

**A GRAVITY MODEL BETWEEN MALAYSIA AND SELECTED EUROPEAN  
COUNTRIES**

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**By**

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## ABSTRACT

*This study applied the Gravity Model to estimate the factors influence the trade and assess the trade potential between Malaysia and selected major trading partners of the EU countries. The model was estimated with a sample of five selected EU countries: Germany, United Kingdom, Netherlands, Belgium and France. A panel data analysis was used to disentangle the time invariant country-specific effect, and to capture the relationship between the relevant variables across time. The findings showed that the random effect was preferred over the fixed effect specification in the Gravity Model. Additionally, the variables, namely the gross domestic product, gross domestic products per capita, distance, and exchange rate were found to be the significant determinants in the bilateral trade flows. The trade potential is also found yet to be explored fully. Based on these findings, various policy implications and recommendations are suggested.*

**Keywords:** Gravity Model, Bilateral trade, GDP, Exchange rate and Panel data.

## ABSTRAK

*Kajian ini mengguna pakai Model Graviti untuk menganggarkan faktor mempengaruhi perdagangan dan menilai potensi perdagangan antara Malaysia dan rakan dagangan utama terpilih di negara-negara EU. Model ini dianggarkan dengan menggunakan sampel lima negara EU yang dipilih: Jerman, United Kingdom, Belanda, Belgium dan Perancis. Satu analisis data panel digunakan untuk menghuraikan kesan berubah khusus ke atas negara ketika itu, dan untuk menangkap hubungan antara pemboleh ubah yang berkaitan di seluruh masa. Dapatan kajian menunjukkan bahawa kesan rawak dipilih berbanding spesifikasi kesan yang tetap dalam Model Graviti. Selain itu, pemboleh ubah, iaitu keluaran dalam negara kasar, produk negara kasar per kapita, jarak, dan kadar pertukaran didapati penentu penting dalam aliran perdagangan dua hala. Potensi perdagangan juga didapati belum diterokai sepenuhnya. Berdasarkan penemuan ini, pelbagai implikasi dan cadangan dasar dicadangkan.*

**Kata kunci:** Model gravity, Hubungan dua hala, KDNK, kadar tukaran dan panel data.

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## **LIST OF ABBREVIATION**

|           |   |
|-----------|---|
| ECSC      | European Coal and Steel Community                 |
| EU        | European Union                                    |
| EUD       | Euro Dollar                                       |
| FDI       | Foreign Direct Investment                         |
| GDP       | Gross Domestic Product                            |
| GDPi      | Gross Domestic Product per Capita                 |
| GNP       | Gross Nation Product                              |
| J.E.C     | Malaysia-Germany Joint Committee                  |
| MDBC      | Malaysia Dutch Business Council                   |
| MFCCI     | Malaysia French Chamber of Commerce and Industry  |
| MGSC      | Malaysia-German Chamber of Commerce and Industry  |
| RM        | Ringgit Malaysia                                  |
| UBIFRANCE | France Trade Commission in Malaysia               |
| UKTI      | United Kingdom and Investment                     |
| UNCTAD    | United Nation Conference on Trade and Development |
| US        | United States                                     |

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.0 Introduction**

The European Union (EU) has been one of Malaysia's main trading partner besides the United States and the Republic of China. Malaysia's ranking of trading partner placed the EU in the third rank. Prior to the independence of Malaysia, the relationship between Malaysia and these countries was informal and unofficial. The EU colonial power came to Malaysia (then The Federation of Malaya) via the Portuguese, Dutch and the British since the colonial era in the 15<sup>th</sup> century.

Malaysia and the EU had forged an official trade relation since 1980. This formal relationship was set off by the 1980 European Commission-Asian Agreement, which was signed by Malaysia and the EU. Despite the important role of the EU in Malaysian economy, there were limited working papers and journals analyzing the trade between Malaysia and the EU countries. Thus, an in-depth study of the bilateral trade between the EU-Malaysia is deemed interesting and vital.

This paper applied the Gravity Model to study the bilateral trade between Malaysia and the selected EU countries. The EU countries were selected based on the top 30 trading partners of Malaysia. As stated earlier the EU is Malaysia's third largest trading partner internationally. The EU has 28 single markets that represent 28 member countries.

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