table 3. Results of Augmented Dickey-Fuller (ADF) Test

Note: Asterisks (\*) denote 5% significance level.



The table above shows the empirical results of ADF test of gross domestic product (GDP), tourism revenue (TR), Railway (RAIL) and AIR (AIR) from 1991 to 2020 in annual form. From the result, GDP, TR and RAIL are not significant either in intercept or trend & intercept at level. AIR is not significant neither in intercept or trend & intercept at level and 1<sup>st</sup> difference. However, GDP, TR and RAIL are significant at 5% in intercept and trend & intercept at 1st difference. This can be concluded GDP, TR and RAIL are able to reject the null hypothesis and the data are significant and stationary at first difference and does not consist of unit root.

*Phillips-Perron (PP) Test*

Table 4

*Results of Philips Perron (PP) Test*

PP Unit Root Test				
Variable	Level		1 <sup>st</sup> Difference	
	Intercept	Trend & Intercept	Intercept	Trend & Intercept
GDP	-2.733120	2.854734	-8.295275*	-9.089811*
TR	-1.324826	-1.980240	-4.315285*	-4.228391*
RAIL	-3.629294*	-1.619788	-6.063682*	-15.35515*
AIR	-1.604675	-1.687447	-1.725331	-1.105181

Note: Asterisks (\*) denote 5% significance level.

Table 4 shows the empirical results of PP test of GDP, TR, RAIL and AIR from 1991 to 2020 in annual form. The results above show that GDP and TR are not significant either in intercept or trend & intercept at level. AIR is not significant neither in intercept or trend & intercept at level and 1<sup>st</sup> difference. However, GDP, TR and RAIL are significant at 5% in intercept and trend & intercept at 1st difference. In a nutshell, GDP, TR and RAIL variables fulfill the rejection of null hypothesis which means the variables are significant and stationary at 1st difference.

*Kwiatkowski-Phillips-Schmidt-Shin (KPSS) Test*

Table 5

*Results of Kwiatkowski-Phillips-Schmidt-Shin (KPSS) Test*

KPSS Unit Root Test				
Variable	Level		1 <sup>st</sup> Difference	
	Intercept	Trend & Intercept	Intercept	Trend & Intercept
GDP	0.378661*	0.107333*	0.220429*	0.236489
TR	0.436541*	0.116793*	0.080117*	0.078635*
RAIL	0.593962	0.1973000	0.414265*	0.500000
AIR	0.568325	0.131227*	0.175311*	0.139338*

Note: Asterisks (\*) denote 5% significance level.

Table 5 shows the empirical results of KPSS test of GDP, TR, RAIL and AIR from 1991 to 2020 in annual form. The result above shows TR is significant at level and at 1<sup>st</sup> difference. The RAIL is not significant either in intercept or trend & intercept at level. However, all the variables are significant at 5% in intercept at 1<sup>st</sup> difference. Thus, all the variables are stationary and do not reject the null hypothesis.

*Johansen & Juselius (J&J) Co-integration Test*

Table 6

*Results of Johansen & Juselius (J&J) Co-integration Test*

<b>k = 1 r = 1</b>					
<b>Hypothesis</b>		<b>Trace Test</b>		<b>Maximum Eigenvalue</b>	
<b>Ho</b>	<b>Ha</b>	<b>Trace</b>	<b>5 % CV</b>	<b>Maximum Eigenvalue</b>	<b>5 % CV</b>
<b>r = 0</b>	<b>r = 1</b>	48.4116*	47.85613	22.04737	27.58434
<b>r ≤ 1</b>	<b>r = 2</b>	26.36409	29.79707	18.13580	21.13162
<b>r ≤ 2</b>	<b>r = 3</b>	8.228290	15.49471	4.832984	14.26460
<b>r ≤ 3</b>	<b>r = 4</b>	3.395307	3.841465	3.395307	3.841465

Note: Asterisks (\*) denote statistically significant at 5% level. The k is lag length and r is the co-integrating vector(s).

The J&J test co-integration test is carried out to identify the existence of long run relationship among all the variables. The lag length for this co-integration test will be 1 because of the recommendation by E-Views 12 software. From the result above, the trace statistic value shows there is at least one co-integrating vector among the variables. It also can be read as there is at least one long run relationship among the variables. However, the Max-Eigen statistic value shows there is no any co-integrating vector among the variables. In this case, the result from trace statistic value and Max-Eigenvalue statistic is different and we can consider choosing and follow the result of trace statistic value because trace statistic will give more importance information, as trace statistic considers all of the smallest eigenvalues, it holds more power than the Max-Eigenvalue statistic. Thus, we can reject the null hypothesis and conclude that there is one co-integrating vector which implies that a long run relationship exists among the variables.

*Granger Causality Test*

The result from the previous procedure specified the presence of long run relationship among variables hinting the use of Vector Error Correction Model (VECM). However, it does not show the direction of causality among the variables. Hence, Granger Causality test is used to determine the causation. Result from Table 3 will point out both the X2 -Statistic (p-value) to imply the long run relationship and the short run causality between the variables.

Table 7

*Results for Vector Error Correction (Vecm)*

Dependent Variable	GDP	TR	RAIL	AIR
	X <sup>2</sup> - statistics (P-Value)			
<b>GDP</b>	-	38.79973 (0.0000)*	2.389190 (0.3028)	0.740468 (0.6906)
<b>TR</b>	4.004873 (0.1350)	-	1.046329 (0.5926)	0.889079 (0.6411)
<b>RAIL</b>	3.241247 (0.1978)	20.75840 (0.0000)*	-	9.865191 (0.0072)
<b>AIR</b>	0.076289 (0.9626)	0.23571 (0.9883)	0.539104 (0.7637)	-

Note: Asterisks (\*) denote statistically significant at 5% level.

For the short run relationship, only x2 statistics TR is evidenced to be significant at 5 % level at granger cause GDP and RAIL. This implies the causality direction running from TR to GDP and RAIL. Meaning, in the short run, the tourism revenue can influence the income of the country and the railway passengers.

The ADF test and PP test show the result of gross domestic product (GDP), tourism revenue (TR), Railway (RAIL) and AIR (AIR) from 1991 to 2020 in annual form. From the result of ADF, GDP, TR and RAIL are not significant either in intercept or trend & intercept at level. AIR is not significant neither in intercept or trend & intercept at level and 1st difference. However, GDP, TR and RAIL are significant at 5% in intercept and trend & intercept at 1st difference. This can be concluded GDP, TR and RAIL are able to reject the null hypothesis and the data are significant and stationary at first difference and does not consist of unit root.

Meanwhile, the results for PP test show that GDP and TR are not significant either in intercept or trend & intercept at level. AIR is not significant neither in intercept or trend & intercept at level and 1st difference. However, GDP, TR and RAIL are significant at 5% in intercept and trend & intercept at 1st difference. GDP, TR and RAIL variables fulfill the rejection of null hypothesis which mean the variables are significant and stationary at 1st difference. So, KPSS test was conducted to confirm the significance of all the variables.

KPSS test shows that all the variables are significant at 5% in intercept at 1st difference. Thus, all the variables are stationary and do not reject the null hypothesis. The J&J cointegration test shows, the trace statistic value shows there is at least one co-integrating vector among the variables. It also can be read as there is at least one long run relationship among the variables. However, the Max-Eigen statistic value shows there is no any co-integrating vector among the variables. Thus, we can reject the null hypothesis and conclude that there is one cointegrating vector which implies that a long run relationship exists among the variables.

### Recommendation

As we all know and statistically proven, tourism is one of the most important sectors and it contributes a lot to the growth of the income of our country. Moreover, transport infrastructure is also playing an important role in the tourism industry. But there is a decline in the tourism revenue because of Covid-19 pandemic. All the sectors, mainly the tourism sector was forced to shut down for the nations' safety. Everything was back to normal recently in the year 2022. There are few policy recommendations that can be used to better of the tourism industry and to increase the income of the country.

Firstly, the government should allow all the tourism sectors to operate as usual with standard operating procedures. Even when the tourism activities are operating there are many restrictions in it. Many activities are still under shut down because of the restrictions that the government has set and due to bankruptcy in the business. So, the government should loosen the restrictions and provide financial help to tourism-based activities so that it will increase the income of the country. This will also increase the passengers for transport infrastructures that will also indirectly lead to the growth of the income of our country.

Secondly, the government should consider involving in the pricing of the transport infrastructures because transport infrastructure plays an important role in the tourism industry. Nowadays, the cost of transport infrastructure is expensive, mainly airway. Tourists from other countries will use airway transport to get into our countries and followed by other modes of transport. So, reducing the cost of transport will enable more tourists to visit our country and this will increase the growth of the income and will enhance the tourism sector.

### Conclusion

In conclusion we can say that tourism, transport infrastructure and income have positive relationship. Meanwhile, the tourism revenue can influence the income of the country and the railway passengers. We can also say that there is a long run relationship exists among all the variables that has been tested in this research. Tourism, transport infrastructure and income have a strong relationship where one is correlated to the other. Tourism industry is one of the fastest growing industries in Malaysia and contributes a lot to the income of the country. The tourism industry has its own ups and downs. For example, during the pandemic era tourism sectors were forced to shut down and this made the economy of our country decline and caused many impacts on the well-being of our nations. Now, after the pandemic ends the tourism industry is growing rapidly again and it is contributing to the growth of the income of our country. Transport infrastructure is one of the important elements that supports the growth of the tourism industry. It plays an important role in upbringing the tourism industry. The government should make new implements to the tourism sector so that the economy of the country will increase and at the same time people can spend some quality time out from their house during the holidays safely and in peace.

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