

The Impact of Foreign Mission on Malaysia's Export

Rafiq Idris^{1*}
Rizal Zamani Idris²

¹Faculty of Business, Economics and Accountancy, Universiti Malaysia Sabah

²Faculty of Humanities, Arts and Heritage, Universiti Malaysia Sabah

Received date: 10 October 2018, Accepted date: 22 October 2018

Abstract

Malaysia currently maintains diplomatic relations with foreign countries through 105 missions and has established embassy/high commission and consulate offices in 83 countries. Foreign Mission such as having embassy, high commission and consulate offices abroad is believe to play significant role in determining a country's export. Many past studies have indicated that Foreign Service has positive impact on trade. This paper attempts to assess the effect of having embassy/high commission offices abroad on Malaysia's export. Gravity model is used to examine the influence of foreign mission on Malaysia's total export to rest of the world, using data from year 1990 to 2010.

Keywords: *Malaysia, foreign mission, export*

1 Introduction

Malaysia has undertaken more than 100 missions in 83 countries since independence, with 66 embassies, 16 high commissions, 3 permanent representatives to UN and ASEAN, 19 consulate offices and a Malaysian Friendship and Trade Centre opened abroad. These offices have many other important functions abroad as it plays important role for a country's trade.

Many economists have attempted to discuss on the effectiveness of Foreign Service as export promotion agency on a country's trade. Some studies have found positive link between Foreign Service and trade. In addition, there are few studies which have shown insignificant effect of Foreign Service on trade.

Having said all the above, few questions arise in this connection. Has Foreign Service played important role in determining Malaysia's export? Is Foreign Service abroad a significant variable in explaining Malaysia's export? This paper attempts to find the answers by conducting a regression analysis using the gravity model. Recent data ranging from the year 1990 to 2010 are used in the estimation. However, MATRADE offices overseas as export promoting agency are not included in the

analysis due to the fact that MATRADE offices do not operate in countries where Malaysia do not have embassy/high commission and consulate.

The study gives an indication whether or not Foreign Service plays an important role in explaining export. The findings may give a signal whether or not embassy/high commission/consulate offices abroad have benefited trade, at least from trade perspective. The first section provides some background on Malaysia's Foreign Service. Second section explains some past empirical studies on similar topic. The third section discusses the methodology of the study, while the fourth section reports the findings. The final section gives concluding remarks.

2 Malaysia Foreign Mission

The main representative body for a country in another country is known as embassy while high commission is used for missions between Commonwealth countries. Consulate refers to small official office of a country in another country. In some countries, Malaysia has some consulate general offices as an addition to the embassy's office. Table 1 in Appendix 1 is the details of the offices opened abroad.

From Table 1 in Appendix 1, it shows that Malaysia has launched 105 missions in 83 countries since independence. It comprises of 66 embassies, 16 high commissions, 3 permanent representatives to UN and ASEAN, 19 consulate offices and a Malaysian Friendship and Trade Centre.

Foreign mission aims at sustaining good relations with other countries and international organizations. Besides that, the offices compile beneficial information and news that may bring effect on Malaysia's national interests. In addition, Foreign Service plays the role of conducting negotiations with foreign countries on various areas. Moreover, Foreign Service overseas are responsible for arranging and coordinating the visits both incoming and outgoing involving ministers. Furthermore, it carries the obligation for projecting a good image of Malaysia internationally. Apart from that, it acts as platform for agencies in Malaysia to promote the country for different purposes such as for investment, trade, tourism and so on.

3 Empirical Review

This section attempts to highlight some past studies which examine the link between foreign service and trade. Indeed, there are many studies that have been conducted to assess the impact of foreign missions on trade. For instance this can be found in the

study of Rose (2007) on which he looks into the role of embassy of many countries of the world as export promotion agent. His study results show that embassy has positive link with export. Besides, embassy creation has significant impact on trade but each additional consulate has lesser impact.

The work of Gil et al. (2007) tries to examine on the link of regional export promotion agencies and the Foreign Service with export. Their study results found that there is a positive effect of Foreign Service and regional export promotion agencies on export. Segura-Cayuela and Villarubbia (2008) has investigated on the role of Foreign Service on trade. Their study found that Foreign Service has a trade creating effect. Head and Ries (2010) attempted to study on the impact of trade missions on Canadian export. Their regression results found that there is no effect of trade missions on export. The study of Welander (2011) attempts to investigate whether Swedish Trade Council (STC) and Foreign Service such as embassies and consulates can be linked to Sweden's export using gravity model. The regression results indicate that there is systematic link between Foreign Service, STC and Swedish export.

To sum up, most selected past studies have shown positive effect of Foreign Service/export promotion agent on export. Limited study has attempted to look specifically into the effect of Foreign Service on Malaysia's export. This paper hence tries to investigate this issue for Malaysian case and fill in the literature gap.

4 Methodology

To assess the effect of foreign mission on export, gravity model will be applied. Initially, gravity model was used by Tinbergen (1962) and Poyhonen (1963) to explain that trade between two countries are determined by national incomes and geographical distance. Later, many use gravity equation by including some new variables into the model. In this study, the following equation will be used for estimation:

$$\ln(X_{ijt}) = \beta_0 + \beta_1 \ln D_{ij} + \beta_2 \ln(Y_i Y_j)_t + \beta_3 \ln(N_i + N_j)_t + \beta_4 \text{Abs}(\ln YPC_i - \ln YPC_j)_t + \beta_5 \ln E.R_{ijt} + \gamma \beta_5 \text{FTA}_{ijt} + \gamma \text{EmbHCom}_{ijt} + \varepsilon_{ijt} \quad (4.1)$$

where i denotes the exporter (Malaysia), j denotes the importer, $\ln(\cdot)$ denotes the natural logarithm operator, β is the coefficient, ε_{ij} represents the omitted other influences on exports which assumed to be well behaved and the variables are defined as those in Table 1.

Table 1 Variables and sources

Type of variables	Data	Source
Dependent Variable	X_{ij} : annual export from Malaysia (i) to country j in US dollars, using data from 1990 to 2010	United Nations Commodity Trade website (2012)
Independent Variables	D: the distance between Malaysia and country j (capital city distance in kilometer)	Geobytes (2012) websites
	Abs ($\ln YPC_i - \ln YPC_j$): difference in real GDP per capita of country i and j in logarithmic and absolute form (in US dollars). Also called relative development.	Heston, Summers and Aten (2012)
	$\ln(Y_i Y_j)$ is GDP of country i and j in multiplicative and logarithmic form (in real US dollars)	Heston, Summers and Aten (2012)
	$\ln(N_i + N_j)$: population in country i and j	Heston, Summers and Aten (2012)
	$E.R_{ij}$: Bilateral exchange rate. Trading partner's units of currency that can be purchased by one RM	World Bank (2013)
	FTA: Free trade agreement in the form of binary variable. The value is unity if Malaysia and country j both belong to the same bilateral/regional trade agreement and zero otherwise	World Trade Organization's website and Malaysia's International Trade and Industry Ministry (MITI) annual report (various issues)
	$EmbHCom_{ijt}$: Malaysia's embassy/high commission /consulate office abroad (dummy variable). Value 0 if Malaysia does not have any embassy/high commission /consulate office in any certain country. The value 1 indicates that Malaysia has embassy/high commission / consulate office in its trading partners country.	Malaysia's Ministry of Foreign Affairs (KLN) Website and via email from KLN's officers

In this analysis, the Ordinary Least Square (OLS) method is used as method of estimation. In addition, to ensure the results are robust, an alternative or additional method is applied using Heckman Selection Model. The reasons why Heckman Selection Model is applied here are the inability of OLS method in capturing zero trade values and the fact that many recent studies which apply Gravity Model has used Heckman Selection Model as method of estimation (Linders & Groot, 2006; Tran et al., 2012; Shepherd, 2012; Rafiq Idris, 2016; Rafiq Idris et al., 2016).

Heckman Selection Model has been used in various recent studies for its ability in capturing zero trade flow which has become an issue in gravity model regression when using OLS method. Furthermore, a sensitivity analysis is undertaken using Heckman Selection Model to assess to the impact of Foreign Service office on Malaysia's export. Data for the regression in sensitivity analysis is cut into half, on which only data from year 2000 to 2010 being used.

Based on the Table 1, it shows that embassy/high commission/consulate offices abroad play a significant role in determining Malaysia's export to the rest of the world. The value of coefficient in the first regression (column I) implies that each establishment of embassy/high commission office abroad can be associated at least an increase in Malaysia's export by 139 percent.

For the alternative method using Heckman Selection Model, the results in column II confirm that Foreign Service play significant role in determining Malaysia's export. Based on the findings, it shows that the creation of an embassy/high commission is associated with at least an increase of Malaysia's export of 1.48 times. Moreover, the sensitivity analysis findings shown in column III confirm the results when using the OLS and Heckman Selection Model with 21 years period of observation. It indicates that the opening of each embassy/high commission can be associated with the increase of Malaysia's export by 1.7 times. In terms of coefficient value, the finding in this study is not too big compared to the results found in the work of Rose (2007) when he linked exports from 22 important countries to 200 destination countries. Rose (2007) study found that the creation of an embassy can be associated with the increase of export of 120 percent.

5 Findings

In this section, the impact of all three estimation is reported together. The findings based on the OLS estimation method is presented in column I below, while the results for Heckman Selection Model for both the robustness check and sensitivity analysis are at column II and III below respectively.

Table 2 regression results

Estimation method:	OLS (I)	Heckman Selection Model (II)	Heckman Selection Model (Sensitivity Analysis) (III)
Dependent variable:	Total export	Total export	Total export
Independent variable:			
ln Distance	-0.934*** (0.064)	-0.926*** (0.173)	-0.894*** (0.166)
Abs(lnYPC _i - lnYPC _j)	-0.294*** (0.031)	-0.313*** (0.085)	-0.266*** (0.089)
lnY _i Y _j	0.688*** (0.023)	0.618*** (0.112)	0.641*** (0.098)
ln(N _i N _j)	0.492*** (0.053)	0.622** (0.264)	0.626** (0.246)
FTA	0.768*** (0.129)		
Bilateral Exchange Rate	-0.046*** (0.011)		
EmbHCom	0.873*** (0.084)	0.909*** (0.234)	0.995*** (0.302)
Constant	-18.051*** (0.859)	-16.632*** (3.5)	-18.496*** (3.056)
Observation:	3597	3677	2026
R-Squared:	0.673		
Root MSE:	1.858		
Censored observation		80	25

6 Concluding Remarks

Each embassy/high commission office creation abroad can be associated with significant increase in Malaysia's export for the period under observation in this study. However, are the gains from trade creation are enough to justify the cost of opening or running an embassy abroad? Embassy/high commission/consulate offices must be productive and play its role as export promotion agent especially for countries on which Malaysia yet to have its MATRADE office.

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APPENDIX 1

Malaysia's Foreign Mission Offices

Country	Embassy/High Commission/Consulate Office Abroad
Algeria	Embassy of Malaysia in Algiers
Argentina	Embassy of Malaysia in Buenos Aires
Australia	1. High Commission of Malaysia, Canberra 2. Consulate General Office in Melbourne 3. Consulate General of Malaysia, Western Australia
Austria	Embassy of Malaysia, Vienna
Bahrain	Embassy of Malaysia in the Kingdom of Bahrain
Bangladesh	High Commission of Malaysia in Dhaka
Belgium	Embassy of Malaysia, Brussels
Bosnia	Embassy of Malaysia, Sarajevo
Brazil	Embassy of Malaysia, Brasilia
Brunei	High Commission of Malaysia, Bandar Seri Begawan
Cambodia	Embassy of Malaysia, Phnom Penh
Canada	1. Consulate General of Malaysia, Vancouver 2. High Commission of Malaysia, Ottawa
Chile	Embassy of Malaysia, Santiago
China	1. Consulate General of Malaysia, Guangzhou, 2. Consulate General of Malaysia, Hong Kong 3. Consulate General of Malaysia, Kunming 4. Consulate General of Malaysia, Shanghai 5. Embassy of Malaysia, Beijing
Croatia	Embassy of Malaysia, Zagreb
Cuba	Embassy of Malaysia, Havana
Czech	Embassy of Malaysia, Prague
Egypt	Embassy of Malaysia, Cairo
Fiji	High Commission of Malaysia, Suva
Finland	Embassy of Malaysia, Helsinki
France	Embassy of Malaysia, Paris
Germany	1. Consulate General of Malaysia, Frankfurt 2. Embassy of Malaysia, Berlin
Ghana	High Commission of Malaysia, Accra
Guinea	Embassy of Malaysia, Conakry
Hungary	Embassy of Malaysia, Budapest
India	1. Consulate General of Malaysia, Chennai 2. Consulate General of Malaysia, Mumbai 3. High Commission of Malaysia, New Delhi

Indonesia	1. Consulate General of Malaysia, Medan 2. Consulate of Malaysia, Pekan Baru
	3. Consulate of Malaysia, Pontianak 4. Embassy of Malaysia, Jakarta
	5. Permanent Mission of Malaysia to ASEAN, Jakarta
Iran	Embassy of Malaysia, Tehran
Ireland	Embassy of Malaysia, Dublin
Italy	Embassy of Malaysia, Rome
Japan	Embassy of Malaysia, Tokyo
Jordan	Embassy of Malaysia, Amman
Kazakhstan	Embassy of Malaysia, Astana
Country	Embassy/ High Commission/Consulate
Kenya	High Commission of Malaysia, Nairobi
Kuwait	Embassy of Malaysia, Kuwait
Laos	Embassy of Malaysia, Vientiane
Lebanon	Embassy of Malaysia, Beirut
Libya	Embassy of Malaysia, Tripoli
Mexico	Embassy of Malaysia, Mexico City
Morocco	Embassy of Malaysia, Rabat
Myanmar	Embassy of Malaysia, Yangon
Namibia	High Commission of Malaysia, Windhoek
Nepal	Embassy of Malaysia, Kathmandu
Netherlands	Embassy of Malaysia, The Hague
New Zealand	High Commission of Malaysia, Wellington
Nigeria	High Commission of Malaysia, Abuja
North Korea	Embassy of Malaysia, Pyongyang
Oman	Embassy of Malaysia, Muscat
Pakistan	1. Consulate General of Malaysia, Karachi 2. High Commission of Malaysia, Islamabad
Papua New Guinea	High Commission of Malaysia, Port Moresby
Peru	Embassy of Malaysia, Lima
The Philippines	1. Consulate General of Malaysia, Davao City 2. Embassy of Malaysia, Manila
Poland	Embassy of Malaysia, Warsaw
Qatar	Embassy of Malaysia, Doha
Republic of Korea	Embassy of Malaysia, Seoul
Romania	Embassy of Malaysia, Bucharest
Russian Federation	Embassy of Malaysia, Moscow

Saudi Arabia	Consulate General of Malaysia, Jeddah
	Embassy of Malaysia, Riyadh
Senegal	Embassy of Malaysia, Dakar
Serbia	Embassy of Malaysia, Belgrade
Singapore	High Commission of Malaysia, Singapore
South Africa	High Commission of Malaysia, Pretoria
Spain	Embassy of Malaysia, Madrid
Sri Lanka	High Commission of Malaysia, Colombo
Sudan	Embassy of Malaysia, Khartoum
Sweden	Embassy of Malaysia, Stockholm
Switzerland	1. Embassy of Malaysia, Berne 2. Permanent Mission of Malaysia To The United Nations (UN), Geneva
Syria	Embassy of Malaysia, Damascus
Taiwan	Malaysian Friendship and Trade Centre, Taipei
Thailand	1. Consulate General of Malaysia, Songkhla 2. Embassy of Malaysia, Bangkok
Timor Leste	Embassy of Malaysia, Dili
Turkey	Embassy of Malaysia, Ankara
Country	Embassy/ HighCommission/ Consulate
Turkmenistan	Embassy of Malaysia, Ashgabat
Ukraine	Embassy of Malaysia, Kiev
UAE	1. Consulate General of Malaysia, Dubai 2. Embassy of Malaysia, Abu Dhabi
UK	High Commission of Malaysia, London
US	1. Consulate General of Malaysia, Los Angeles 2. Consulate General of Malaysia, New York
	3. Embassy of Malaysia, Washington 4. Permanent Mission of Malaysia to the United Nations (UN), New York
Uzbekistan	Embassy of Malaysia, Tashkent
Venezeula	Embassy of Malaysia, Caracas
Vietnam	1. Consulate General of Malaysia, Ho Chi Minh City 2. Embassy of Malaysia, Hanoi
Yemen	Embassy of Malaysia, Sana'a
Zimbabwe	Embassy of Malaysia, Harare

Source: Malaysia's Foreign Affairs website