

Analysis on the Relationship between Tourist Arrival and Unemployment in Malaysia

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ABSTRACT

The tourism industry has an important role in the Malaysian economy as one of the income sources; to create job opportunities and reduce the unemployment rate within the country. The main objective of this research is to investigate the relationship between tourist arrivals and unemployment in Malaysia from 1999 to 2018. The dependant variable for the study is unemployment while tourism arrival is the independent variable. The data of tourist arrivals and unemployment from 1999 to 2018 were obtained from the World Bank. The economics theoretical analysis is carried out by applying the statistical model such as Ordinary Least Square (OLS) to investigate the relationship between variables. In simple terms, the data is analyzed to determine the correlation coefficient and the causal relationship between tourist arrivals and unemployment. The findings of the study show that there is a significant negative relationship between both variables which means when tourism arrival increases, the unemployment issue will decrease in Malaysia. The major finding which is the relationship between tourist arrivals and unemployment is verified based on the correlation coefficient of determination results in this research.

Keyword: Malaysia, Tourism, Unemployment.

1. INTRODUCTION

In this era of globalization, tourism is considered as one of the most important economic and social sectors in the world as it plays a vital role in national development. Tourism activities are practised through its service units such as hotels, restaurants, and transportation facilities which are combined into a package of services sold to tourists. Tourism plays an essential role in the country's economy and occupies a prominent position which emphasizes that any country that has expanded the tourism sector is on the path to economic development and structural economic improvement. According to Spillane (1987), the researcher defines tourism as a journey from one place to another which is temporary and was carried out whether as an individual or in groups, as an attempt to find a balance or harmony with the environment or happiness in the social, cultural, and natural sciences. Moreover, Eugenio-Martin et al. (2004) suggest that tourism activity may affect income differently in nations that have low income such as developing nations than developed nations with high income.

Tourism is also known as a dynamic and competitive industry which requires the ability to constantly adapt to the changing needs and desires of customers, as the customer's happiness, enjoyment and safety are the focus of tourism businesses. Tourism is inevitably open to different interpretations, yet any accurately applied key tourism terms at the national, regional and local level are acceptable. Thereby, tourism planning and management are known to be partially successful when the various stakeholders involved have different conceptions of what tourism means.

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Generally, unemployment is known as one of the major dysfunction of the labour market. Unemployment, in the modern economy, does not always happen and has caused certain issues to have arisen. The key issues are their dimensions, their distribution to the entire population, their persistence in the case of individuals or groups, the number of unemployment benefits associated with pay and how long. In Malaysia, there is about 3.2 per cent of the country's unemployment rate or 510,000 people unemployed was recorded as of December 31, 2019. Malaysian planners found that most of them are unemployed for less than six months, likely to find a job, not yet looking for a suitable job or waiting for a reply from a prospective employer. Generally, unemployment is known as one of the major dysfunction of the labour market. Unemployment can also be defined as people who do not have a job yet they are actively looking for work and currently are available for a job. In simple terms, unemployment refers to individuals who are able to work but there are no job opportunities for them or they cannot obtain a job due to certain reasons, which eventually causing them to remain unemployable.

There are three main types of unemployment which include cycle, friction, and structure unemployment. When the economy entered into the recession, thus many citizens lost jobs and being unemployed is considered as cyclical unemployment. Meanwhile, the friction unemployment occurred primarily as the shift of the normal labour market and thereby those workers require a longer time to find new jobs. Structure unemployment refers to the absence of certain types of workers. This usually occurs when there is a mismatch between the skills requested by the employer and the skills owned by the employees. Significant advances in technology, as well as lower labour costs abroad, are the main reasons that lead to unemployment apart from other external factors.

In addition, unemployment is considered as a serious issue faced by most developed and developing countries and thus results in socio-economic problems within the country. In the United States, the high unemployment rate reflects the failure of the government to overcome the turmoil that hit the national economy because the country relied heavily on foreign economic development. The mass media also broadcast a program that recounts the unemployment experience to succeed in life as evidence that the country's unemployment polemic is also a political issue.

The arrival of tourists has opened a wider job opportunity in Malaysia due to increasing tourism arrival that encourages greater workforce particularly in sectors such as hotel workers, tour guides, souvenir shops and handicraft workers. The growth of the tourism industry increases the demand for trained and experienced workers in the industry at the level of management and supervision of skilled and semi-skilled workers. In addition, the tourism industry provides various business opportunities for the community. The growth of the tourism industry has been a catalyst for the growth of other sectors such as trade, food and beverage, flowers, handicrafts, agriculture and livestock. It has helped to decrease the unemployment rate in our country. At the same time, the standard of living of the people will also increase. Thereby, it is necessary for the government to plan and implement exclusive strategies to attract ever-increasing tourism arrival to reduce the unemployment issues in the country.

The variables of the study refer to tourism arrival and unemployment issues in Malaysia from 1999 to 2018. The trend analysis was carried out on each dataset to determine the pattern and obtain the information of each variable.

1.1 Trend on Tourism Arrival in Malaysia From 1999 to 2018

Figure 1 presents the number of tourism arrivals in Malaysia from 1999 to 2018. Overall, it shows that Malaysia has an increasing tourism arrival over time from 1999 to 2018. However, the number of tourism arrival has decreased from 13,292 Million in 2002 to 10,577 Million in 2003. Moreover, the number of tourism arrival has dropped from 27,437 Million in 2014 to 25,721

Million in 2015. The highest number of tourist arrivals occurred in 2014 with 27,437 Million arrivals. Meanwhile, the lowest number of tourist arrivals happened in 1999 with 7,931 Million. From Figure 1, it can be concluded that in general, the number of tourism arrival has increased from 1999 to 2018.



Figure 1. Number of Tourism Arrivals in Malaysia from 1999 to 2018.

1.2 Trend on Unemployment in Malaysia From 1999 to 2018

Figure 2 shows the number of unemployment in Malaysia from 1999 to 2018. Unemployment has decreased typically for 20 years. However, the uneven data occurred due to unstable declines and increases in the unemployment rate over time. For example, the highest decline of unemployment happened in 2009 by 323,67 Million while the lowest unemployment rate occurred in 2011 by 279,92 Million.

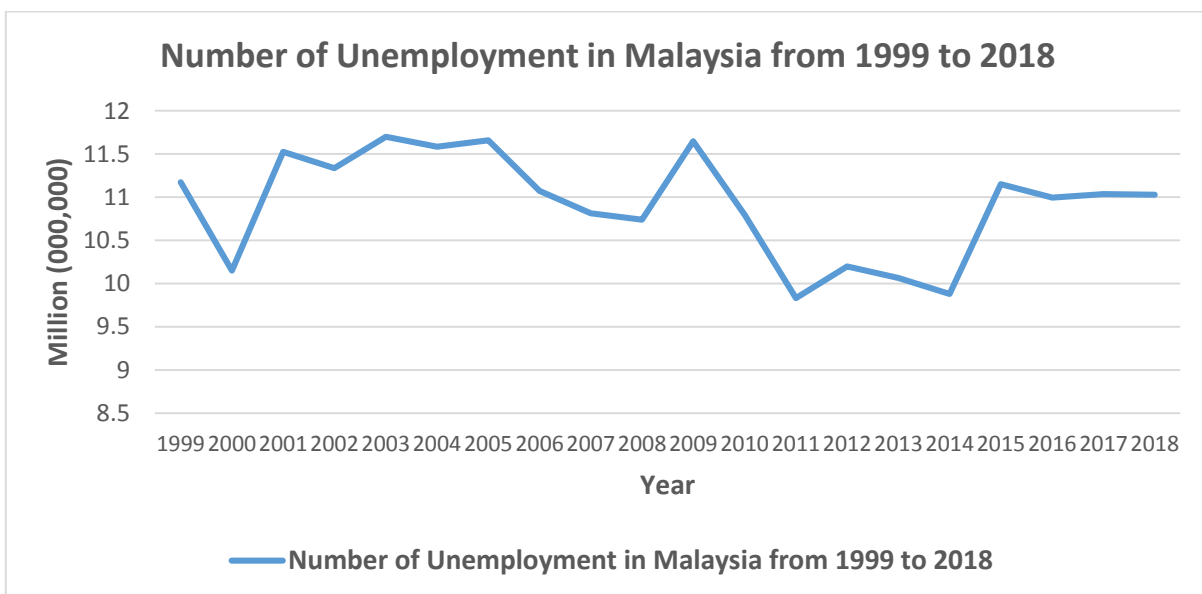


Figure 2. Unemployment in Malaysia from 1999 to 2018.

The graph in Figure 2 shows that tourism arrival has a negative impact on unemployment in Malaysia. The tourism arrival increases help provide wider job opportunities and thereby the

unemployment rate decreases. Thus, clearly indicates that tourism arrival is a vital industry to decrease the unemployment rate for a country in the short and long term. For example, the number of tourist arrival in 2004 has increased from 10,577,000 Million in 2003 to 27,437,000 Million in 2014 and thus the unemployment rate occurred in 2004, 286,720 Million is considered relatively low.

Despite many challenges and difficulties faced by government tourism, tourism undeniably requires a labour force that increases the supply of job and eventually contributes to reducing the unemployment rate within the country.

2. LITERATURE REVIEW

The tourism industry plays a vital role to drive rapid growth in the country's economy, which then creates more job opportunities and eventually reduces unemployment in the country. The tourism arrival increases within a country typically lead to a reduction in unemployment mainly because the increasing tourism industry drives rapid growth in job opportunities. This means that there will be greater job opportunities being offered particularly in the service industry such as booking and reservation, accommodation, food or beverages, hospitality and transportation industry. For instance, the continuous growth in the tourism arrival encourages business operation in services industry such as hotels, restaurants, taxis, and souvenir sales that indirectly through the supply of goods and services needed by tourism-related businesses.

An increase in tourism and consequently in the demand for goods and services designed for tourists lead to a reduction in unemployment. Based on the previous research conducted by López (2019), the tourism sector has influenced the growth rate of the unemployment, which means when the tourism sector decreases, the unemployment rate will increase in Mexico. Moreover, the results also show that the relationship between the tourism sector and the unemployment rate becomes stronger during an economic crisis yet weaker during the expansion period.

According to Brojeh (2012), Arabic countries have recognized the importance of the tourism sector in the reduction of unemployment and thus, the country has placed tourism competitiveness at the forefront. This is primarily because tourism activities strongly contribute to job opportunities and eventually stimulate the growth of the economy in the country. Alsarayreh (2017) proved that the impact of tourism reduces the number of unemployment rate due to the financial incentive available in touristic that help decreases the number of unemployment. The researcher claims that there is a statistically significant impact of tourism in reducing the unemployment rate. Thus, it is proved that there is a negative relationship between two variables, whereby the higher the tourism arrival, the lower the unemployment rate.

In addition, Schubert (2012) claimed that an increase in tourism demand is due to the higher advertising fee that has been spent, then the overall unemployment regardless of economic unemployment or sectoral unemployment would decrease significantly. Therefore, it could be concluded that the relationship between tourism arrival and the unemployment issue is significantly negative. Last but not the least, the hypothesis for this study was developed based on previous studies where:

H1: Tourism Arrival significant negatively influences unemployment.

3. METHODOLOGY

In the methodology section, the researchers employ a quantitative method to measure how tourist arrival affects unemployment in Malaysia. Several sources of data such as the data from electronics have been applied to collect the data about tourist arrival and the unemployment rate in Malaysia. As mentioned, all the data of tourism arrival and unemployment rate are obtained from the World Bank because the data from the World Bank is more accurate than other sources. In this study, tourist arrival is the independent variable while unemployment rate is the dependent variable. Generally, the objective of this study is to investigate the relationship between tourist arrival and unemployment in Malaysia from 1999 to 2018. EVIEWS software was used to analyse the data of both variables through Regression Analysis. The model specification for this study is shown below:

$$\ln LNU_t = \alpha_1 + \alpha_2 \ln TA_t + \varepsilon_t \quad (1)$$

Where,

- $\ln LNU_t$ = the In of unemployment in year, t
- $\ln TA_t$ = the In of tourist arrivals in year, t
- ε_t = random value of error

The simple model in equation (1) is used to explain the relationship between the two variables. The model includes both dependant and independent variables to produce a more reliable estimation and result. Higher allocation to tourist arrival ($\ln TA_t$) from government means that the contribution of government to the development of tourism industry such as hotels, conference centres, educational, medical, agrotourism facilities or food and beverages that could help to increase job opportunities and thereby, leads to a reduction in unemployment ($\ln LNU$). By applying the model, it is proved that tourist arrival correlates to unemployment.

The study also used the Ordinary Least Squares (OLS) which is known as a statistical method to further estimate the relationship between tourist arrivals and the unemployment in Malaysia from 1999 to 2018. However, Adjusted R-squared is much better than R-squared because it measures the predictive strength of regression models containing varying predictor numbers. Meanwhile, R-Squared only works as expected with one explanatory variable on a simple linear regression model. Moreover, the researchers have used the information that was taken from other related journals title published in national and international to support the justification for the research.

3.1 Research Framework

Figure 3 shows the research framework of variables, where the dependable variable refers to the number of tourism arrival while unemployment is the independent variable in this study.



Figure 3. Shows the Statistic Model Specification.

4. RESULTS AND FINDINGS

Table 1 presents the results of mean, median, maximum and minimum value of unemployment and tourism that have been used to calculate the standard deviation for both variables. Since the data has been collected for each variable, therefore, each variable has different means and standard deviations. The dependent variable which is unemployment has a certain mean and standard deviation where it has been based on the dataset of tourism arrival. Standard deviation is defined as a number used to tell how measurements for a group are spread out from the average (mean), or expected value. A high standard deviation indicates the values in the data collected set are spread out and farther away from the mean or expected value on average.

Table 1 Descriptive Statistic

	UNEMPLOYMENT	TOURISM
Mean	295139816	20144150
Median	290608070	22849000
Maximum	352331937	27437000
Minimum	234401161	7931000
Std. Dev.	28378062	6434958
Observations	20	20

Table 2 present the estimate models to examine the relationship between tourism arrival and unemployment in Malaysia. The results indicate that the value of probability is significant at 1% which means that the null hypothesis is rejected and the alternative hypothesis is accepted. From Table 2, equation (2) was derived.

$$\ln LNU_t = 16.33947 - 0.188517 \ln TA_t \tag{2}$$

Based on equation (2), it can be inferred that a 1% increase in tourism arrival will cause the unemployment rate to be decreased by 0.188517%. The coefficient of tourism arrival -0.188517 indicates that number of tourism arrival is significant negatively to the unemployment. In simple terms, it suggests that tourism arrival has a negative relationship with unemployment. Thus, higher tourism arrival can contribute to a decrease in unemployment in Malaysia.

Table 2 Model Estimation for Ordinary Least Squares

Variable	Coefficient	Std. Error	t-Statistics	Prob.
LN_TOURISM	-0.188517***	0.040418***	-4.664192***	0.0002***
C	16.33947***	0.677464***	24.11859***	0.0000***
R-squared	0.547223	Mean dependent var		19.49852
Adjusted R-squared	0.522069	S.D. dependent var		0.097089
S.E. of regression	0.067120	Akaike info criterion		-2.470029
Sum squared resid	0.081092	Schwarz criterion		-2.370456
Log-likelihood	26.70029	Hannan-Quinn criteria		-2.450591
F-statistic	21.75469	Durbin-Watson stat		1.072645
Prob(F-statistic)	0.000193			

Notes: ***, ** and* indicate the rejection of the null hypothesis of nonstationarity at 1%,5% and 10% significance level.

Table 2 shows the adjusted R-squared of 0.522069, which means that the variation of unemployment (dependent variable) can be explained by 52.21% of tourism arrival (independent variable). The probability of F-statistics, 0.000193 shows that regression is significant which means at the tourism arrival gives a significant impact on unemployment. In

addition, the value of Durbin-Watson statistic, 1.072645 shows a positive autocorrelation since the value obtained less than 2. Based on the results obtained in table 2 the value of R-squared at 0.547223 indicates that approximately half proportion of variation in unemployment (dependent variable) can be attributed to the tourism arrival (independent variable). In simple terms, there are approximately 55% of unemployment can be explained by the tourism arrival. The R-squared value obtained for this model generally considered a moderate effect size since the value of R-squared value is in between 0.5 to 0.7. However, adjusted R-squared is much better than R-squared because it measures the predictive strength of regression models containing varying predictor numbers. Meanwhile, R-Squared only works as expected with one explanatory variable on a simple linear regression model. As for Durbin Watson statistic, the positive autocorrelation occurs because of a given error sign tends to be followed by the same error sign which means positive errors are typically followed by positive errors.

As a conclusion, result in this study clearly shows that the relationship between tourism arrival and unemployment is negative and significant. This result is deemed to be good based on the value obtained for R-square and Adjusted R-square, however, the value of Durbin Watson statistic indicates the existence of autocorrelation problems for this model. Based on this result, there is cointegration between tourism arrival and unemployment.

5. CONCLUSION

This study has explored the relationship between tourism arrival and the unemployment rate in Malaysia from 1999 to 2018. The results show that there is a significant and negative relationship between both variables. In simple terms, a 1% increase in tourism arrival will cause unemployment to be decreased by 0.188517%. Thereby, it can be concluded that higher tourism arrival will lead to lower unemployment in the country.

The main purpose of this research is to determine the relationship between tourism arrival and unemployment. From the research's results, it was proven that the relationship between tourism arrival and unemployment is negatively significant. For instance, it is found that the unemployment rate in Malaysia decrease as the increase in the tourism arrival encourages ever more service industry to open up more job opportunities for Malaysian. The result obtained is deemed to be concise and accurate provided with strong evidence. In addition, the research's result is reliable because previous related studies have been referred to while conducting this research. Thus, this research can be considered as a further research or reference for other researchers who want to further investigate the relationship between tourism arrival and unemployment.

The design of the current study is subject to limitations as with the majority of studies. The primary limitation refers to the lack of prior research studies on the relevant topic. It is difficult and challenging for the researchers to find relevant journal, not to mention to obtain journals with the exact similar findings as this research. For example, the related journals might include several factors such as dynamic relationship between tourism arrival and inflation and unemployment with the crime rate in Malaysia. If the journals that involved several variables were referred, it will affect the accuracy of this research. Besides that, it is hard to obtain factual information to support results in this study due to the limited number of journals as reference sources were.

In 2019, the unemployment rate was approximately 3.4 per cent in Malaysia. The unemployment rate in Malaysia is known to be relatively low and stable at around 3 per cent, which means that the population experienced close to full employment. However, after exploring the relationship between tourism arrival and unemployment, the researchers realized that the significant impact of tourism arrival on unemployment in a country. Therefore, the researchers would like to

provide some recommendations to increase tourism arrival so the unemployment issues in Malaysia will be reduced to ever-lower and stable.

First of all, the government should reinforce security level since the security of a country is known as the most vital element to attract ever-more tourist. This is because the frequent threats of violence can cause a bad reputation for the country thus people more likely to feel risky to visit the country. Thus, the government should control the threat of terrorism by examining suspicious persons and controlling the country's borders to prevent illegal entry of immigrants to reduce criminals from entering the country. In addition, the country should concentrate on marketing efforts without media coverage through digital influences. For example, a famous worldwide badminton player like Dato' Lee Chong Wei as an influencer to advertise interesting places in Malaysia as it will effectively promote the country widely through social media.

Apart from reducing the unemployment in Malaysia, the presence of foreign tourists also provides an opportunity for the tourism sector to expand its market. As a result, higher tourism arrival will help reduce the unemployment issue. Hence, cooperation from all parties is important in order to promote the country globally.

REFERENCES

- Tang, F. C. (2011). An exploration of dynamic relationship between tourist arrival, inflation and unemployment with crime rates in Malaysia. *Journal of Social Economics*, 38 (1), 50-69, 20.
- Gounopoulos, D., Petmezas, D. & Santamaria, D. (2012). Forecasting tourist arrival in Greece and the impact of macroeconomic shocks from the countries of tourist's origin. *Journal of Economics Finance and Administrative Sciences*, 39 (2), 641-666.
- Alsarayreh, M. N. (2017). The role of tourism in reducing the rate of unemployment in touristic professional institutions in Jordan (From the point of view of workers in the tourism sector). *Journal of Tourism, Hospitality and Sports*, 32(8), 79-85.
- Supriyadi, E. (2017). The Economic impact of international tourism to overcome the unemployment and the poverty in Indonesia. *Journal of Environmental Management and Tourism*, 2(18), 451-475.
- López, F.S. (2019). Unemployment and growth in the tourism sector in Mexico: Revisiting the growth-rate version of Okun's Law. *Journal of Tourism and Hospitality Research*, 7(83), 1-17.
- Gounopoulos, D., Petmezas, D. & Santamaria, D. (2012). Forecasting tourist arrival in Greece and the impact of unemployment shocks from the countries of tourist's origin. *Journal of Economics Finance and Administrative*, 39(2), 641-666, 59.
- Kuso, Y & Gachunga, M. J. (2019). An analytical study of the impact of unemployment on economics growth in Kenya. *International Journal of Business Marketing and Management*, 4(4), 52-57.
- Soylu, Ö. B & Çakmak, İ. (2018). Economic growth and unemployment issue: Panel data analysis in Eastern European Countries. *Journal of International Studies*, 11(1), 93-107.
- Condratov, I. (2019). The relationship between tourism and unemployment: A panel data approach. *Journal of Tourism-studies and Research in Tourism*, 3(23), 1-6.
- Schubert, S. F. (2012). Tourism and unemployment: The effect of a boom in tourism demand on unemployment. *Revista Tourism & Desenvolvimento*, 2(17), 35-36.
- Rahim, Ab. N. S. (2014). A study on relationship between tourist arrivals, inflation, and unemployment with crime rates in Malaysia. *Journal of Economics Social and Tourist*, 1(1), 1-12.
- Alegre, J., Mateo, S., & Pou, L. (2013). Tourism participation and expenditure by Spanish household: The effect of the economic crisis and unemployment. *Journal of Tourism Management*, 39(2), 37-49.
- Shaari, M. S., Ahmad T. S. T., & Razali, R. (2017). Tourism led-inflation: A case of Malaysia. School of Business Innovation and Technopreneurship, Universiti Malaysia Perlis.

- Lean, H. H., Chong, S. H & Hooy, C. W. (2014). Tourism and economic growth: Comparing Malaysia and Singapore. *Journal of Economics and Management*, 8(1), 139-157.
- Mourdoukoutas, P. (1988). Seasonal employment, seasonal unemployment and unemployment compensation: The case of tourist industry of the Greek Island. *American Journal of Economics and Sociology, Inc*, 47(3), 315-329.
- Algera, J. Mateo, S & Pou, L. (2013). Tourism participation and expenditure by Spanish household: The effects of the economics crisis and unemployment. Retrieved April 29, 2020, from: [file:///C:/Users/ACER/Desktop/Universiti%20Malaysia%20Perlis%20\(PPIPT\)/SEMESTER%2004/INTERNATIONAL%20ECONOMICS/GROUP%20ASSIGNMENT/JOURNAL/1-s2.0-S0261517713000897-main.pdf](file:///C:/Users/ACER/Desktop/Universiti%20Malaysia%20Perlis%20(PPIPT)/SEMESTER%2004/INTERNATIONAL%20ECONOMICS/GROUP%20ASSIGNMENT/JOURNAL/1-s2.0-S0261517713000897-main.pdf)
- Canada, H. R. (April 15, 2020). *Capturing the Full Picture as Tourism Unemployment Spikes*. Retrieved May 13, 2020, from <http://tourismhr.ca/capturing-the-full-picture-as-tourism-unemployment-spikes/>
- International Labour Organization, ILOSTAT database (March 1, 2020). *Unemployment, youth total (% of total labor force ages 15-24) (modeled ILO estimate) - Malaysia*. Retrieved May 9, 2020, from: <https://data.worldbank.org/indicator/SL.UEM.1524.ZS?end=2019&locations=MY&start=1999>
- World Tourism Organization. (2019). *International tourism, number of arrivals - Malaysia*. Retrieved May 9, 2020, from: <https://data.worldbank.org/indicator/ST.INT.ARVL?end=2018&locations=MY&start=1999>
- Nash, J. (n. d.) *Three Types of Unemployment: Cyclical, Frictional Structural*. Retrieved May 23, 2020, from <https://study.com/academy/lesson/three-types-of-unemployment-cyclical-frictional-structural.html>

