



**CAUSALITY BETWEEN ENERGY CONSUMPTION AND ECONOMIC GROWTH IN
MALAYSIA**

MUHAMAD HASBULLAH BIN ROSLAN

2013613096

**BACHELOR OF BUSINESS ADMINISTRATION
WITH HONOURS (BUSINESS ECONOMIC)
FACULTY OF BUSINESS MANAGEMENT
UNIVERSITI TEKNOLOGI MARA
KOTA KINABALU SABAH**

JUNE 2016

ACKNOWLEDGEMENTS

Assalammualaikum w.b.t,

First and foremost, I would like to express my gratitude towards Allah SWT the Almighty for shower His blessing from the beginning until I had completing my project paper in which need to fulfill the graduation requirement of Bachelor of Business Administration (Hons) Economy.

My deepest appreciation and warmest gratitude to my advisor, Madam Herniza Roxanne Marcus and my second examiner Sir Wahi Ismail for all the guidance and advise along this journey. Thank you for nurturing me with your patient and kindness. I would never have possessed the capacity to complete my project paper without all the direction, advices and support from my advisor and my second examiner. Their kindness is much indeed appreciated.

Last but not least, I would like to thank my parents and family, as well as friends for all the support throughout my study. Thank you for all the consent and love.

Thanks and Best Regards.

.....

(MUHAMAD HASBULLAH BIN ROSLAN)

LIST OF CONTENTS

	Page
TITLE PAGE	i
DECLARATION OF ORIGINAL WORK	ii
LETTER OF SUBMISSION	iii
ACKNOWLEDGEMENT	iv
LIST OF CONTENTS	v
ABSTRACT	vi
LIST OF TABLES	vii
CHAPTER 1 INTRODUCTION	
1.0 Background of Study	1
1.1 Malaysian Economy	3
1.2 Malaysian Energy Consumption and Economic Growth	4
1.3 Problem Statement	5
1.4 Research Objectives	6
1.5 Scope and Limitation	7
1.6 Organization of Thesis	8
CHAPTER 2 LITERATURE REVIEW	
2.0 Introduction	9
2.1 Relationship Between Energy Consumption and Economic Growth	10
2.2 Relationship Between Electricity Consumption and Economic Growth	11
2.3 Relationship Between Natural Gas Consumption Economic Growth	12
2.4 The Relationship Between Petroleum Consumption and Economic Growth	13
2.5 Summary of the Empirical Literatures	14
2.6 Conclusion	21

CHAPTER 3 METHODOLOGY AND DATA

3.0	Introduction	22
3.1	Model Specification	23
3.2	Data and Variables Description	24
3.2.1	Gross Domestic Product (GDP) per capita	24
3.2.3	Gross Domestic Product (GDP) annual growth rate	24
3.2.3	Total Petroleum Consumption	25
3.2.4	Total Natural Gas Consumption	25
3.3.5	Total Electricity Consumption	25
3.3	Methodology	
3.3.1	Transformed Data	26
3.3.2	Unit Root Test (ADF)	26
3.3.3	The Johansen Cointegration Test	27
3.3.4	Toda Yamamoto Approach	28
3.3.5	Granger Causality Test	29
3.4	Hypothesis Testing	30
3.5	Conceptual Framework	31
3.6	Conclusion	32

CHAPTER 4 DATA ANALYSIS AND RESULTS

4.0	Introduction	33
4.1	Unit Root Test Results	33
4.2	Johansen Cointegration	34
4.3	Toda Yamamoto Test Results	36
4.4	Granger Causality Test	38
4.5	Conclusion	41

CHAPTER 5 CONCLUSION AND RECOMMENDATION

5.0	Introduction	42
5.1	Conclusion	42

ABSTRACT

The main purpose of this study is to find out the relationship or causality between energy consumption and economic growth in Malaysia from 1980 to 2014. This study is using time series data that be collected from Malaysian Energy Information Hub. The independent variable that be used is gas consumption, electricity consumption and crude oil consumption for dependent variable is GDP per capita that be used. The analysis of the data started with log all the variable after that follow by unit root test to test for the stationary and then applying cointegration test. The next analysis of data is Toda-Yamamoto Approach to solve the problem of invalid asymptotic critical value. Lastly granger to know how much of the current Y can be explained by past values of X and then to see whether adding lagged values of X can improve the explanation. The result founds that no causality between energy consumption consists gas, oil and electricity consumption and economic growth in Malaysia.