

The Potential Benefit of Road Connectivity with Kalimantan from International Trade Perspective: The Effect of Cultural Affinity

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Abstract

In 2015, during the 27th ASEAN Summit in Kuala Lumpur, ASEAN Leaders announced for the establishment of the ASEAN Economic Community (AEC). For that purpose, an ASEAN Community Vision 2025 and the ASEAN Community Blueprints 2025 are being announced where it is being targeted for the period 2016-2025 and are intended to establish the ASEAN Political-Security Community, the ASEAN Economic Community and the ASEAN Socio-cultural Community. In this regard, will AEC further strengthen Sabah-Kalimantan trade relations? In relation to this, there was a proposal of establishing road connectivity between Sabah and North Kalimantan, where there was an idea to connect Serudung and Simanggaris via road. This indeed has a potential to add impetus for greater economic integration between Sabah and North Kalimantan under the framework of AEC. This study examines the effect of cultural affinity on Sabah's export econometrically, based on Sabah's 16 years of trade experience with each and every country of the world using gravity model. The finding of the study indicates that cultural affinity has positive effect on Sabah's export.

Keywords: *Sabah-Kalimantan road connectivity, export, cultural affinity*

1 Introduction

Sabah and North Kalimantan being a state and province under Malaysia and Indonesia respectively are two areas which are neighboring and have been integrated via ASEAN Free Trade Agreement (AFTA) and now ASEAN Economic Community. Historically, both are connected through trade and people to people relations which has been ongoing for hundreds of years. Both have some similarities in terms of language and culture at least for certain ethnic groups.

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In 2015, during the 27th ASEAN Summit in Kuala Lumpur, ASEAN Leaders announced for the establishment of the ASEAN Economic Community (AEC). It is a deeper form of economic integration, in addition to the ASEAN Free Trade Agreement (AFTA) which was signed in 1992. In AFTA, the aim among others is to gradually remove or reduce trade barriers. In AEC, the aim is to have freer movement of skilled labors, investment and capital among ASEAN countries.

In this regard, will AEC further strengthen Sabah-Kalimantan trade relations? In relation to this, there was a proposal of establishing road connectivity between Sabah and North Kalimantan, where there was an idea to connect Serudung and Simanggaris via road. This indeed has a potential to add impetus for greater economic integration between Sabah and North Kalimantan under the framework of AEC. This study examines the effect of cultural affinity on Sabah's export econometrically, based on Sabah's 16 years export data to each and every country of the world using gravity model.

2 Literature Review

This section briefly highlight studies which are related to Sabah-Kalimantan economic relations and studies which attempted to study the effects of cultural affinity on trade. On studies related to Sabah-Kalimantan economic relations, some studies are found. To mention a few, Asian Development Bank (2014) has examined the prospects for interconnections between the Borneo and Mindanao power systems. One of the areas covered was to evaluate the Enclave Project for Kalut Exports to Sabah. The study suggests that Kalimantan Electricity Development Planning (PLN) proposal which is to invest in a large hydro or coal fired station in Kalut aimed for export to West Sabah need to be examined more carefully. The study highlighted that from Sabah's perspective, the project should be compared with the option to develop various renewable resources including geothermal, biomass and solar power. Another earlier report on road connectivity from the Indonesia's perspective has highlighted that the idea for road connectivity is strategically important to the cross-border and ASEAN highways connecting East Kalimantan and Sabah (Asian Development Bank, 2005). The study of Rafiq Idris (2017) on the effect of common border (via road connectivity with Kalimantan) looking from Malaysia's experience indicates that the effect is positive.

On study related to the effects of cultural affinity on trade, few are being highlighted here. For instance, the work of Yamarik and Ghosh (2005) when estimated various variables in Gravity Model have also included common language as an important variable which may imply cultural affinity. The study found common language, common border, colonial ties, an open trade policy, remoteness, and greater differences in population density among others are positively linked to trade. The study of Rose (2004) which assessed the impact of becoming member of WTO on trade has included common language as well. The findings among others show that countries that have common language trade more. Many past studies have indicated the relationship is positive such as the one by Frankel and Rose (1998).

Generally, there are limited studies which have attempted to assess the impact of Sabah-Kalimantan road connectivity from Sabah’s perspective. This study shall fill in the literature gap by providing an estimate of cultural affinity based on Sabah’s experience.

3 Methodology

The study uses gravity model to assess the impact of cultural affinity on Sabah’s export. Since there is no road connecting Sabah and Kalimantan, the study estimates the effect of cultural affinity on Sabah’s export. With cultural and language similarities which are due to few common ethnicities in these two areas, what is the the effect on Sabah’s export? This paper estimates the impact of cultural affinity in general on export looking at Sabah’s experience.

Equation (1) is used to assess the effect of cultural affinity on Sabah’s’s export:

$$\ln(XS_{ijt}) = \beta_0 + \beta_1 \ln D_{ij} + \beta_2 \ln(Y_i Y_j)_t + \beta_3 \ln(N_i + N_j)_t + \beta_4 \ln E_{ijt} + \beta_5 FTA_{ijt} + \gamma CA_{ijt} + \epsilon_{ijt} \quad (1)$$

where in equation (1) subscript i denotes the exporter (Malaysia) while j denotes the importer. In addition $\ln(\cdot)$ denotes the natural logarithm operator. Table 1 describes the variables. The data are obtained from several sources such as United Nations Commodity Trade (2017), Geobytes (2017) websites, World Bank (2017), Heston, Summers and Aten.

Table 1: Data and source

Type Of Variables	Data	Source
Dependent Variable $\ln XM_{ijt}$	Natural log of annual exports of Sabah to country <i>j</i> (involving 182 countries), in US\$	Department of Statistics, Malaysia, (various issues)
Independent Variables $\ln D_{ij}$	the distance between country <i>i</i> and country <i>j</i> in natural logarithmic form (capital city distance in kilometer)	Geobytes (2017) websites

Type Of Variables	Data	Source
$\ln(Y_i Y_j)_t$	GDP of country <i>i</i> and <i>j</i> in multiplicative and logarithmic form (in real US\$)	World Bank (2017) and Department of Statistics, Malaysia, (various issues)
$\ln(N_i+N_j)_t$	the sum of population in country <i>i</i> and <i>j</i> in logarithmic form	World Bank (2017) and Department of Statistics, Malaysia, (various issues)
$\ln E_{ijt}$	Bilateral exchange rate. Trading partner's units of currency that can be purchased by one RM	World Bank (2017) and Currency Converter Website
FTA_{ijt}	Dummy variable of FTA. The value is unity if country <i>i</i> and country <i>j</i> both belong to the same bilateral/regional trade agreement and zero otherwise	World Trade Organization's website, Malaysia's International Trade and Industry Ministry (MITI) various annual report (various issues)
CA_{ijt}	is a binary variable which is unity if <i>i</i> and <i>j</i> have similarities in culture	

With 16 years of observation from 2000 to 2016, regression analysis involving Sabah's export data with 182 countries are being undertaken. Two estimation method are being used which are namely the Ordinary Least Square Method and Heckman Selection Model. The coefficient of interest in this study is cultural affinity, where countries that have communities with similar language and culture are taken into account. The countries identified as having common culture are Brunei, Philippines and Indonesia. The finding of this study may provide additional justification together with other factors, whether to have or not to have road with North Kalimantan.

4 Results

The results in table 2 show that cultural affinity has positive and significant association with Sabah's export for the period under investigation. The results are similar using two estimation method which are the OLS method and Heckman Selection Model.

Table 2: Results

Dependent variable: Log Export	Total Export	Total Export (Heckman Selection)
Independent variables:		
Ln Distance	-3.01*** (0.166)	-2.529*** (0.184)
CA	3.679*** (0.791)	2.745*** (0.584)
$\ln Y_i Y_j$	1.633*** (0.055)	1.279*** (0.103)
$\ln(N_i + N_j)$	0.515*** (0.117)	0.588*** (0.092)
$\ln E_{ijt}$	- 0.342*** (0.037)	-0.231*** (0.036)
Constant	-49.5*** (2.521)	-36.706*** (3.881)
Observation	2855	2855
R-Squared	0.524	
Root MSE	5.09	

The effect of cultural affinity on export in this study is consistent with many past studies such as in Rose (2004), Yamarik and Ghosh (2005) and Frankel and Rose (2004) where the studies used common language as one of the variables. A common language which is associated with common culture is observed to reduce translation expenditure and hence transaction costs. This leads to higher export.

5 Conclusion

Road connectivity with North Kalimantan where it involves population who may

share some similarities in terms of culture has the potential of bringing many economic benefits. The regression results indicate that from Sabah's experience,

cultural affinity has increase Sabah's export. With road connectivity with North Kalimantan, due to common border and cultural affinity, it is projected that Sabah's export will further increase. Cultural affinity lowers transaction cost such as translation cost and that makes communication to be easier.

Road connectivity with North Kalimantan has the potential of helping Sabah's exporters/producers to achieve economies of scale due to larger market size, lowering logistic costs, helping to improve Sabah's micro, small and medium enterprises, encouraging investment and down streaming activities among others.

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