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**EFFECT OF EDUCATION INFRASTRUCTURE ON RURAL
DEVELOPMENT IN KATSINA STATE NIGERIA**



**DOCTOR OF PHILOSOPHY
UNIVERSITI UTARA MALAYSIA**

**EFFECT OF EDUCATION INFRASTRUCTURE ON RURAL
DEVELOPMENT IN KATSINA STATE NIGERIA**



**A Thesis Submitted to Ghazali Shafie School of Government
Universiti Utara Malaysia
in Fulfillment of the Requirement for the Degree of Doctor of Philosophy
Universiti Utara Malaysia**

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ABSTRACT

The purpose of this study was to examine the effect of education infrastructure on rural development by focusing on poverty, employment, agricultural productivity, and healthcare. Additionally, the study also the moderating effect of Non-Governmental Organization (NGO) on the relationship between education infrastructure and rural development in Katsina State Nigeria. This study adopted a cross-section survey design and the data for the study was mainly from primary source through questionnaire. Human capital theory was adopted as the underpinning theory of the study, and based on a theoretical review, a research model was proposed that examines the relationship between the variables. Eight hypotheses were postulated that tested the effect of education infrastructure and the moderating effect of NGOs on rural development (comprising poverty, employment, agricultural productivity, and healthcare). The total population of this study was 5,801,485 out of which 384 are taken as the sample size, using Saunders (2007) sampling method. A total of 434 questionnaires was administered to the respondents, out of which 410 was returned accounting for 95 percent rate of returned. A combination of descriptive and inferential statistics was used in analyzing the data collected, using the Statistical Package for Social Science (SPSS) version 23. Multiple regression was used in analyzing the direct relationship between the independent variable and the dependent variable, whereas hierarchical regression was used in analyzing the moderating effect of the moderating variable on the relationship between the independent variable and the dependent variable. The findings of this study revealed that, education infrastructure have a direct significant relationship on rural development relating to employment, agricultural productivity, and healthcare while there was no significant relationship with poverty. Furthermore, the result of the hierarchical regression (moderation test) establishes that NGOs moderate the relationships between poverty, agricultural productivity, and healthcare, but it did not moderate the relationship with employment. Lastly, based on the findings of this study, the theoretical and practical implication, limitations of the study, conclusions, as well as direction for future research were also provided by this study.

Keywords: Rural development, education infrastructure, NGO, poverty, employment, Nigeria

ABSTRAK

Tujuan kajian ini adalah untuk mengkaji kesan infrastruktur pendidikan ke atas pembangunan luar bandar yang memberi tumpuan kepada kemiskinan, pekerjaan, produktiviti pertanian, dan penjagaan kesihatan. Selain itu, kajian ini juga menyiasat kesan penyederhanaan pertubuhan bukan kerajaan (NGO) mengenai hubungan antara infrastruktur pendidikan dan pembangunan luar bandar di Katsina, Nigeria. Kajian ini menggunakan rekabentuk kaji selidik silang dan data untuk kajian ini adalah dari sumber utama melalui soal selidik. Teori modal manusia telah digunakan sebagai teori pendorong dan berdasarkan kajian teori satu modal penyelidikan dicadangkan yang mengkaji hubungan antara pembolehubah. Lapan hipotesis telah dirumuskan untuk menguji kesan infrastruktur pendidikan dan penyederhanaan NGO mengenai pembangunan luar bandar (terdiri dari kemiskinan, pekerjaan, produktiviti pertanian, dan penjagaan kesihatan). Jumlah populasi adalah 5,801,485 di mana 384 diambil sebagai sampel kajian menggunakan kaedah persampelan Saunders (2007). Sebanyak 434 borang soal kaji selidik telah diedarkan yang mana 410 dikembalikan mewakili 95 peratus. Gabungan statistik deskriptif dan inferensial digunakan untuk menganalisis data yang dikumpulkan menggunakan Pakej Statistik untuk Sains Sosial (SPSS) versi 23. Regresi berganda digunakan dalam menganalisis hubungan langsung antara pembolehubah bebas dan pembolehubah bersandar, manakala regresi hierarki digunakan untuk menganalisis kesan penyederhanaan pembolehubah sederhana pada hubungan antara pembolehubah bebas dan pembolehubah yang bersandar. Penemuan kajian ini mendedahkan bahawa, infrastruktur pendidikan mempunyai hubungan langsung yang signifikan ke atas pembangunan luar bandar yang berkaitan dengan pekerjaan, produktiviti pertanian, dan penjagaan kesihatan manakala tiada hubungan yang signifikan dengan kemiskinan. Hasil daripada regresi hierarki (ujian kesederhanaan) membuktikan bahawa NGO menyederhanakan hubungan antara kemiskinan, produktiviti pertanian dan penjagaan kesihatan, tetapi ia tidak menyederhanakan hubungan dengan pekerjaan. Akhir sekali, berdasarkan penemuan kajian ini, implikasi teoretikal dan praktikal, batasan kajian, kesimpulan, serta cadangan untuk penyelidikan masa akan datang juga disediakan dan dibincangkan.

Kata Kunci: Pembangunan luar bandar, infrastruktur pendidikan, NGO, kemiskinan, pekerjaan, Nigeria

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LIST OF ABBREVIATIONS

ADP	Agricultural Development Project
AID	Acquire Immune Deficiency Syndrome
CAP	Common Agricultural Policy
CBO	Community Based Organization
CBWO	Community Based Women Organization
CSDP	Committee for Social Development Project
CSR	Corporate Social Responsibility
DFRRI	Directorate for Food, Road and Rural Infrastructure
DV	Dependent Variable
EFA	Education for All
EU	European Union
FAO	Food and Agricultural Organization
FRN	Federal Republic of Nigeria
GDP	Gross Domestic Product
HIV	Human Immune Virus
HND	Higher National Diploma
IV	Independent Variable
KMO	Kaiser-Myer Olkin
LGA	Local Government Authority
MGD	Millennium Development Goal
MOE	Ministry of Education
MSE	Micro Small Enterprise
NALD	National Agricultural Land Development Authority
NAPEP	National Poverty Eradication Programme
NCE	National Certificate of Education
ND	National Diploma
NEEDS	National Economic and Development Strategy
NGO	Non-Governmental Organization
NPE	National Policy on education
OECD	Organization for Economic Cooperation and Development

PAB	Practical Action Bangladesh
PLS	Partial Least Square
PTF	Petroleum Trust Fund
RDP	Rural Development Programme
SEM	Structural Equation Modelling
SESP	State Education Strategic Plan
SHG	Self Help Group
SPSS	Statistical Package for Social Sciences
TYAGC	Toda-Yamamoto Granger's Causality
UBE	Universal Basic Education
UNDP	United Nation Development Programme
UNESCO	United Nation Education, Social and Cultural Organization
USA	United State of America
USD	United State Dollar



CHAPTER ONE

INTRODUCTION

1.1 Introduction

Rural development which is a subset of national development, encompasses economic, political, and social enhancement. It is a development strategy which focused on how to sustainably enhance the quality of lives of the rural peoples through the provision of basic socio-economic infrastructures like schools, improved agricultural implements, healthcare services, which will subsequently lead to employment generation and poverty reduction. It is also, seen as a strategy for improving rural peoples' livelihood through access to good road, electricity, pipe born water and sanitation facilities (Aref, 2011).—

Rural development has become a focal issue internationally during the past decades, from 1960s to 70s, and through 80s. This era had witnessed the emergence of international organizations at the forefront in initiating and promoting rural development strategies for the less income earning economies. Some of these organizations include, Food and Agricultural Organization (FAO), United Nation Development Programme (UNDP), United Nation Education, Social and Cultural Organization (UNESCO). These international organization in collaboration with some governments of low-income countries, initiate and execute developmental projects in those countries. For example, in Nigeria, the Nigerian government in collaboration with FAO and World Bank funded the

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UUM
Universiti Utara Malaysia

APPENDIX

APPENDIX:A



Dear Respondents

I am a PhD Public management student at the above-named university, currently undertaking a research titled: *The Effect of Education Infrastructure on Rural Development: A Study of Katsina State, Nigeria*”.

This questionnaire is intended to collect data on the above topic for A PhD Certificate.
Matric-900047/2014/15

We need your kind cooperation in filling out the questionnaire by ticking and commenting where necessary.

Finally we assure you of utmost confidentiality with regards to the information you will give us as it only be used for research purposes

Yours Sincerely,

Salisu Ahmed Kakiru

PhD Student

E-mail: salisuahmed18@gmail.com

Mobile: +2348622465 +1014602774

Dr Rozita Bint Arshad

Main Supervisor

E-mail: roz@uum.edu.my

Mobile: +60134899696

General Guidelines for the Survey

1. In most of the questions you are required to tick [√] on the space provided. In the last section, which is the demographic information, you are also to require to choose your response by ticking [√] the appropriate answer.
2. There are no rights or wrong answers. Hence, we would appreciate your honest and complete response to help us understand your views.
3. The questionnaire is divided into 4 sections. You are kindly requested to answer the questions in all the sections please.
4. We would like to re-assure you that the information you give will be treated confidentially.



NOTE: Please note that the questions herein are relate poverty

Section A: Rural Development

The following describe statements about strategic leadership attitudes in your organization. Please indicate the extent to which you agree or disagree with the statements based on the scales provided.

Section A: Rural Development

Section A: Please indicate your opinion as regard the following statement based on scale below

Poverty	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
P1. I earn less than 300 naira per day	1	2	3	4	5
P2. My income is not sufficient to cater for need	1	2	3	4	5
P3. I can't afford three square meals daily	1	2	3	4	5
P4. I can't afford my children school fees	1	2	3	4	5
P5.I use Dung/Wood to cook	1	2	3	4	5
P6.I use coal to cook	1	2	3	4	5
P7.I use cooker to cook	1	2	3	4	5
P8.I don't own a radio	1	2	3	4	5
P9.I don't own a TV	1	2	3	4	5
P10.I don't own a cell-phone	1	2	3	4	5
P11.I don't own a bike	1	2	3	4	5
P12.I don't own a motorbike	1	2	3	4	5
P13.I don't own a refrigerator	1	2	3	4	5
P14.I don't own a car	1	2	3	4	5

Employment: Please indicate your opinion as regard the following statement based on scale below

Employment	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
------------	-------------------	----------	-----------	-------	----------------

EM1.I am a full-time worker	1	2	3	4	5
EM2.I am a part-Time worker	1	2	3	4	5
EM3.I am a managerial worker	1	2	3	4	5
EM4.I am a professional worker	1	2	3	4	5
EM5.I am a construction worker	1	2	3	4	5
EM6.I am a clerical worker	1	2	3	4	5
EM7.I am a craftsman	1	2	3	4	5
EM8.I am a driver	1	2	3	4	5
EM9.I am self-employ in agriculture	1	2	3	4	5
EM10.I am self-employ in mining	1	2	3	4	5
EM11.I am self-employ in construction	1	2	3	4	5
EM12.I am self-employ in transport	1	2	3	4	5
EM13.I am self-employ in manufacturing	1	2	3	4	5
EM14.I am self-employ as a labourer	1	2	3	4	5
EM15.I am self-employ as a Technician	1	2	3	4	5

Agricultural productivity: Please indicate your opinion as regard the following statement based on scale below

Agricultural productivity	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
A1.I have livestock	1	2	3	4	5
A2.I have enough fertilizer to apply in my farm	1	2	3	4	5
A3.I have pesticide for my crop	1	2	3	4	5
A4.I have capital to boost my farm	1	2	3	4	5
A5.I used to attend extension service coaching	1	2	3	4	5
A6.I am a subsistent farmer	1	2	3	4	5
A7. I am a commercial farmer	1	2	3	4	5
A8 I have energy to use in my farm	1	2	3	4	5
A9. I have modern agric implement that I use in my farm	1	2	3	4	5
A10. I have a real estate in my farm	1	2	3	4	5
A11. I have less than an acre of land	1	2	3	4	5

Healthcare: Please indicate your opinion as regard the following statement based on scale below

Healthcare	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
-------------------	--------------------------	-----------------	------------------	--------------	-----------------------

H1. You have terminal disease	1	2	3	4	5
H2. Your child is malnourish	1	2	3	4	5
H3. People in house die early	1	2	3	4	5
H4. your Child received all require number of immunization	1	2	3	4	5
H5. You have access to sanitary	1	2	3	4	5
H6. You have access to portable water	1	2	3	4	5
H7. You have to hospital	1	2	3	4	5
H8. You have access to referral services	1	2	3	4	5
H9. You have Access to drug	1	2	3	4	5
H10. The distance from home to hospital is far	1	2	3	4	5
H11. Ambulance is always available for conveying patient to hospital	1	2	3	4	5
H12. The condition of the healthcare facilities is good	1	2	3	4	5
H13. The medical personnel are competent	1	2	3	4	5
H14. The hospitals has modern equipment	1	2	3	4	5

Section B Educational infrastructure: Please indicate your opinion as regard the following statement based on scale below

Education	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
E1. School buildings is used to facilitate effective dissemination of knowledge	1	2	3	4	5
E2. School library is used to facilitate effective learning and research	1	2	3	4	5
E3. Quality teachers improved the standard of education	1	2	3	4	5
E4. Classes facilitate dissemination of effective knowledge	1	2	3	4	5
E5. School workshop aids students in learn craft work	1	2	3	4	5
E6. School playing ground facilitate physical education	1	2	3	4	5
E7. School furniture facilitate dissemination of effective knowledge	1	2	3	4	5
E8. Electricity facilitate good functioning of a school	1	2	3	4	5
E9. Water point facilitate good	1	2	3	4	5

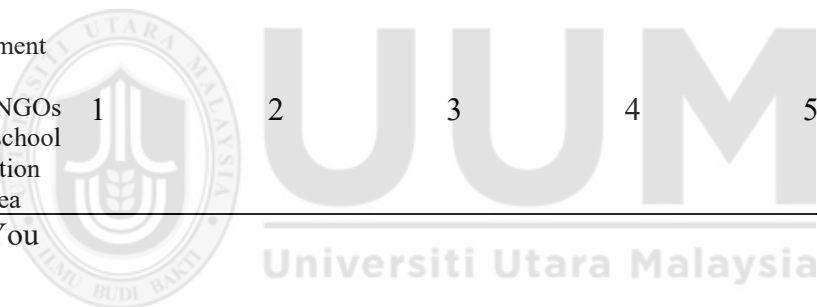
functioning of a school					
E10. Teaching aids facilitate dissemination of effective knowledge	1	2	3	4	5

Section C NGOs: Please indicate your opinion as regard the following statement based on scale below

NGOs	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
N1. There exist local NGO exist in my area	1	2	3	4	5
N2. There exist foreign NGOs in my area	1	2	3	4	5
N3. There exist Religious NGOs in my area	1	2	3	4	5
N4. NGO is perceived in my as development partners	1	2	3	4	5
N5.	1	2	3	4	5
N6. NGO helps in the provision of services in my area	1	2	3	4	5
N6. NGO helps in promoting self-reliance in my area	1	2	3	4	5
N7. NGO helps in empowerment in my area	1	2	3	4	5
N8. NGO helps in improving agricultural productivity via training in my area	1	2	3	4	5
N9. NGOs help in job	1	2	3	4	5

generation through skills acquisition in my area					
N10. NGOs help in improving health status through their services in my area	1	2	3	4	5
N11. NGOs help in clinic construction in my area	1	2	3	4	5
N12. NGOs activities has impacted positively on the rural people	1	2	3	4	5
N13. NGOs contribute in rural development effort	1	2	3	4	5
N14. NGOs help in school construction in my area	1	2	3	4	5

Thank You



Section D: Background information, kindly tick (√) as appropriate.

DMO1: Gender:

Male []

Female []

DMO2: Age:

18 – 25 []

26 – 33 []

34 - 41 []

42 – 49 []

50 and above []

DMO3: Marital Status

Single []

Married []

Divorce []

Widow []

Separated []



DMO4: Educational qualification:

Islamic School []

No School []

Primary Cert []

Secondary []

NCE & Equivalent []

Degree []

Postgraduate Cert []

DMO5: Number of family

- 1-2 []
- 3-5 []
- 6-10 []
- 11-15 []
- 16 and above []

DMO6:Religion

- Islam []
- Christianity []
- Others []

DMO7:Ethnicity

- Hausa []
- Fulani []
- Others []

DMO8:Occupation

- Farmer []
- Civil Servant []
- Business man []
- Private company staff []
- Self-employed []
- Unemployed []



APPENDIX: B

Reliability for all the variables

Poverty

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.845	.846	7

Employment



Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.845	.846	7

Agricultural productivity

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.829	.828	6

Healthcare

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.820	.822	9

Education infrastructure

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.952	.952	10

NGOs

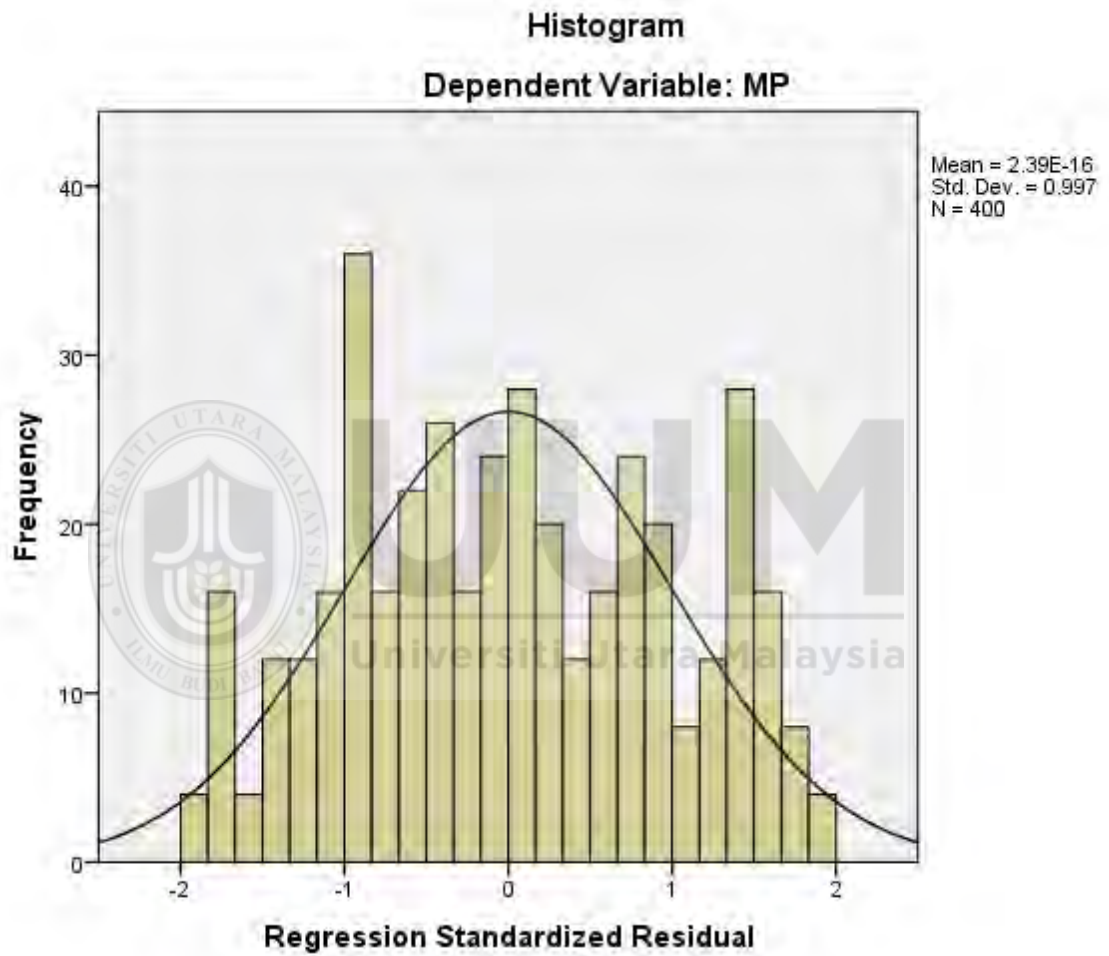
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.952	.952	10

APPENDIX:C

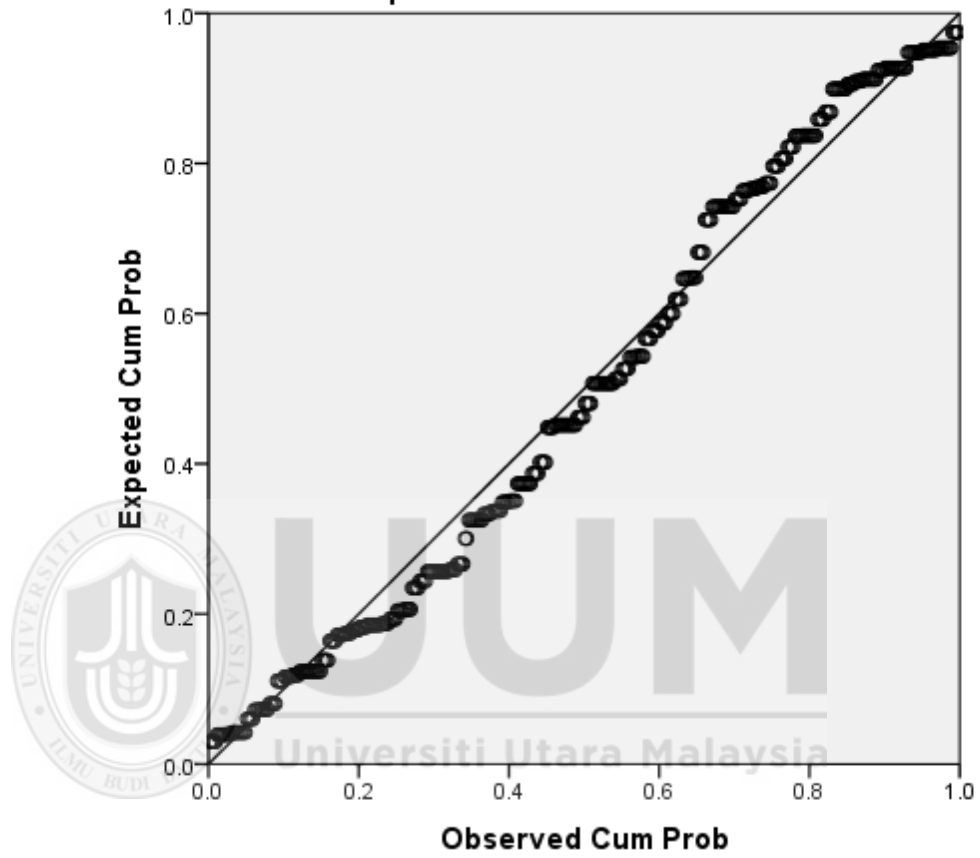
Normality for the dependent variable rural development

Normality for poverty (MP)



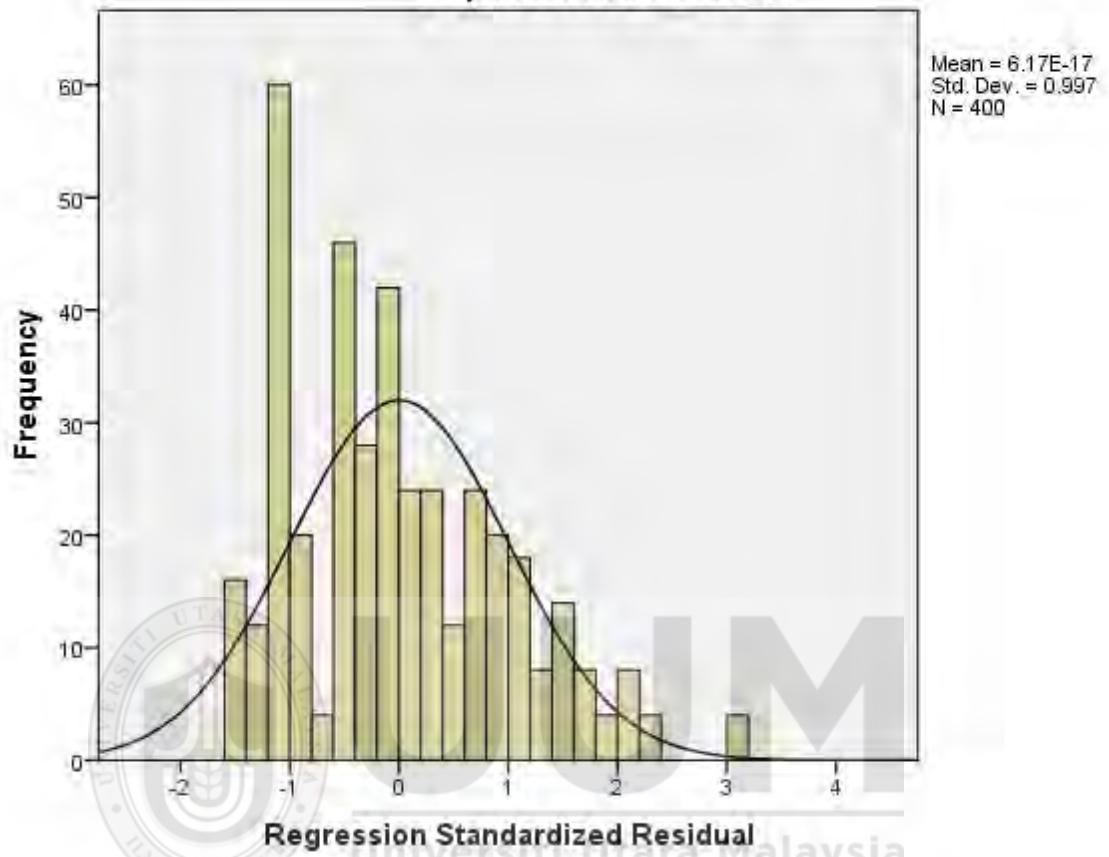
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: MP



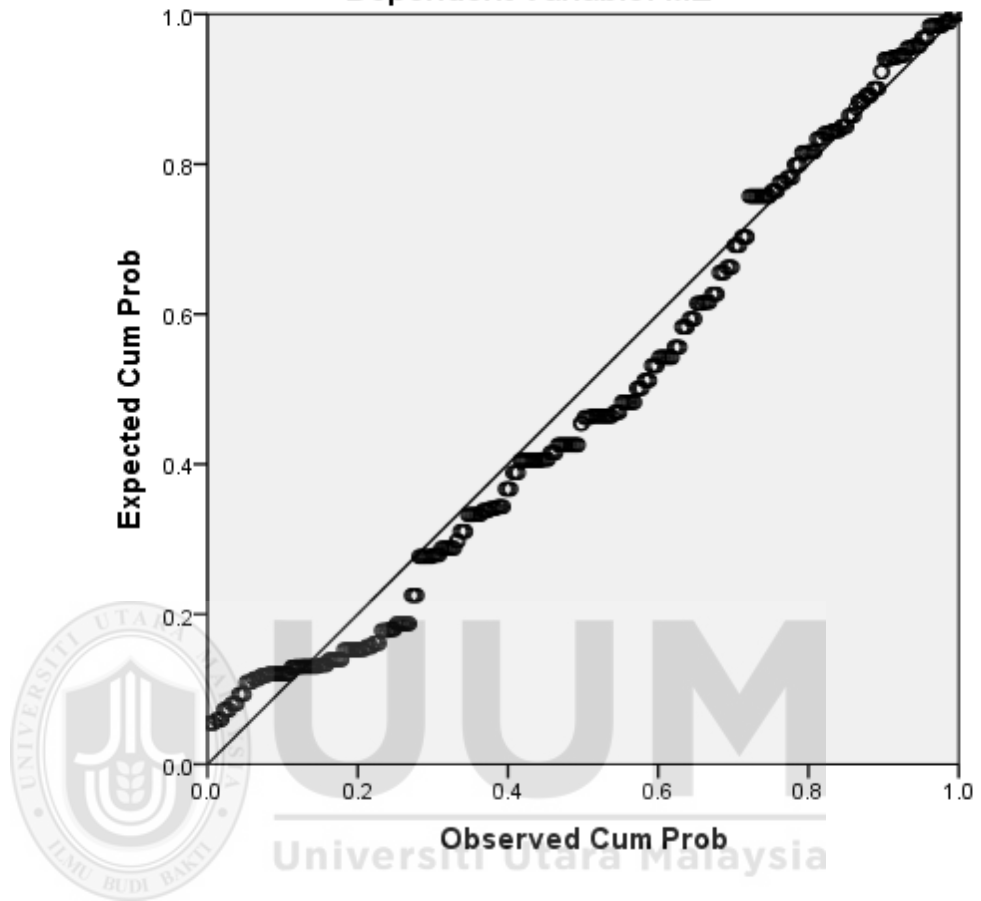
Histogram

Dependent Variable: ME



Normal P-P Plot of Regression Standardized Residual

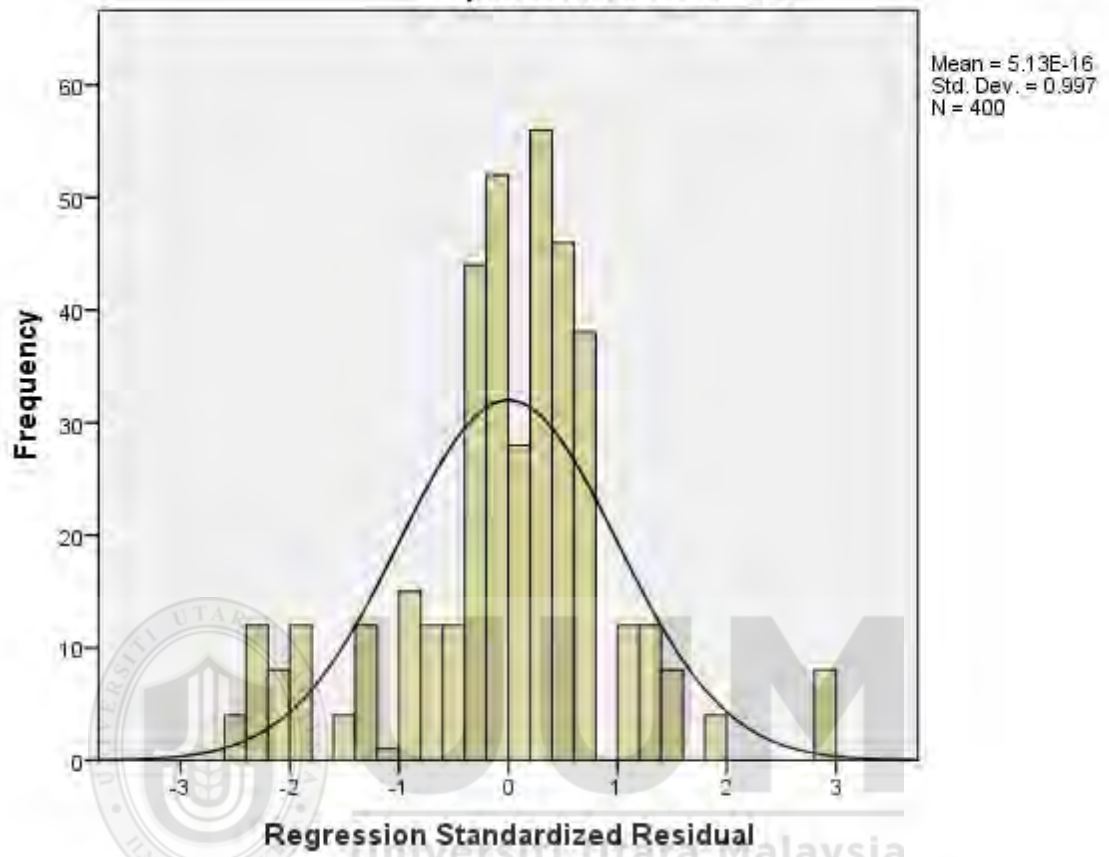
Dependent Variable: ME



Normality for Agriculture

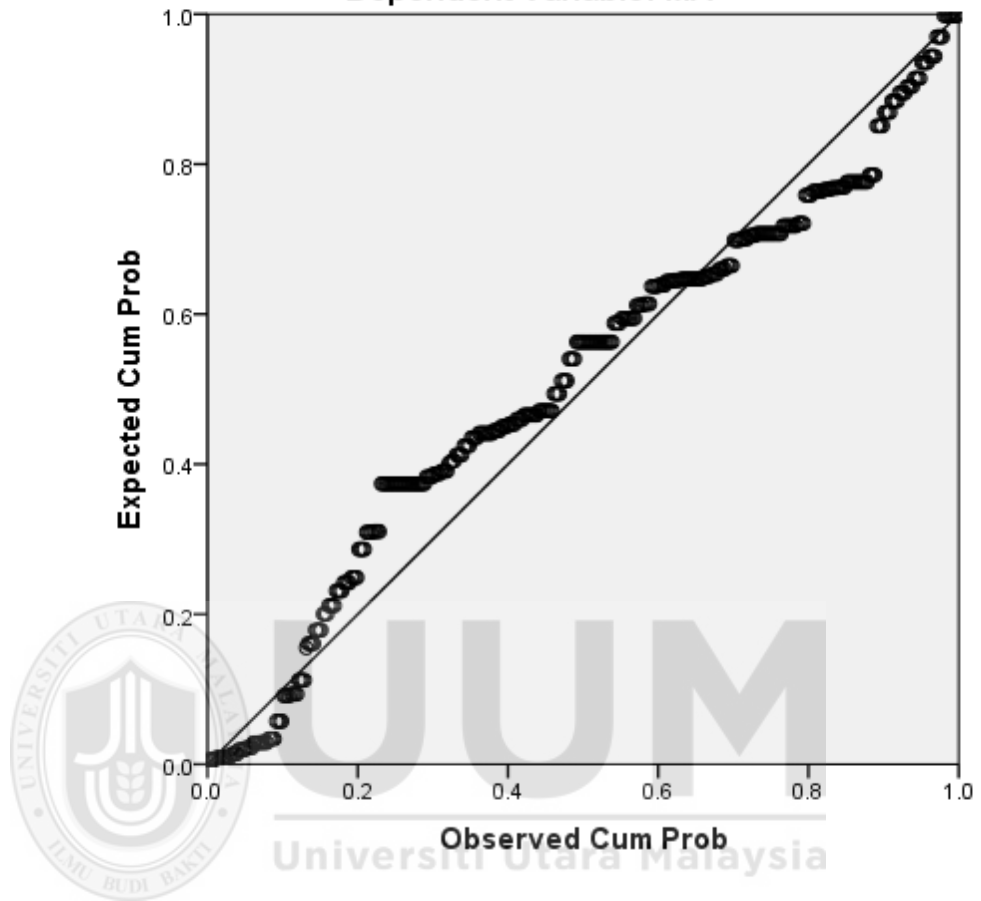
Histogram

Dependent Variable: MA



Normal P-P Plot of Regression Standardized Residual

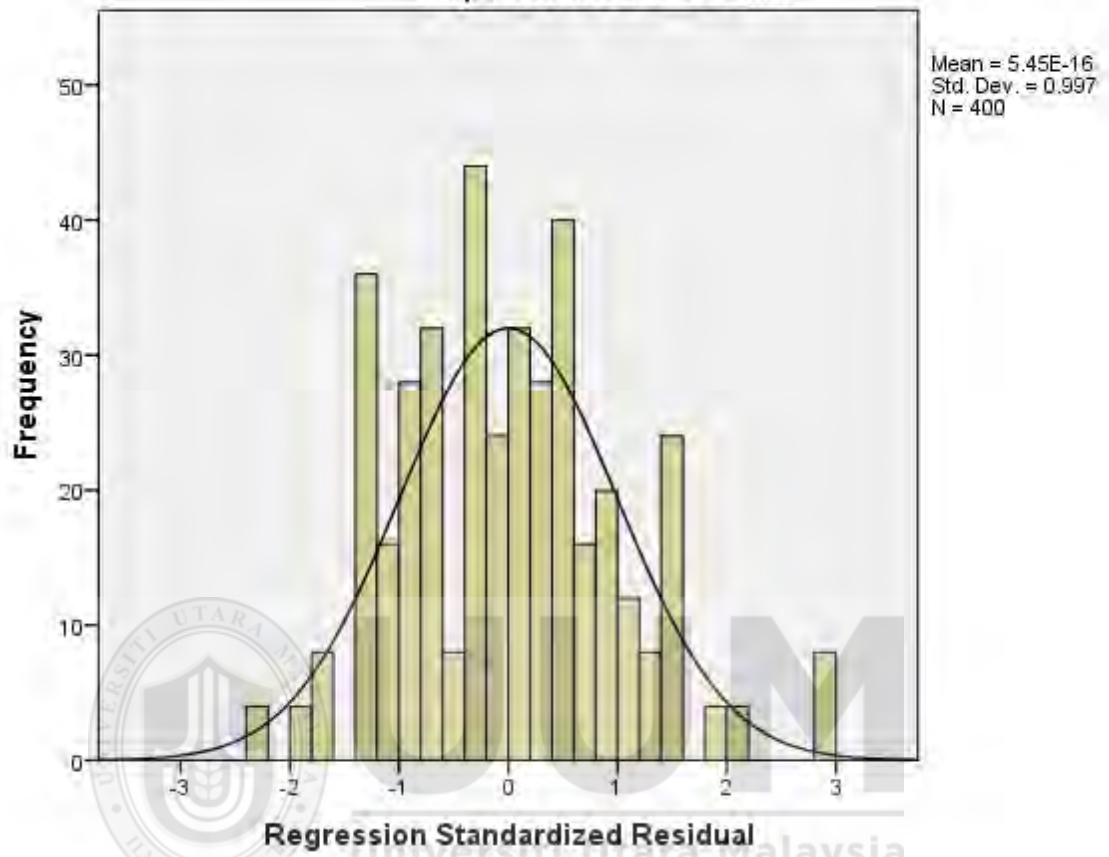
Dependent Variable: MA



Normality for Health

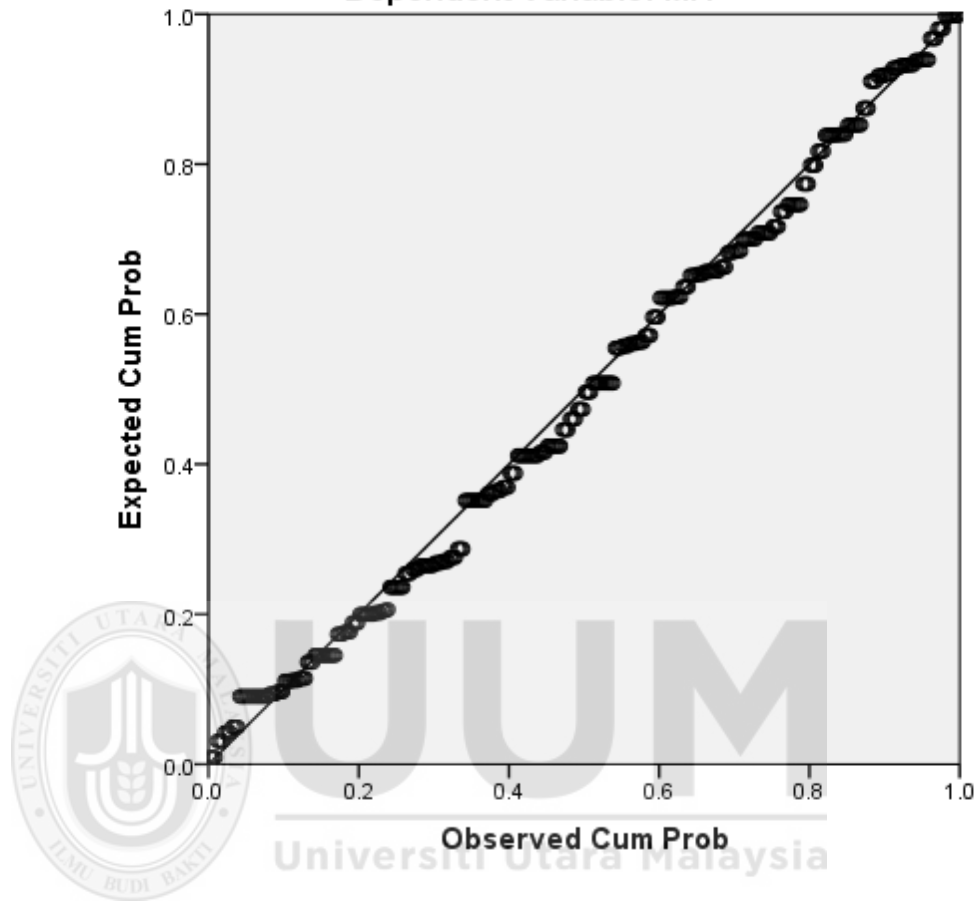
Histogram

Dependent Variable: MH



Normal P-P Plot of Regression Standardized Residual

Dependent Variable: MH



Variables	N	Skewness	Kurtosis
		statistics	
MP	400	.058	-.974
ME	400	.592	-.076
MA	400	-.288	.665

MH	400	.270	.340
MED	400	-2.388	5.434
MN	400	-1.425	1.154
Valid N Listwise	400		



APPENDIX:D

Multiple regression between education infrastructure (independent variable) and poverty, employment, agricultural productivity, healthcare (rural development dependent variables) first Stage

Variables Entered/Removed^a

Mode	Variables Entered	Variables Removed	Method
1	EDU ^b	.	Enter

a. Dependent Variable: Poverty

b. All requested variables entered.



Model Summary

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.037 ^a	.001	-.001	.67912

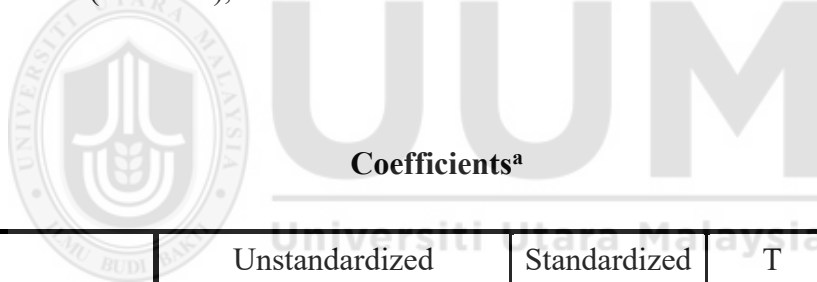
a. Predictors: (Constant), EDU

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.245	1	.245	.531	.466 ^b
	Residual	183.559	398	.461		
	Total	183.804	399			

a. Dependent Variable: Poverty

b. Predictors: (Constant), EDU



Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.279	.169		13.522	.000
	EDU	-.030	.040	-.037	-.729	.466

a. Dependent Variable: Poverty

Employment

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	EDU ^b	.	Enter

a. Dependent Variable: Employment

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.343 ^a	.117	.115	.66742

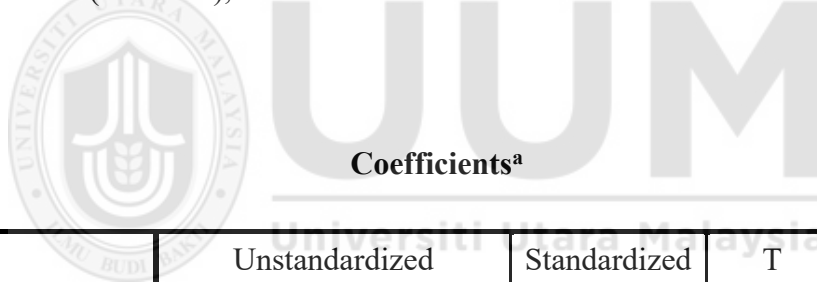
a. Predictors: (Constant), EDU

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.597	1	23.597	52.973	.000 ^b
	Residual	177.289	398	.445		
	Total	200.886	399			

a. Dependent Variable: Employment

b. Predictors: (Constant), EDU



Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.525	.166		9.211	.000
	EDU	.289	.040	.343	7.278	.000

Agricultural Productivity

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	EDU ^b	.	Enter

a. Dependent Variable: Agriculture

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.394 ^a	.155	.153	.86104

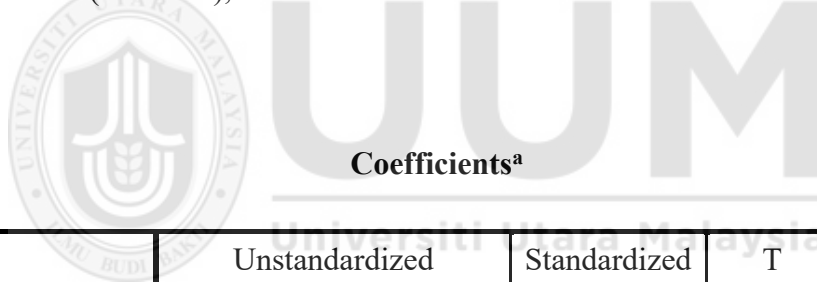
a. Predictors: (Constant), EDU

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54.118	1	54.118	72.995	.000 ^b
	Residual	295.074	398	.741		
	Total	349.191	399			

a. Dependent Variable: Agriculture

b. Predictors: (Constant), EDU



Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.209	.214		5.660	.000
	EDU	.438	.051	.394	8.544	.000

a. Dependent Variable: Agriculture

Healthcare

Variables Entered/Removed^a

Mode	Variables Entered	Variables Removed	Method
1	EDU ^b	.	Enter

a. Dependent Variable: Health

b. All requested variables entered.

Model Summary

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.396 ^a	.157	.155	.71964

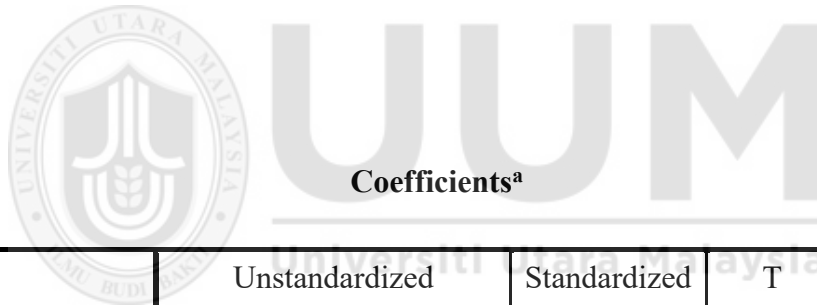
a. Predictors: (Constant), EDU

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.350	1	38.350	74.053	.000 ^b
	Residual	206.115	398	.518		
	Total	244.465	399			

a. Dependent Variable: Health

b. Predictors: (Constant), EDU



Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.355	.179		7.591	.000
	EDU	.369	.043	.396	8.605	.000

a. Dependent Variable: Health

APPENDIX:E

Hierarchical result Second Stage

Poverty variable (dependent)

Mode	Variables Entered	Variables Removed	Method
1	NGO ^b	.	Enter

a. Dependent Variable: Poverty

b. All requested variables entered.

Model Summary

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.030 ^a	.001	-.002	.67928

a. Predictors: (Constant), NGO

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.161	1	.161	.348	.556 ^b

Residual	183.643	398	.461		
Total	183.804	399			

a. Dependent Variable: Poverty

b. Predictors: (Constant), NGO

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.076	.143		14.560	.000
	NGO	.022	.036	.030	.590	.556

a. Dependent Variable: Poverty

Employment

Variables Entered/Removed^a

Mode	Variables Entered	Variables Removed	Method
1	NGO ^b	.	Enter

a. Dependent Variable: Employment

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.280 ^a	.078	.076	.68205

a. Predictors: (Constant), NGO

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.741	1	15.741	33.837	.000 ^b
	Residual	185.146	398	.465		
	Total	200.886	399			

a. Dependent Variable: Employment

b. Predictors: (Constant), NGO

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.897	.143		13.246	.000
1 NGO	.213	.037	.280	5.817	.000

a. Dependent Variable: Employment

Agricultural Productivity

Variables Entered/Removed^a

Mode	Variables Entered	Variables Removed	Method
1	NGO ^b		Enter

a. Dependent Variable: Agriculture

b. All requested variables entered.

Model Summary

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.440 ^a	.193	.191	.84134

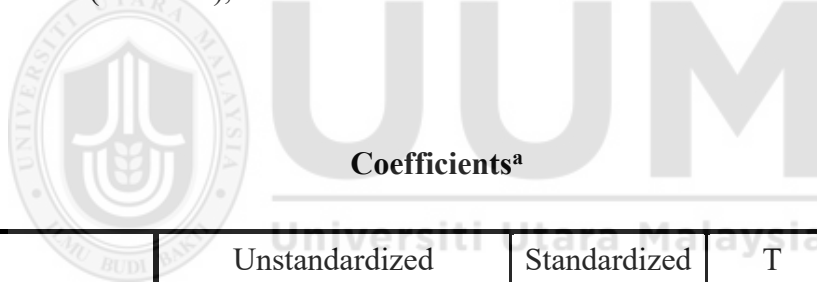
a. Predictors: (Constant), NGO

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	67.464	1	67.464	95.308	.000 ^b
	Residual	281.727	398	.708		
	Total	349.191	399			

a. Dependent Variable: Agriculture

b. Predictors: (Constant), NGO



Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.322	.177		7.485	.000
	NGO	.441	.045	.440	9.763	.000

a. Dependent Variable: Agriculture

Healthcare

Variables Entered/Removed^a

Mode	Variables Entered	Variables Removed	Method
1	NGO ^b	.	Enter

a. Dependent Variable: Health

b. All requested variables entered.

Model Summary

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.411 ^a	.169	.167	.71458

a. Predictors: (Constant), NGO

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.235	1	41.235	80.754	.000 ^b
	Residual	203.230	398	.511		
	Total	244.465	399			

a. Dependent Variable: Health

b. Predictors: (Constant), NGO

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.551	.150		10.338	.000
	NGO	.345	.038	.411	8.986	.000

a. Dependent Variable: Health

APPENDIX:F

Hierarchical result Moderation

Variables Entered/Removed^a

Mode	Variables Entered	Variables Removed	Method
1	EDCVXNG OCV, NGO, EDU ^b	.	Enter

a. Dependent Variable: Poverty

b. All requested variables entered.



Model Summary

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.264 ^a	.070	.063	.65716

a. Predictors: (Constant), EDCVXNGOCV, NGO, EDU

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.789	3	4.263	9.871	.000 ^b
	Residual	171.015	396	.432		
	Total	183.804	399			

a. Dependent Variable: Poverty

b. Predictors: (Constant), EDCVXNGOCV, NGO, EDU



Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.447	.290		11.871	.000
	EDU	-.343	.072	-.425	-4.764	.000
	NGO	.052	.045	.072	1.163	.245
	EDCVXNGO CV	-.183	.035	-.427	-5.215	.000

a. Dependent Variable: Poverty

Employment

Variables Entered/Removed^a

Mode	Variables Entered	Variables Removed	Method
1	EDCVXNG OCV, NGO, EDU ^b	.	Enter

a. Dependent Variable: Employment

b. All requested variables entered.



Model Summary

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.361 ^a	.131	.124	.66410

a. Predictors: (Constant), EDCVXNGOCV, NGO, EDU

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.237	3	8.746	19.830	.000 ^b
	Residual	174.649	396	.441		
	Total	200.886	399			

a. Dependent Variable: Employment

b. Predictors: (Constant), EDCVXNGOCV, NGO, EDU



Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.064	.293		3.626	.000
	EDU	.315	.073	.372	4.323	.000
	NGO	.087	.045	.115	1.932	.054
	EDCVXNGO CV	.056	.035	.124	1.572	.117

a. Dependent Variable: Employment

Agricultural Productivity

Variables Entered/Removed^a

Mode	Variables Entered	Variables Removed	Method
1	EDCVXNG OCV, NGO, EDU ^b	.	Enter

a. Dependent Variable: Agriculture

b. All requested variables entered.

Model Summary

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.498 ^a	.248	.243	.81407

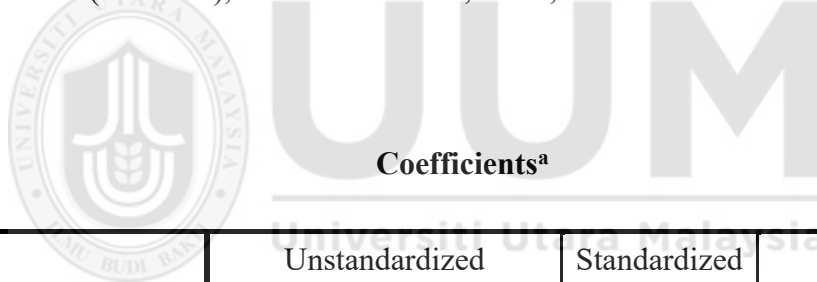
a. Predictors: (Constant), EDCVXNGOCV, NGO, EDU

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	86.756	3	28.919	43.636	.000 ^b
	Residual	262.435	396	.663		
	Total	349.191	399			

a. Dependent Variable: Agriculture

b. Predictors: (Constant), EDCVXNGOCV, NGO, EDU



Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.290	.360		-.808	.420
	EDU	.481	.089	.432	5.393	.000
	NGO	.327	.055	.326	5.897	.000
	EDCVXNGO CV	.175	.043	.296	4.023	.000

a. Dependent Variable: Agriculture

Healthcare

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	EDCVXNG OCV, NGO, EDU ^b	.	Enter

a. Dependent Variable: Health

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.474 ^a	.225	.219	.69189

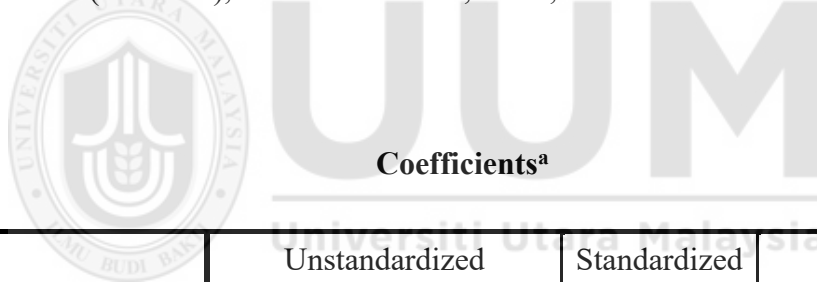
a. Predictors: (Constant), EDCVXNGOCV, NGO, EDU

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	54.897	3	18.299	38.226	.000 ^b
	Residual	189.568	396	.479		
	Total	244.465	399			

a. Dependent Variable: Health

b. Predictors: (Constant), EDCVXNGOCV, NGO, EDU



Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.280	.306		.915	.361
	EDU	.402	.076	.432	5.305	.000
	NGO	.232	.047	.276	4.917	.000
	EDCVXNGO CV	.126	.037	.255	3.406	.001

a. Dependent Variable: Health

