



**UNIVERSITI PUTRA MALAYSIA**

***ECONOMIC RELATIONSHIP BETWEEN CHILD LABOUR,  
POVERTY, SCHOOL ENROLMENT AND ECONOMIC  
GROWTH IN DEVELOPING COUNTRIES***

**IDRIS ISYAKU ABDULLAHI**

**FEP 2016 28**



**ECONOMIC RELATIONSHIP BETWEEN CHILD LABOUR,  
POVERTY, SCHOOL ENROLMENT AND ECONOMIC  
GROWTH IN DEVELOPING COUNTRIES**

By

**IDRIS ISYAKU ABDULLAHI**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,  
in Fulfillment of the Requirements for the Degree of Doctor of Philosophy**

**August 2016**

## COPYRIGHT

All material contained within the thesis, including without limitation text, logos, icons, photographs and all other artwork, is a copyright material of Universiti Putra Malaysia unless otherwise stated. Use may be made of any material contained within the thesis for non-commercial purposes from the copyright holder. Commercial use of material may only be made with the express, prior, written permission of Universiti Putra Malaysia.

Copyright © Universiti Putra Malaysia



## DEDICATION

This research work is dedicated to the late memory of my father Alhaji Abdullahi Danwanka, my mother Hajiya Maimunat Ibrahim as well as dearest wife Hauwa Yakubu and my children for their, love, patience, sacrifices and continues support towards the realization of this noble aim.



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the Degree of Doctor of Philosophy

**ECONOMIC RELATIONSHIP BETWEEN CHILD LABOUR,  
POVERTY, SCHOOL ENROLMENT AND ECONOMIC  
GROWTH IN DEVELOPING COUNTRIES**

By

**IDRIS ISYAKU ABDULLAHI**

**August 2016**

**Chairman : Associate Professor Zaleha Mohd Noor, PhD**  
**Faculty : Economics and Management**

This thesis provides empirical studies on important issues concerning child labour in developing countries. It aims at contributing to the literature on (1) the impact of poverty on the prevalence of child labour, (2) the effect of child labour prevalence on the rate of school enrolment and (3) the child labour impact on the economic growth. These objectives were achieved using both Difference generalised method of moments (D-GMM) and system generalised method of moments (S-GMM) estimators. The first objective evaluates the extent to which poverty of parents explains the prevalence of child labour in 55 developing countries and found that poverty is positively related to child labour prevalence in selected developing countries. This is an indication that increase in the level of household's poverty tends to stimulate the extent of children participation in employment prematurely in the countries selected for the study. The second objective examined the impact of child labour on school enrolment as an important yardstick determining human capital development in 57 developing countries. The finding indicated that children participation in labour activities, results to decrease in the rate of their enrolment in schools, an action which consequently affects human capital development in the affected countries. Lastly, the third objective assesses the influence of child labour in stimulating economic growth of 56 developing countries. Existence of an inverted U shape relation i.e. 'growth child labour Kuznets' curve was established between child labour and economic growth. This signifies that at the initial level of development of the countries studied, increase in child labour prevalence up to about 1.273 percent tends to positively stimulate growth of the selected developing countries. However any further increase in child labour prevalence beyond the threshold value of 1.273 percent, eventually leads to a decrease in the economic growth of the sample countries. The selection of sample countries to achieve the three objectives was based on the evidence of the existence of child labour in the developing countries studied and the study period was from 2009 to 2013. It was recommended that policies and programmes aimed at poverty alleviation should be pursued vigorously by governments of the developing countries so as to deter the chances of parent engaging their children in child labour. Similarly, flexible school

system should be encourage to allow children some liberty to engage in works particularly after school hours or during holidays. This will in a away leads to improvement in the rate at which children enrolled in schools, so as to provide necessary improvement in human capital development which is seen as a necessary stimulant of economic growth. Lastly, governments of developing countries should strive to ensure that child labour prevalence did not exceed the threshold level, as this could impede their economic growth.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Doktor Falsafah

**HUBUNGAN EKONOMI DI ANTARA BURUH KANAK-KANAK,  
KEMISKINAN, ENROLMEN SEKOLAH DAN PERTUMBUHAN  
EKONOMI DI NEGARA-NEGARA SEDANG MEMBANGUN**

Oleh

**IDRIS ISYAKU ABDULLAHI**

**Ogos 2016**

**Pengerusi : Profesor Madya Zaleha Mohd Noor, PhD**  
**Fakulti : Ekonomi dan Pengurusan**

Tesis ini memberikan kajian empirik mengenai isu-isu penting tentang buruh kanak-kanak di negara-negara sedang membangun. Ia berhasrat menyumbang kepada literature mengenai (1) kesan kemiskinan ke atas penyebaran buruh kanak-kanak, (2) kesan penyebaran buruh kanak-kanak ke atas enrolmen ke sekolah dan (3) impak buruh kanak-kanak ke atas pertumbuhan ekonomi. Objektif-objektif ini dicapai menggunakan penganggaran kedua-dua kaedah momen menyeluruh perbezaan (D-GMM) serta kaedah momen menyeluruh sistematik (S-GMM). Objektif pertama menilai sejauh mana kemiskinan ibu bapa dapat menerangkan penyebaran buruh kanak-kanak di 55 negara sedang membangun. Adalah didapati bahawa kemiskinan berhubung secara positif dengan penyebaran buruh kanak-kanak di negara-negara sedang membangun terpilih. Ini menunjukkan bahawa tahap kemiskinan isirumah boleh mengalakkan tingkat penyertaan pramatang kanak-kanak ke dalam gunatenaga. Objektif kedua menyiasat kesan buruh kanak-kanak ke atas enrolmen ke sekolah bagi 57 buah negara sedang membangun. Hasil dapatan menunjukkan penyertaan kanak-kanak dalam aktiviti perburuhan menyebabkan pengurangan kadar enrolment mereka ke sekolah, yang mana akhirnya akan menjejaskan perkembangan modal manusia bagi negara-negara ini. Akhir sekali, objektif ketiga menilai pengaruh buruh kanak-kanak di dalam mengalakkan pertumbuhan ekonomi di 56 negara sedang membangun. Keujudan keluk U terbalik Kuznet, (keluk Kuznet) menunjukkan terdapat hubungan di antara buruh kanak-kanak dan pertumbuhan ekonomi. Ini bermakna, pada tahap awal pembangunan di negara-negara yang dikaji, pertambahan penyebaran buruh kanak-kanak sehingga ke tahap 1.273 peratus dapat menggalakkan pertumbuhan ekonomi di negara-negara ini. Walau bagaimanapun, sebarang peningkatan penyebaran buruh kanak-kanak lebih dari nilai ambang ini, akhirnya akan menyebabkan pengurangan dalam pertumbuhan ekonomi bagi negara-negara di dalam sampel. Pemilihan negara-negara sampel bagi mencapai ketiga-tiga objektif ini dibuat berdasarkan keujudan buruh kanak-kanak di negara-negara tersebut dan liputan kajian adalah bagi tempoh 2009 hingga 2013. Adalah disarankan dasar-dasar dan rancangan-rancangan yang bertujuan untuk menghapuskan kemiskinan dilaksanakan oleh

kerajaan di negara-negara sedang membangun ini secara giat. Pertambahan pendapatan keluarga sudah tentu akan menghalang ibu bapa daripada menghantar anak-anak mereka bekerja. Dalam masa yang sama, sistem sekolah yang lebih fleksibel perlu digalakkan untuk memberikan kanak-kanak sedikit kebebasan bekerja, terutamanya selepas waktu sekolah atau pun semasa cuti sekolah. Perkara seperti ini akan meningkatkan kadar enrolmen ke sekolah dan akhirnya memperbaiki keadaan modal manusia dan pertumbuhan ekonomi negara-negara berkenaan. Akhir sekali, kerajaan di negara-negara sedang membangun perlu berusaha supaya tingkat buruh kanak-kanak tidak melebihi tingkat ambang, kerana ini akan menjejaskan pertumbuhan ekonomi mereka.



## ACKNOWLEDGEMENTS

All praises are due to ALLAH most gracious most merciful, for sparing my life, given me wisdom, good health and perseverance to witness this historic moment of PhD thesis completion.

In the course of writing this PhD thesis some people greatly assisted by making significant input to ensure successful realization of the research study. First and foremost, I will start by expressing my unreserved gratitude to my supervisor Associate Professor Dr. Zaleha Mohd Noor, whose effort and constant encouragement remained greatly appreciated. Throughout the process of writing this thesis, she has been patient and always provides encouragement and utmost support to ensure that the process is a hitch free one. Furthermore, my profound gratitude also goes to my co-supervisors Associate Professor Dr. Rusmawati Said and Dato' Professor Dr. Ahmad Zubaidi Baharumsha, for their guidance and support.

I sincerely thanks my friends who have assisted me in one way or the other to ensure successful completion of this research work, among which include Sulaiman Chindo, Hamisu Sadi Ali, Peter Adamu, Adamu Yahaya, Ibrahim Muye, Abdullahi Adamu, Aliyu Danladi Hina, Danladi Yusuf Gumel, Ahmed Ibrahim Karage Dr Maina, Umar Yakasai, Adamu Noma, Ibrahim Arzuka, and numerous others whose names cannot be mentioned here, I also appreciate your contributions.

I also appreciate my colleagues especially those in the department of Accounting and finance, ATBU Bauchi, particularly Dr. Bala Sulaiman Dalhat, Lawan Yahaya, Lawan Garba Jaji, Abubakr Yahay Halad, Hafiz, Dr. Samaila Ningi, Abdulmalik sambo, Dr. Maiwada Bashir, Prof. Dr. Lawal Abubakar (ASUU Chairman, ATBU), Dr. Bala Maji among other. Similarly, gratitude goes to Abubakar Tafawa Balewa University Bauchi for granting me opportunity to further my study abroad.

Last but not the least I sincerely appreciate the support of my entire family members especially my beloved mother Hajiya Maimunat Ibrahim, for the endless love she expresses to me and constant prayer to see to the success of my PhD programme. I appreciate the encouragement by my brother Prof. Dr Haruna Abdullahi Danwanka. I sincerely registered my gratitude to my darling wives, Hauwa Yakubu and Hauwa Yakubu Gurama who take care of my children in my absence and always come to my support from the beginning to the end of this programme and beyond. You are indeed a pious women.

This thesis was submitted to the Senate of the Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

**Zaleha Mohd Noor, PhD**

Associate Professor  
Faculty of Economics and Management  
Universiti Putra Malaysia  
(Chairman)

**Rusmawati Said, PhD**

Associate Professor  
Faculty of Economics and Management  
Universiti Putra Malaysia  
(Member)

**Ahmad Zubaidi Baharumsha, PhD**

Professor  
Faculty of Economics and Management  
Universiti Putra Malaysia  
(Member)

---

**BUJANG BIN KIM HUAT, PhD**

Professor and Dean  
School of Graduate Studies  
Universiti Putra Malaysia

Date :

## Declaration by Members of Supervisory Committee

This is to confirm that:

- the research conducted and the writing of this thesis was under our supervision;
- supervision responsibilities as stated in the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) were adhered to.

Signature: \_\_\_\_\_  
Name of Chairman  
of Supervisory  
Committee: Associate Professor Dr. Zaleha Mohd Noor

Signature: \_\_\_\_\_  
Name of Member  
of Supervisory  
Committee: Associate Professor Dr. Rusmawati Said

Signature: \_\_\_\_\_  
Name of Member  
of Supervisory  
Committee: Professor Dr. Ahmad Zubaidi Baharumsha

## TABLE OF CONTENTS

	<b>Page</b>
<b>ABSTRACT</b>	i
<b>ABSTRAK</b>	iii
<b>ACKNOWLEDGEMENTS</b>	v
<b>APPROVAL</b>	vi
<b>DECLARATION</b>	viii
<b>LIST OF TABLES</b>	xii
<b>LIST OF FIGURES</b>	xiv
<b>LIST OF APPENDICES</b>	xv
<b>LIST OF ABBREVIATIONS</b>	xvi
<b>CHAPTER</b>	
<b>1 INTRODUCTION</b>	<b>1</b>
1.1 Background Of The Study	1
1.1.1 Child Labour Trends	2
1.1.2 Poverty and Child labour	8
1.1.3 Child labour and school enrollment	12
1.1.4 Child labour and economic growth	15
1.2 Statement Of The Research Problems	18
1.3 Research Questions	19
1.4 Objectives of The Study	20
1.5 Significance of The Study	20
1.6 Organization of The Study	22
1.7 Organization of the Study	22
<b>2 REVIEW OF LITERATURE</b>	<b>23</b>
2.1 Introduction	23
2.2 Poverty and Child Labour	23
2.2.1 Theoretical review	23
2.2.2 Empirical literature on poverty and child labour	25
2.3 Child Labour and School Enrollment	29
2.3.1 Theoretical review	29
2.3.2 Empirical literature on child labour and school enrollment	30
2.4 Child Labour and Economic Growth	35
2.4.1 Theoretical review	35
2.4.2 Empirical literature on child labour and economic growth	36
2.5 Methodological Review	38
2.5.1 Methods based on time series analysis	38
2.5.2 Methods based on cross- sectional analysis	39
2.5.3 Methods based on panel data analysis	40
2.6 Gaps In The Literature	41
<b>3 RESEARCH METHODOLOGY</b>	<b>43</b>
3.1 Introduction	43

3.2	First Objective: Poverty and Child Labour	43
3.2.1	Theoretical framework	43
3.2.2	Empirical model	46
3.2.3	Variables description and expected signs	48
3.2.4	Summary of the variables and data source	50
3.3	Second Objective: Child Labour and School Enrollment	51
3.3.1	Theoretical framework	51
3.3.2	Empirical model	53
3.3.3	Variables description and Expected signs	56
3.3.4	Summary of the variables and data sources	58
3.4	Third Objective: Child Labour and Economic Growth	59
3.4.1	Theoretical framework	59
3.4.2	Empirical model	62
3.4.3	Variables description and expected signs	65
3.4.4	Summary of the variables and data sources	66
3.5	Empirical Methodology	67
3.6	Conclusion	69
<b>4</b>	<b>RESULTS AND DISCUSSIONS</b>	<b>71</b>
4.1	Introduction	71
4.2	Empirical Findings for Objective One: Poverty and Child Labour	71
4.2.1	Descriptive statistics and correlation matrix	71
4.2.2	Main result and discussions	73
4.3	Empirical Findings for Objective Two: Child Labour and School Enrollment	80
4.3.1	Descriptive statistics and correlation matrix	80
4.3.2	Main result and discussions	82
4.4	Empirical Findings for Objective Three: Impact of Child Labour on Economic Growth in Developing Countries	88
4.4.1	Descriptive statistics and correlation matrix	88
4.4.2	Main result and discussions	90
<b>5</b>	<b>SUMMARY, CONCLUSION AND POLICY RECOMMENDATION</b>	<b>98</b>
5.1	Introduction	98
5.2	Summary of the Study	98
5.3	Limitations of the Study and Future Research Direction	99
5.4	Recommendations of the Study	100
	<b>REFERENCES</b>	<b>102</b>
	<b>APPENDICES</b>	<b>110</b>
	<b>BIODATA OF STUDENT</b>	<b>173</b>
	<b>LIST OF PUBLICATIONS</b>	<b>174</b>

## LIST OF TABLES

<b>Table</b>		<b>Page</b>
1.1	Child labour and adult labour in developing countries (2013)	10
3.1	Data description for objective one: Impact of poverty on child labour	51
3.2	Data description for objective two: effect of child labour on school enrollment	59
3.3	Data description for objective three : impact of child labour on economic growth	67
4.1	Descriptive Statistics for objective one: Impact of poverty on child labour	72
4.2	Correlation matrix for objective one: Impact of poverty on child labour	73
4.3	Difference - GMM estimation on the effect of poverty on child labour (one-step result)	74
4.4	Difference - GMM estimation on the effect of poverty on child labour (two step result)	75
4.5	System - GMM estimation on the effect of poverty on child labour(one -step result)	76
4.6	System - GMM Estimation on the effect of poverty on child labour (two-step result)	77
4.7	Descriptive Statistics for objective two: Impact of child labour on school enrollment	81
4.8	Correlation matrix for objective two: Impact of child labour on school enrollment	82
4.9	Difference -GMM estimation on the effect of child labour on school enrollment (one-step results)	83
4.10	Difference -GMM Estimation on the effect of child labour on school enrollment (two-step results)	84
4.11	System - GMM Estimation on the effect of child labour on school enrollment (one-step results)	85

4.12	System- GMM Estimation on the effect of child labour on school enrollment (two-step results)	86
4.13	Descriptive Statistics for objective three: Effect of child labour and economic growth	89
4.14	Correlation matrix for objective three: Impact of child labour on economic growth	89
4.15	Difference -GMM Estimation on the effect of child labour on economic growth (one-step results)	90
4.16	Difference -GMM Estimation on the effect of child labour on school enrollment (two-step results)	92
4.17	System-GMM Estimation on the effect of child labour on school enrollment (one step results)	94
4.18	System-GMM Estimation on the effect of child labour on school enrollment (two step results)	95

## LIST OF FIGURES

<b>Figure</b>		<b>Page</b>
1.1	Global child labour trends, 2000-2012	4
1.2	Global trends in incidence of child labour 2000-2012	6
1.3	Regional net income benefits of eliminating child labour 2000-2020 (as a percentage of aggregate annual growth of national income)	7
1.4	Scattered plots of child labour and poverty in developing countries (2009-2013)	12
1.5	Out-of-school children of primary school age, by region, 2012	13
1.6	Out-of-school children of lower secondary school age, by region, 2012	14
1.7	Scattered plot for child labour and school enrollment in developing countries 2009-2013	15
1.8	Scattered plot for child labour and economic growth in developing countries 2009-2013	16
1.9	Scattered plots for child labour square and economic growth in developing countries (2009-2013)	17
3.1	Multiple equilibria and government intervention model	44

## LIST OF APPENDICES

<b>Appendix</b>		<b>Page</b>
A1	List of countries for objective one	110
A2	List of countries for objective two	110
A3	List of countries for objective three	111
B	Empirical Results	112



## LIST OF ABBREVIATIONS

CEE	Central and East Europe
CIS	Commonwealth of Independent States
D- GMM	Difference Generalised Method of Moments
FDI	Foreign Direct Investment
RGDP-Per capita	Real Gross Domestic Product- Per capita
ILO	International Labour Organisations
ILO-SED	International Labour Organization- Small Enterprises Development Programme
IPEC	International Programme on the Elimination of Child Labour
LSDV	Least Square Dummy Variable
OLS	Ordinary Least Square
S- GMM	System Generalized Method of Moments
WDI	World Development Indicators

# CHAPTER 1

## INTRODUCTION

### 1.1 Background of the Study

Unlike in the developed countries, child labour in developing countries is high despite the decline in the number of participating children in labour activities (see figure 1.1). This constitutes one of the major problems bedeviling the societies with serious repercussion on poverty reduction, rate of school enrollment which is considered a major determinant of human capital development, and economic growth.

In recent times, there has been an increase in the global focus regarding the menace of child labour. Ranjan (1999) posited that the spread of child labour in developing countries is alarming. This resulted to a renewed concern regarding the issue which culminated to a series of studies aimed at understanding the consequences of child labour with a view to provide guidance to policy responses (See Edmonds and Pavcnik, 2005; Basu and Tzannatos, 2003; Basu, 1999).

According to the international programme on the elimination of child labour recent estimates indicated that 168 million children were involved in various economic activities worldwide, which accounted for approximately 11 percent of the entire children population (ILO, 2013). Almost all of them are subjected to working for longer period of time in activities related to unhealthy environments, mostly shouldering responsibilities bigger than their individual capabilities sometimes with meager pay, less food, lack of access to education and above all with less medical attention.

International programme on the elimination of child labour (ILO-IPEC, 2013) postulated that it is not the entire engagement of children into work that is targeted for elimination, considering the fact that not all work done by children is regarded as child labour. For instance, work done by children during holidays or out of school hours such as family routines, children and adolescent involvement in work that does not affect their personal development as well as their health and which at the same time does not impede their schooling is generally encourage. Such kinds of activities assist children in their personal development. Equally important is the fact that such activities help children to develop skills and experience which prepare them to be productive members of societies in future (ILO-IPEC, 2013).

The International Labour Organisation (ILO) defined child labour as any work which deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development in its most extreme forms. Child labour encompasses children being enslaved, separated from their families, exposed to serious hazards and illnesses and or left them to fend for themselves on the streets of

large cities usually at a very early age. It comprises of the work that; is mentally, physically, socially or morally harmful and dangerous to children and interferes with their schooling by denying them opportunity to attend schools, obliging them to drop out of school prematurely or require them to combine school attendance with excessively long and heavy work. Whether or not any particular forms of “work” can be described as “child labour” depends on the child’s age, the type of work, hours worked and the conditions under which the work is performed (ILO, 2003).

The term child labour is similarly, defined as any work which entails keeping child away from child related activities, such as education and a reasonable period of play (Chandrasekhar, 1997).

Historical evidence revealed that although the problem of child labour is affecting most developing countries, its existence in the developed countries can be trace as early as the industrial revolution periods. Today due to rapid globalization of the world economy through the advancement in technological know-how, the chances of preserving child employment in developed countries are restrained (Basu 1998). In a study by Dumas (2007), he suggested that the threat of child engagement in labour activities have been eradicated in Western Europe during the twentieth century but its prevalence persist in most developing countries.

The major sector which is seriously involved in child labour in the recent time is the agricultural sub-sector and family chores, where some of these children are paid while others are not (Kim and Zepeda, 2004). Nevertheless, this does not suggest that other sectors such as the service and manufacturing sectors where a reasonable number of children have participated in the labour activities are overlooked and especially those children engaging in the informal sector should not be given cursory attention.

Similarly, there has been a claimed that greater percentage of labour work relating to children is mostly carried out in activities related to the agricultural sub sector or within family setting in the form of housekeeping and unpaid job. The region reported to have the highest number of child labourers is Asia and Pacific, while in terms of the incidence, Sub-Saharan Africa emerged to be the highest with at least two in every five children is a child labourers (Zabaleta 2011)

### **1.1.1 Child labour trends**

Recent estimates, according to ILO (2013) indicated that 168 million children, equivalent to 11 percent of the entire children population were engaged in child labour activities worldwide as earlier mentioned. Most of which predominantly worked in the developing countries. However, an improvement has been recorded with regards to rate of children participation in employment, resulting from improvement in research and concerted effort of governments in various countries which includes institution of policies and legislation that discourage child labour. This results to a decline in child labour trends globally during the last decade. Though, in spite of the substantial

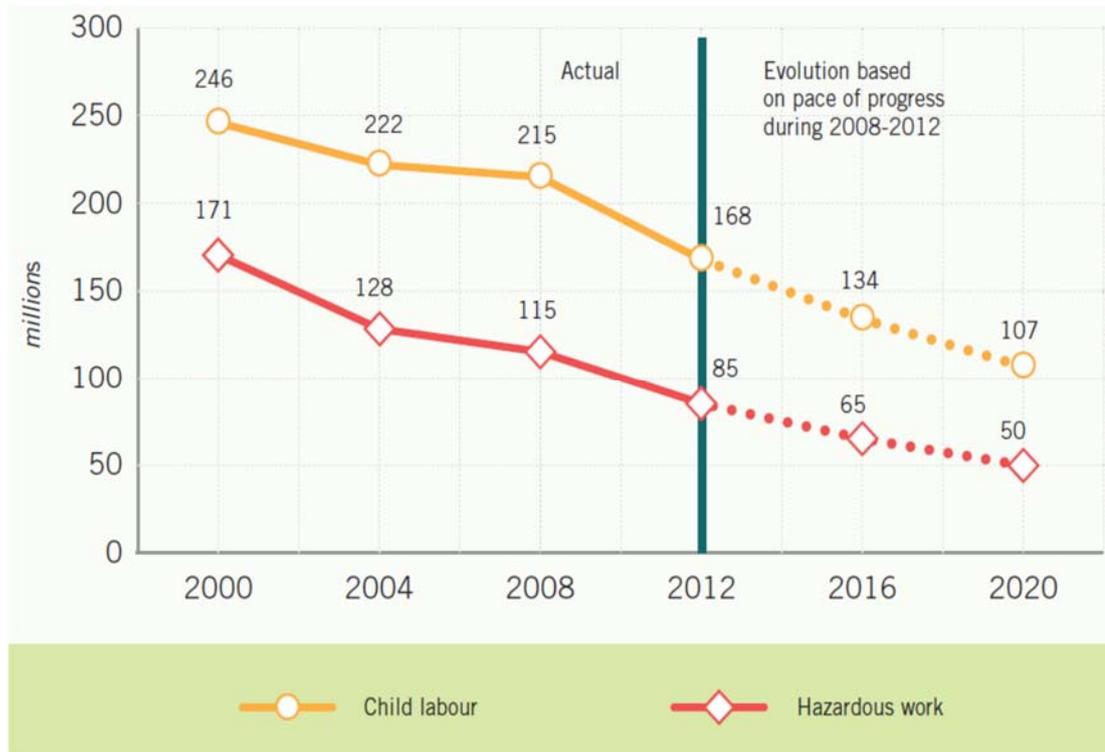
progress that has been made, child labour is still high across developing countries (ILO, 2013).

The benefits of ending child labour cannot be overemphasised, considering the fact that children who grow up free from child labour have the higher chance of realizing their rights to education, leisure and healthy development, which in turn help them to experience significant improvement in their income levels when they grow up as working adults. This contribution is huge in making them successful in their transition into decent work after completion of their education as well as being able to contribute meaningfully as members of the society during adulthood.

Like the benefits associated to child labour elimination, the consequences of inaction are correspondingly glaring too in the sense that child labour can extremely threaten children's immediate health and safety, and their health status later in life. This is mostly the case for the children in the worst forms of child labour. Consequently, it leads to inter-generational vicious circle of poverty, considering the fact that children that were affected by child labour will remain to be unskilled labourers when they grow up as a result of their inability to attend school in their teen's years.

It was postulated that in the United States of America almost one half of children born to low income parents become low income adults. Similarly, in the United Kingdom, four in every ten children of the poor families have the tendencies of growing up as poor adults. The Canadian experience revealed that one third of low income children do not escape low income in adulthood. The generational cycles of low income are more severe in developing countries (Corak, 2006). This asserted the proposition for inter-generational vicious circle of poverty.

The implication of having poor parent in the developing countries need to be halted, to avoid the possibilities of their children growing up as poor people, which generally this situation is seen as a stimulant that pave the way for children involvement in child labour activities. The engagement of children in labour activities is also hindering the children's ability to enroll in school and to benefit from the time they could have spent in the classroom and in the long run this action is detrimental to human capital development of the affected societies.



**Figure 1.1 : Global child labour trends (2000-2012)**  
(Source: ILO 2013)

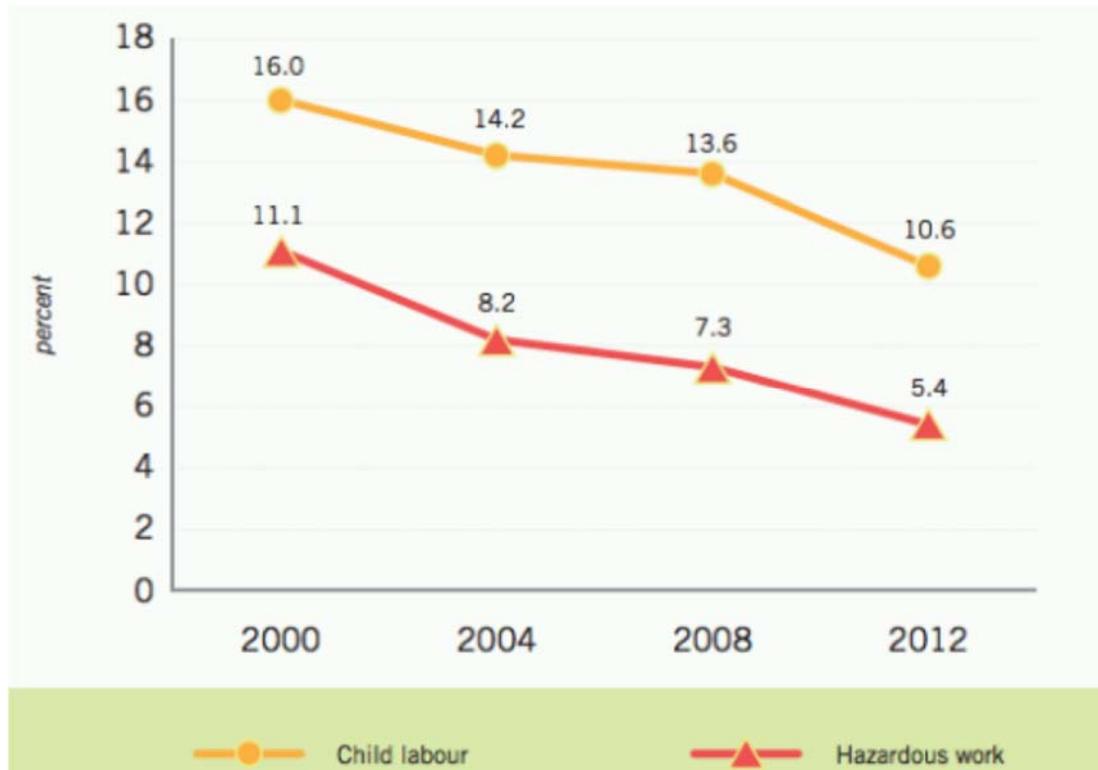
Figure 1.1 above indicates that there has been a significant progress in the trend of child labour globally, where the world is experiencing a decline in the number of children participating in child labour from 246 million in 2000 to 168 million in 2012 across the globe. The Declining trend signified that the strategy specified by the “Hague Global Child Labour Conference 2010” tagged “Towards a world without child labour mapping the road to 2016” held at the Hague, Netherlands in 2010 seemed to be comprehensive and that the global direction towards elimination of child labour by the year 2016 is on the right course. However, the slow pace at which global communities are responding towards the elimination of child labour by 2016 is worrisome and should the current slow pace prolongs, the target of complete eradication of child labour syndrome by the end of 2016 will be extremely difficult to achieve within a stipulated time frame.

Evidently, Figure 1.1, which illustrates the slow progress of the eradication of child labour during the period 2008-2012. This indicated that with the existing slow rate of decline in child labour, the world will fall short of the 2016 target, since global conference on child labour held at Hague, the Netherland 2010 targeted for complete elimination of child labour syndrome by the end of the year 2016 and the slow rate of the decline as well as the projected figures indicated that the world will still be with the child labour issue up to the year 2020. This invariably means that much is needed to be done by the world economies in terms of empirical researches so as to devise a means for complete eradication of the problem from our societies. Even to reach the target four years later in 2020 according to the study requires a serious effort which

will lead to an increase in the yearly rate of child labour decline from 6.5 to 24 percent (ILO, 2013).

The inability of developing countries to be able to eliminate child labour problem is attributed to lack of strict policies geared towards total elimination of the menace. Developed countries have implemented policies such as imposing legislation which consequently ban child labour, stopping importation of products from countries that practice child labour as well as imposing restriction on the countries with highest child labour prevalence from any form of financial assistance. These efforts are among the factors that have brought success to those countries in terms of child labour elimination. For example, world economies such as Belgium drastically reduces importation of sports goods from Pakistan especially the hand-stitched footballs which were mostly produced by child labourers in an attempt to protest the involvement of children in labour activities and to ensure that children go back to school (Ahmed, 2012).

Furthermore, Figure 1.1 and 1.2 highlighted that there was a decline in both the number and the incidence of child labour within the period under review. For instance there was a notable reduction in the number of the children involvement in child labour from approximately 246 million in 2000 to about 168 million in 2012, a decrease of about forty seven million (See Figure 1.1). The progress was the result of awareness of the world economies as well as commitments by governments at various levels towards the eradication of the menace. For instance, among the policy options adopted by some of the world economies such as the United States of America to deter the development of child labour menace quickly, include; banning child labour and or sanctioning countries that allow the practice. Furthermore, countries like Belgium drastically reduce importation of sports goods from Pakistan especially the hand-stitched football which were mostly produced by child labourers in an attempt to eliminate children participation in labour activities and ensure that children go back to school (Ahmed, 2012).



**Figure 1.2 : Global Trends in incidence of child labour (2000-2012)**  
(Source: ILO 2013)

With respect to the incidence (percentage) of the children engaging in child labour in developing countries, the incidence of child labour indicated that there was also a reduction in the child labour from about 16 per cent in 2000 to less than 11 per cent in 2012 across the globe (see Figure 1.2). The decline in the number of children that partake in child labour as well as the incidence or rather the percentage of children that are into child labour globally indicated that a significant progress have been made over the years. These efforts are geared towards an attempt to eradicate the menace of child labour, though, the decline highlighted above is not satisfactory enough to neglect the problem of children involvement in employment, considering the higher number of children still participating in child labour as well as the negative consequences associated to the menace such as its effect on future labour productivity, human capital development as well as the growth of the economies of the developing countries. The major challenge facing international communities particularly developing countries is to reduce the number of child labour to the barest minimum if not a complete elimination of child labour.

There has been positive development in the attempt to eliminate child labour, although the global economic meltdown of 2008-2009 brought fear that its aftermath would lead to the rising number of families sending their children as child. There are basically two reasons why in spite of the recent economic meltdown experienced by the world economies, there has never been an increase in the global child labour syndrome. First, while the developing countries were not freed by the predicament, they have mostly been considered faster in recovering from its effects, although on a lower growth path.

Second, the slower economic growth recorded, resulting from the crisis aftermath has eventually reduced the demand for labour which includes demand for both adults and child labourers (Basu and Tzannatos, 2003).

Other major factors leading to the decline of child labour over the years are attributed to the attention given to child labour by countries, employers, employees as well as other relevant stakeholders which over the years have yielded positive result. It is evident to note that no single entity among the stakeholders will claim sole credit for the overwhelming result. However, the significant contribution by the International Labour Organization (ILO) in creating awareness on the consequences of the hazard of child labour, has played a significant role in bringing necessary attitudinal changes towards the menace across developing countries. It has helped in drawing attention of the societies to the negative impacts of child labour on poverty, school enrollment and growth as well as other aspects of the societies in which they live and the rights of the affected children (ILO-IPEC, 2013).



**Figure 1.3 : Net income benefits of eliminating child labour by regions 2000-2020** (As a percentage of aggregate annual growth of national income) (Source: ILO, 2003)

According to a study by the international programme on the elimination of child labour (IPEC), banning child labour, and consequently educating the entire children will lead to an increase in the aggregate annual growth of world's income by 22.2 percent which is equivalent to \$4.3 trillion over twenty years (see figure 1.3). The major benefit of eliminating child labour is that the children would have the opportunities of getting proper education and hence, would boost their future economic well-being as well as better health benefits. The net income benefit as presented in (Figure 1.3) refers to the difference between total economic cost and benefits. They are discounted present values which condense the entire streams of cost and benefits over the twenty years of

the programme “International programme on the elimination of child labour” (and further years of education benefits as former children continue to work as adult) into a single number, reducing today equivalence of future amounts as at the rate of five percent per year.

It is important to note that elimination of child labour and its subsequent replacement by universal education is estimated to yield enormous economic benefits, apart from the social and intrinsic benefit that make the issue so salient. All regions of the world will experience large net gains, although, some regions may benefit more than others. The region with highest level of children participation in child labour activities stand to benefit more than the region with less child labour. For instance Asia which is the region with highest number of child labour in terms of numbers stand to benefit \$2.9trillion while Sub-Saharan Africa which is the region with the highest incidence (Percentage) of child labour stand to benefit \$584.4 billion. This demonstrates that the benefits of expanded education are above the cost (ILO, 2003). This study indicates that there is significantly positive rates of return from investing in education, which can only be fully harness if children are enrolled in schools and investment in human capital rises.

### **1.1.2 Poverty and child labour**

Most of the developing countries in the world today face numerous problems among which the most difficult and far reaching has been the problem of high rate of poverty which consequently, lead to the engagement of majority of poor children in child labour. Approximately, about 95 percent of the child labourers contributed to the household’s income in the developing economies of Africa, Asia and Latin America. However, the rate of their contribution to total national income is still insignificant considering the fact that such kind of labour activities are mostly operating in informal sectors and the proceeds from them are not often captured in the national income computation (Admassie, 2003).

Child labouring differs in accordance with the nation’s norms and values as well as the family settings. These differences can be distinguished between child labour in rural and urban settlements and the child’s socio-economic development condition to mention a few (Admassie, 2003). According to the international labour organization (ILO, 2010) the number of children that were engaged in child labouring stood at 215 million across the globe and it is generally believed that child labour problem is largely attributed to parents’ poverty particularly in developing countries where the child labour problem is so prominent (Okunmadewa, F., Olaniyan, O., Yusuf, S. A., Bankole, A. S., Oyeranti, O. A., Omonona, B. T., and Kolawole, K. 2005).

Arguments on the perils of child labouring could be traced on its implication to any given economy at the micro (household) level and also at the macro (country) perspectives. It is usually, debated that the total elimination of child labouring may result to the unending sufferings of the poor family considering the fact that poor families tends to consider child labour as a supplementary source of income which

enable them to improve their destitution especially in developing countries (Blunch and Verner, 2001).

In a similar development Blunch and Verner (2001) asserted that the survival of poorer families to a greater extent depends on the money or the support of their children. With respect to the effect of child labour at macro level, specifically the labour market, it is a common belief that teenagers tend to deprive adult employment because the child labour is frequently low paid by the employers to take advantage of the situation. As a result of the cheap child labour wages, this suppresses the adult wage rates in the markets.



© COPYRIGHT UPM

**Table 1.1 : Child labour and adult labour in developing countries (2013)**

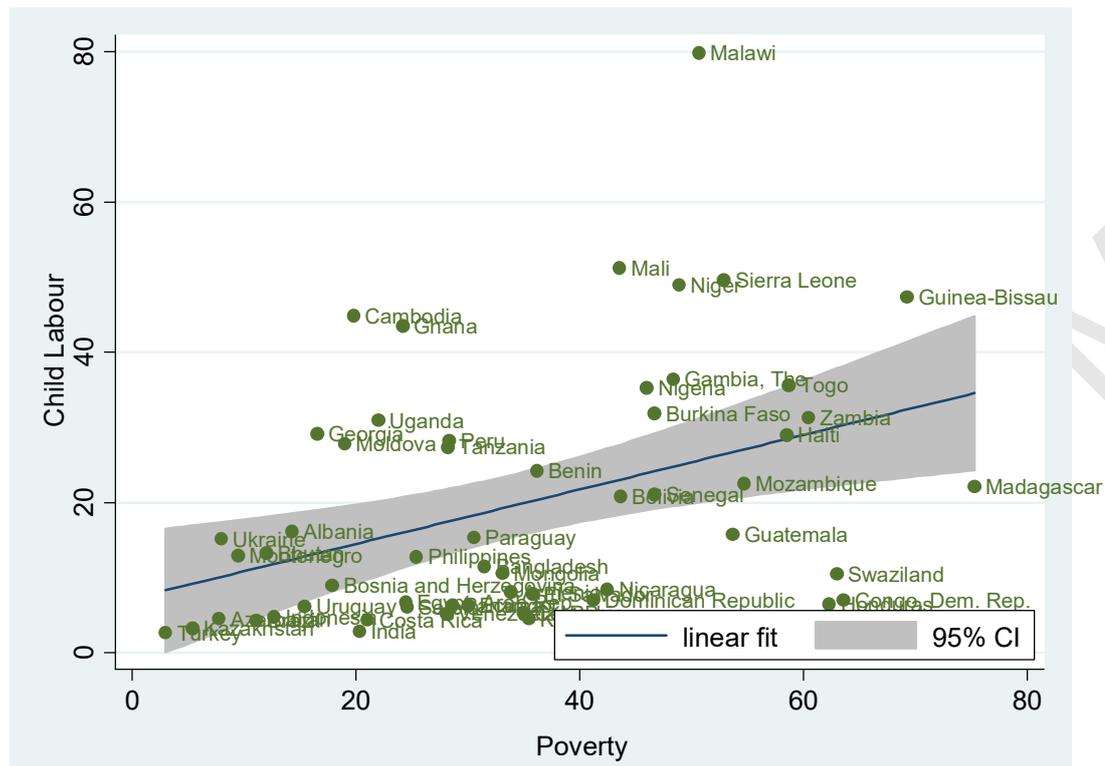
<b>SN</b>	<b>COUNTRY</b>	<b>CHILD LABOUR</b>	<b>ADULT LABOUR Labor force participation rate, total (% of total population ages 15-64) (modeled ILO estimate)</b>
1	Benin	31.5	73.7
2	Burkina Faso	42.1	85.1
3	Burundi	27.2	83.6
4	Cambodia	28.7	84.9
5	Cameroon	56.2	71.2
6	Central African Republic	51.1	79.2
7	Chad	53	71.9
8	Comoros	35.6	58.3
9	Cote d'Ivoire	39.8	67.9
10	Gambia, The	36.4	77.6
11	Ghana	43.5	70.4
12	Guinea-Bissau	47.3	74.6
13	Kenya	32.5	67.8
14	Mali	46.4	67
15	Nepal	33.7	85.7
16	Niger	47.8	65.7
17	Nigeria	31.1	56.2
18	Sierra Leone	34.7	68.8
19	Somalia	39.8	57.9
20	Togo	35.7	82.2
	<b>AVERAGE</b>	<b>39.705</b>	<b>72.485</b>

Source: Author's Computation based on data from United States department of labour and world development indicators (WDI)

Table 1.1 shows that child labourers in developing countries averaged 39.71 percent while adult labour force averaged 72.49 percent. Looking at the average figure of child labour, it is a clear justification of the fact that child labour contributed to the survival of their households. Similarly, the percentage indicates that despite the reported decline in child labour (see Figure 1.1), the rate of child labour is still high in developing countries. It is quite worrisome to allow on average of 39.71 percent out of the entire population of children in developing countries to remain as child labourers. If the current average is to be maintained child labour will obviously threatened adult labour opportunities in the labour market in the near future.

In recent times an attempt has been made to address children's participation in labour activities by reducing employment opportunities for children through boycotting of products produced by the child labourers. For instance the United States has in various occasions enacted laws that prohibit importation into the United States of products produced using child labourers. As a result of the threat posed by such sanction, the Bangladesh export oriented garment factories lay off more than ten thousand (10,000) child labourers below the age of 14 years in the mid-1990's (Edmonds and Pavcnik, 2005).

The United States House of Common has deliberated the “Child Labour Elimination Act”, a policy geared towards imposing a general trade sanctions which include denial of all forms of financial assistance and instant stoppage of multinational credits to 62 developing countries with high incidence of child labour (Edmonds and Pavcnik, 2005).



**Figure 1.4 : Scattered plots of child labour and poverty in developing countries (2009-2013)**

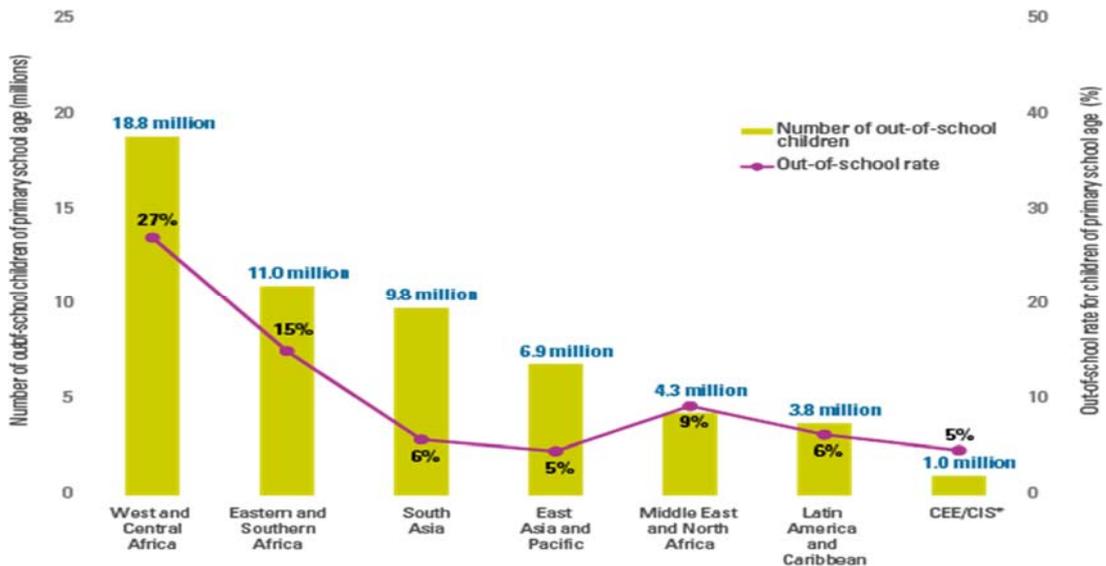
Source: (Authors computation based on data from the United States department of labour and World Development Indicators WDI)

As depicted in Figure 1.4, there exists a positive relationship between child labour prevalence and poverty in the countries under review. This shows that as the poverty of parent increases there is a corresponding increase in the rate at which children participate in child labour activities. This proposition is supported by some empirical studies most of which used data base on single country (see Blunch and Verner, 2001; Okunmadewa, et al., 2005).

### 1.1.3 Child Labour and school enrollment

Helpless children are often oppressed in various countries of the world today. They are usually forced into employment for varying causes that often inhibit their right to access which ultimately, affect them physically and psychologically (Hartl, 2006). Child labour prevalence is usually fueled by its perpetrators to meet their undue advantage of reducing cost of production as well as maximizing their profit (Bellamy, 1996). Some children, particularly those that reside in developing countries do engage in child labouring either as full time or part time workers, with some of them engaging in paid work while others are involved in unpaid work. Among the children that are entangled in child labour, tend to combine work with schooling while others are fully employed without attending school (Masuhama, 2006).

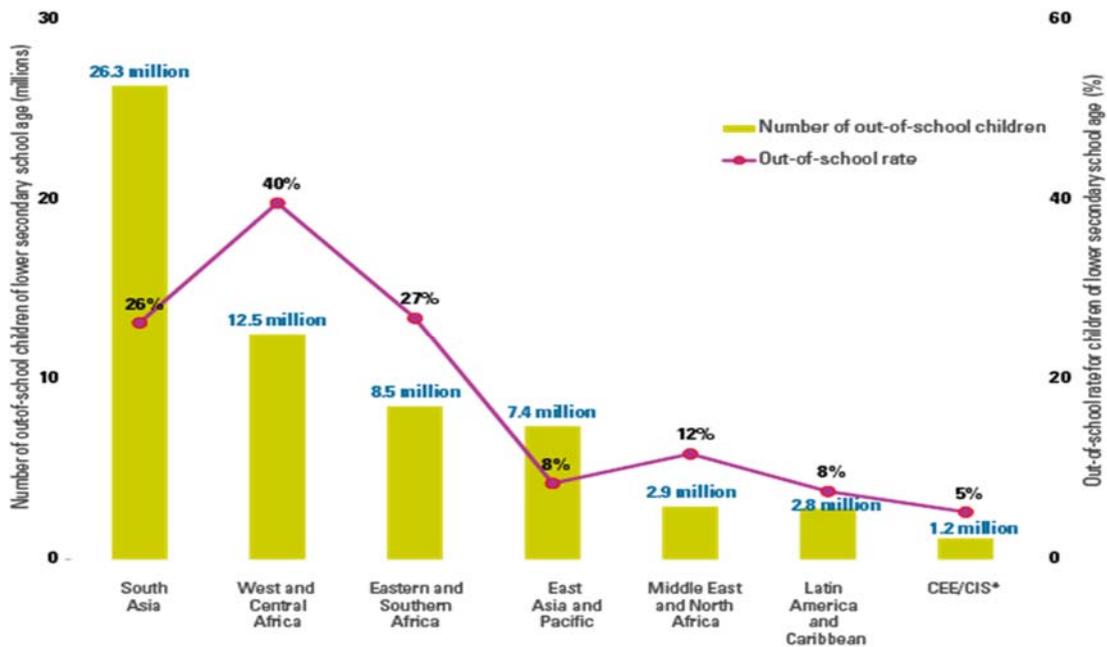
The importance of studying child labour is associated with the consequences of the danger of these participating children being involved in the exploitative activities they are forced to do against their personal wish. Labour that involved children is all about disinvestment on the process of human capital development, as well as a greater sacrifice on the intellectual progress of the children which inhibit the possibility of them to play important roles in future as adults (Psacharopoulos, 1997).



**Figure 1.5 : Out-of-school children of primary school by region 2012**

Note. CEE/CIS: Central and Eastern Europe and the Commonwealth of Independent States.(Source: - UNICEF, 2014)

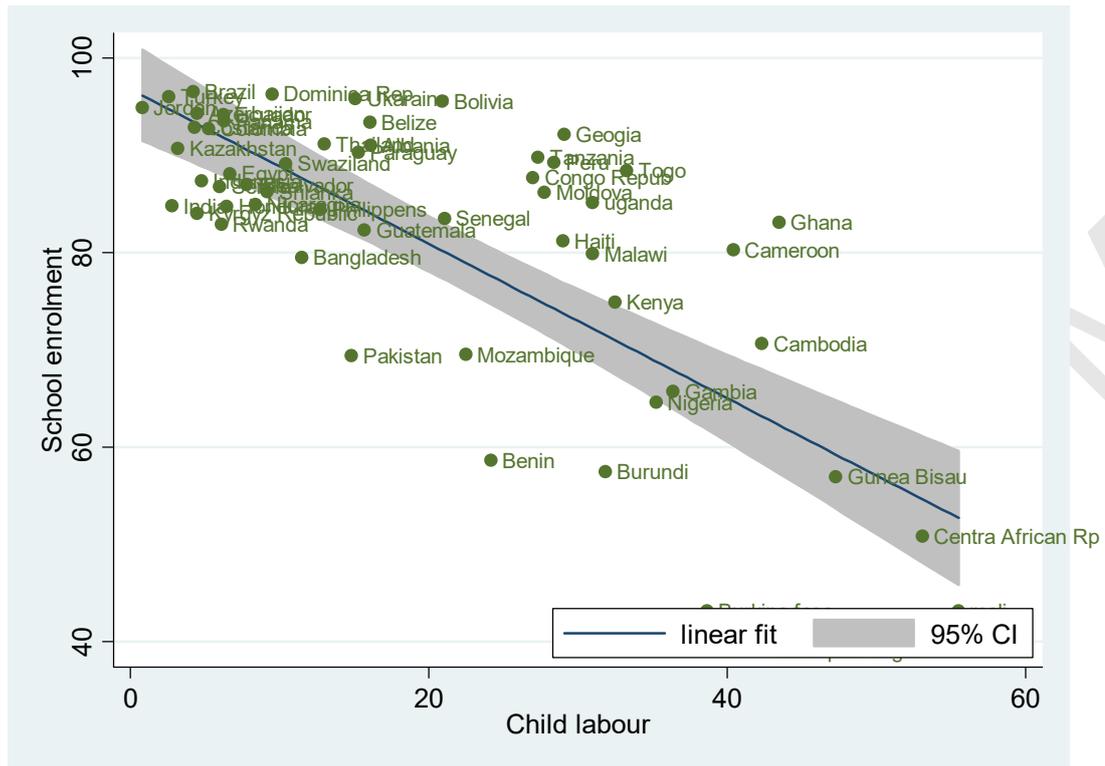
Figure 1.5 indicates that according to the global estimates, 73 percent of primary-school children or equivalent to 55.6 million children, were dropout from primary schools resulting from their involvement in various forms of child labour activities during the year 2012. This development seems to generate serious fear among scholars and Governments of developing countries and if the current situation is maintained, it will be relatively hard to achieve the millennium development goals (MDGs) target of providing the entire children with universal basic education, an action which is capable of assisting in enhancing human capital development. The challenge is most serious in west and central Africa, where an estimated 18.8 million children dropout of school (See Figure 1.5). Even though, it was reported by the UNICEF that the number of out-of-school children of primary school age dropped globally from 102 million to 55.6 million between 2000 and 2014, the aggregate figure is still worrying and requires urgent action to be taken to address the situation as it has greater effect on human capital development as well as future productivity of labour (UNICEF, 2014).



**Figure 1.6 : Out-of-school children of lower secondary school by region 2012**

Note. CEE/CIS: Central and Eastern Europe and the Commonwealth of Independent States.(Source:-UNICEF, 2014)

Similarly, Figure 1.6 indicated an estimated 61.6 million children of the lower secondary schools were out of school due to their involvement in child labour. The statistics further explained that the highest percentage of the lower secondary school children that were out of school were from south Asia. In these regions, about one third of lower secondary-school children are not in school. In Nigeria, for example the out-of-school rate for lower secondary school students is 78 per cent, and in Pakistan the number of children out of school in lower secondary school category stood at 7 million (UNICEF, 2014).



**Figure 1.7 : Scattered plots for school enrollment and child labour in developing countries (2009-2013)**  
 (Source: Authors computation based on data from the United States Department of Labour and World Development Indicators WDI)

There exists a negative relationship between school enrollment and prevalence of child labour in developing countries as shown in Figure 1.7. The situation invariably means that, as more and more parent allow their children to engage in child labour activities; the lower will be the rate of children enrolling in schools. The situation above conforms to the findings reported in most of the literature. However, majority of the literature that supported this assertion based their research on a single country. This thesis focusses on 57 developing countries in order to see how participation of children in labour activities tends to influence the rate of enrollment in schools in developing countries.

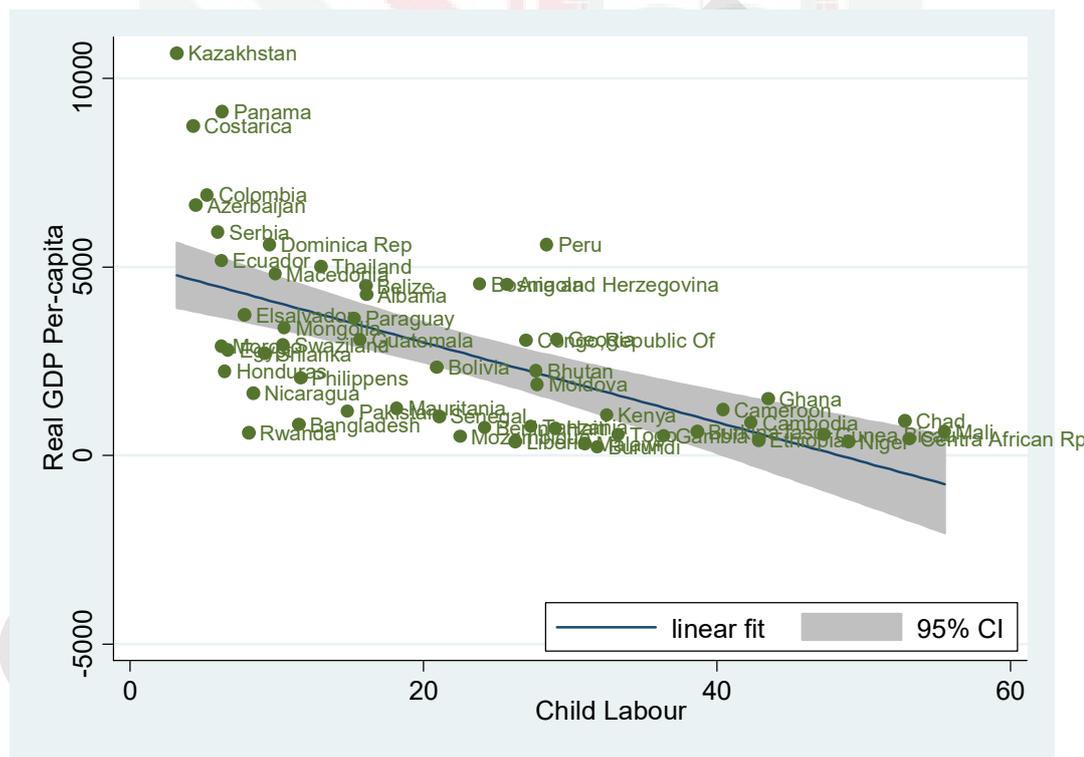
#### 1.1.4 Child labour and economic growth

The number of children that involve in children that are involved in child labour activities particularly, in most of the developing countries is high. These working children are considered both a blessing and a reason for lack of economic growth in these countries, considering the fact that widespread of children employment dampers future economic growth through its negative impact on child development and depresses growth by discouraging the adoption of skill-intensive technologies. Child employment also appears to result from lack of economic growth and positively stimulates the growth in most of the developing countries by providing the necessarily

required unskilled labour force. Rising incomes are associated with improvements in the family's ability to absorb economic shocks without child labor, shifting production outside homes, and a greater demand for education and leisure.

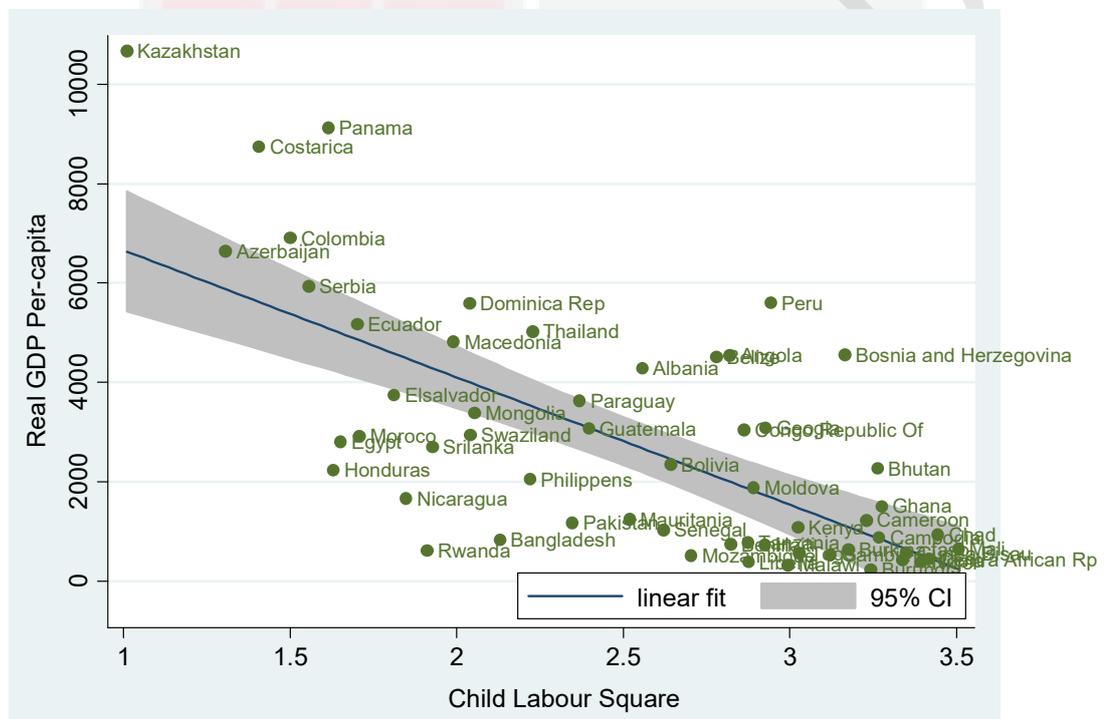
All of these factors lead to declines in the economic activity of children when income levels are on the rise. Child labor is both an issue of rights and of economic development (Edmonds, E. V., Pavcnik, N., McCaig, B., Borat, H., Kanbur, R., Stanwix, B and Press, I. Z. A. 2015).

It is expected that the impact of growth on the demand for child labour will be quadratic, with an initial increase in demand and a longer term decline. This growth of child labour relationship could be termed the child labour- Kuznet curve an inverted U-shaped relationship wherein growth will initially increase child labour by increasing the opportunities for low skilled employment but will eventually lead to a shift towards more skilled workers (Kambhampati and Rajan 2006).



**Figure 1.8 : Scattered plots for child labour and economic growth in developing countries (2009-2013)**  
 (Source: Authors computation based on data from the United States Department of Labour and World Development Indicators WDI)

Figure 1.8 shows that economic growth as proxied by Real GDP per-capita is negatively related to the prevalence of child labour in developing countries. This means that when economic growth is sustained over a period of time, child labour tends to decline in developing countries. The decline in child labour can be explained by the fact that higher economic growth is usually accompanied by improvement in income of individual households which subsequently lead to a higher standard of living. Further to that, when countries experience higher economic growth which is accompanied by higher per-capita income growth, parents are more contented, hence most of them are not willing to send their children out to work. Such outcome confirms the assumption that higher economic growth reduces poverty which subsequently decreases children's participation in labour activities and increases school enrollment, which is an important component of human capital development.



**Figure 1.9 : Scattered plots for child labour square and economic growth in developing countries (2009-2013)**

(Source: Authors computation based on data from the United States Department of Labour and World Development Indicators WDI)

In Figure 1.9 economic growth is proxied by Real GDP per-capita which is also negatively related to child labour squared based on the available data from 56 developing countries selected for the study covering 2009-2013. The fact that both Figure 1.8 and Figure 1.9 reports were negative in relation to child labour and economic growth, means that the behaviour of the data behaviour do not support the existence of the “Child Labour Kuznets Curve”. This scenario provided a justification to further investigate the matter since the data do not show a non-linear relationship between child labour and economic growth. This study is of paramount importance considering the fact that, it will explore the actual interrelations existing between child

labour and economic growth of developing countries. This will greatly assist policy makers with adequate information on whether child labour stimulates economic growth or not.

## 1.2 Statement of the Research Problems

This research study is initially motivated by the fact that most of the developing countries, particularly in Asia and Pacific as well as Africa have been confronted with child labour problems over the years. The growing rate of child labour in the past had made the international communities to adopt several policies which include; banning child labour through legislation as well as banning importation of products produced using child labourers. This has led to the recent decrease in the child labour trends globally with regards to the number of children participating in child labour activities as well as the child labour incidence (see figure 1.1 and figure 1.2).

Nevertheless, the slow rate of decline in child labour is insufficient to guarantee complete elimination of the problem by 2016 as advocated by the Hague global child labour conference of 2010 (See Figure 1.1). Evidently, literature(s) have shown a link between poverty and child labour in developing countries which indicated that most of the children participating in labour activities come from vulnerable and poor families. (Basu, K., Das, S., and Dutta, B. 2010; Nkamleu, 2006 and Dayioglu, 2006).

Similarly, despite the concerted efforts made by these countries over the years, the number of children that engaged in child labour activities in developing countries is still high and it requires something urgently to be done over the issue. Through empirical investigation on how poverty influences children participation in child labour in developing countries will determine whether luxury axiom which stated that poverty of parents really exerts a negative influence on child labour prevalence uphold or otherwise. Although, researches were conducted previously that explored the poverty influence on child labour prevalence, a handful literature existed on cross country basis regarding the issue.

Second, the wide spread of child labour syndrome across most of the developing countries challenge the capacity of various governments in the developing countries to meet the millennium development goal (MDGs) of ensuring that all children should acquire basic at least the education at primary and lower secondary education levels. Available evidence suggests that most of the children in the developing countries that are affected by child labour are those with primary and lower secondary schools. (UNICEF, 2014). The incessant drop out of primary school pupils as well as lower secondary students in most of the developing countries is a clear testimony of the fact that developing countries are impeded in their quest towards realisation of the millennium development goals (MDGs) target (see Figure 1.4 and Figure 1.5).

However, the recent effort made by various governments in developing countries to implement educational policies and programmes which improve the level of school

enrollment through provision of basic infrastructures that will ensure availability of affordable basic education at the door step of the vulnerable children yielded positive results. Though, available information revealed that the school enrollment in these countries are still below the required target and if left unchecked, future of the child's education and thus human capital development in these countries would be at stake. Efforts have been made previously in highlighting the possible impact of school enrollment on child labour prevalence. However, most of the literature on the issue based their analysis on single country. Therefore, there is a need to empirically examine how children participation in child labour activities affects the children enrollment rate in school, as such action can impede human capital development in those countries.

The relatively low income parent is seen to be the factor that motivates them to send their children to work and generally poverty in the developing countries culminates to a slower economic growth in virtually the entire of the developing countries across the globe. It is obvious that when child labour is completely eradicated and replaced by children enrollment into schools, world economies especially the developing countries tends to benefit by recording increase in their aggregate growth of national income (See Figure 1.3). This will go a long way in ensuring a sustained economic growth of these countries. Slower economic growth tends to have a multiplier effect on virtually all sectors of the economies in the developing countries.

It is interesting to note that despite of the growing awareness of the negative consequences of child labour on the future productivity of labour as well as economic growth; its incidence is still high mostly in developing countries. The persistence of child labour in developing countries must not be neglected. This might explain the reason behind the gloomy performance of such countries in terms of economic growth and development. Literatures that exist on child labour have been based on theoretical conclusion with only few empirical studies, majority of which dwelled on single country perspective. For instance Kambhampati and Rajan (2006) conceptualized the model of "Child Labour Kuznets Curve" which indicated a non-linear form of relationship between child labour and economic growth using data from India, but that could not be established empirically. Thus this arise to the need to examine the influence of child labour on the growth of developing countries slated for the study with a view to see whether a non-linear relationship exist between child labour and economic growth using data from 56 developing countries or otherwise

### **1.3 Research Questions**

1. What is the effect of poverty in explaining child labour participation rate in developing countries?
2. What is the effect of child labour prevalence on the rate of school enrollment in the developing countries?
3. What are/is the effect of child labour prevalence on economic growth of the developing countries?

#### **1.4 Objectives of the Study**

The debate on the poverty influence on child labour prevalence, the impact of child labour on school enrollment as a major determinant of human capital development as well as the impact of child labour on economic growth largely remains an unresolved issue because few empirical studies exist. The study objectives are as follows:

1. To assess the impact of poverty on child labour prevalence in developing countries.
2. To examine the effect of child labour prevalence on school enrollment in developing countries.
3. To evaluate the effect of child labour on economic growth in developing countries.

#### **1.5 Significance of the Study**

The widespread of the child labour prevalence in developing countries has made this research imperative considering the fact that child labour issue is central among the most pressing discussed issues globally. Its relevance stems from the effect of poverty on the prevalence of child labour, future productivity of labour, human capital development as well as economic progress of the affected countries. Studies that delved into the menace of child labour would be considered highly relevant particularly in developing countries where the problem is more severely noticed.

This thesis contributes to the existing literature in three different ways though, closely related perspectives. First, only a few empirical studies on the effect of poverty on child labour prevalence in developing countries exist in the literature. This study unlike in the previous study which considered the indirect role of poverty in resolving child labour prevalence via remittance inflows as it assisted in mitigating the effect of child labour (see Ebeke, 2012), considered the direct influence of poverty in stimulating the growth of child labour prevalence or otherwise in the developing countries selected for the study. The previous studies mostly relied on data from single countries and based their analysis on traditional panel analysis. (see Dumas, 2007; and Basu, Das, and Dutta 2010). This study will add to the existing literature by viewing the issue from macro perspective by pooling data from a sample of 55 developing countries, to examine the impact of poverty on child labour prevalence in developing countries using a dynamic panel frame work.

Therefore, the result of the study will bring governments of developing countries to lime light concerning poverty as a factor stimulating parent to allow their children into child labour. This will enable governments to come up with laudable programmes and policies towards poverty alleviation with the aim of deterring parents from sending their children to child labour. Poverty over the years has threaten the survival of mankind across the globe particularly in developing countries and if programmes to alleviate poverty are not sponsored by the governments, poor families would be left without option other than to engage their children into child labour activities in order to supplement their earning which is mostly considered by parent inadequate. Hence,

this study is of paramount importance considering the fact that, it will explore the presence of actual interrelations between child labour and poverty at cross country levels by pooling data from 55 developing countries using a dynamic frame work. Some policies implication could be drawn from this study which can assist policy makers not only in providing adequate information on child labour in these countries, but also the study will propose feasible and practical solutions to mitigate the problem of child labour with a view to come up with laudable solutions to the menace.

Second, children participation in labour activities as a means of influencing the rate at which children enrolled in schools, an action which is seen as an important catalyst for stimulating human capital development in the countries slated for the study is examined. Contrary to the previous studies who mostly viewed the impact of child labour on school enrollment using data on single country survey and focused their analysis virtually on static analysis. ( see Heady, 2003; Bhalotra and Heady, 2003; Edmonds, 2006; Asaad et al., 2001; Beegle, Dehejia, and Gatti 2004), this study extends beyond earlier studies by pooling data from 57 developing countries, using a dynamic framework.

Therefore, the result of this study would reveal picture of child labour activities as its affect the rate of children enrollment in schools, an action which will greatly assist parents to desist from such activities. This will enable them to lend support to programmes and policies of governments and NGOs aimed at eradicating the menace of child labour and promotion of school enrollment, which in a way will assist in improving the level of human capital development in developing countries. Without children being enrolled in schools the required level of human capital development will not be achieved.

Third, the debate on whether child labour affects economic growth among scholars is still ongoing. Unlike in previous studies (see Kambhampati and Rajan, 2006). This study incorporates child labour into the human capital augmented model of Mankiw et al., (1992) and Slesman, (2014) with a view to assess impact of child labour prevalence on the growth of developing countries using a non-linear frame work. Instead of focusing attention on single country with a view to see the effect of child labour on economic growth as has been the case for most of the literature, this study in order to comprehensively address the issue, pooled data from 56 developing countries in order to see the possibility of an inverted U shape relationship between child labour and economic growth which was not established empirically by Kambhampati and Rajan (2006) using single country analysis. Furthermore, previous studies relied on static models, in an attempt to empirically establish the influence of child labour as its affects economic growth of the studied country, (see Swaminathan, 1998; Hazan and Berdugo, 2002; Edmonds, 2005; Neumayer and De soysa, 2005). However, as a contribution of this study to increase the horizon of knowledge, a dynamic panel analysis was employed to assess the macro effect of child labour prevalence on the growth of developing countries.

## **1.6 Scope and Limitation of the Study**

This study was based on the children that participate in child labour between the ages of 5 to 14 years in the developing countries selected for the study. Similarly, 55 developing countries were selected to achieve the objective which assess the impact of poverty on child labour prevalence in developing countries. While 57 developing countries were used to achieve the objective which examine the effect of child labour prevalence on school enrollment in developing countries. Last but not the least 56 developing countries were used in achieving the objective which evaluate the effect of child labour prevalence on economic growth in developing countries.

Similar to other studies, this study is as well constrain by data inadequacy particularly on the two main variables child labour and poverty. This limit the scope of the study to cover a reasonably longer period of time across developing countries.

## **1.7 Organization of the Study**

The thesis was organized in five chapters as follows. The first chapter centered on the background information regarding the study with special focus on the relationship between child labour, poverty, school enrollment and economic growth in the study areas, statement of the research problems, research questions, research objectives, as well as the significance of the study. The second chapter was devoted to literature review which provided an overview of both theoretical and empirical literature on the relationship between poverty and child labour prevalence in developing countries. Similarly, theoretical as well as empirical literature on child labour and school enrollment was also discussed under the second chapter, theoretical and empirical literature concerning child labour and economic growth was discussed. Lastly methodological review was discussed in this chapter as well.

Chapter three centered on the research methodology adopted for the study. Specifically, the chapter provided mathematical derivation as well as discussion on the theoretical framework which underpinned the estimation of models in relation to the three objectives. In addition the model specification was presented in relation to the entire objectives of the study. Similarly, expected signs base on theory and literature were presented in chapter three in relation to each objective as well. Furthermore, the chapter discussed data analysis method used to achieve each objective as well as the data source used in conducting the research study. Lastly, variable description in relation to the three objectives set out was discussed.

Chapter four covered the detail empirical results and discussion in relation to the three laid down objectives. Finding of the research was discussed under this chapter based on the regression analysis in relation to each of the objectives. Chapter five, provided summary of the research findings, which was subsequently followed by summary of the major findings of the research based on individual objective. Limitations of the study and future research direction were also discussed in this chapter. Similarly, policy recommendations of the study were discussed here.

## REFERENCES

- Admassie, A. (2003). Child labour and schooling in the context of a subsistence rural economy: Can they be compatible? *International Journal of Educational Development*, 23(2), 167-185.
- Ahmed, H. (2012). The Impact of Public School Enrolment on Child Labor in Punjab. *The Lahore Journal of Economics*, 17(2), 1–34.
- Ahn, S. C., and Schmidt, P. (1995). Efficient estimation of models for dynamic panel data. *Journal of Econometrics*, 68(1), 5-27.
- Akabayashi, H., and Psacharopoulos, G. (1999). The trade-off between child labour and human capital formation: A Tanzanian case study. *The Journal of Development Studies*, 35(5), 120-140.
- Andersen, L., and Babula, R.(2008). The link between openness and long-run Economic Growth. *Journal of International Commerce and Economics*, 2(1), 31-50.
- Anker, R. (2000). The economics of child labour: A framework for measurement. *International Labour Review*, 139(3), 257-280.
- Arellano, M., and Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, 58(2), 277-297.
- Arellano, M., and Bover, O. (1995). Another look at the instrumental variable estimation of error-components models. *Journal of Econometrics*, 68(1), 29-51.
- Arezki, R., and Brückner, M. (2012). Rainfall, financial development, and remittances: Evidence from Sub-Saharan Africa. *Journal of International Economics*, 87(2), 377-385.
- Assaad, R., and Zibani, D. L. (2001). *The Effect of Child Work on School Enrollment in Egypt*. Working Paper no 0111, Cairo: Economic Research Forum.
- Assaad, R., Levison, D., and Zibani, N. (2007). The effect of child work on schooling: Evidence from Egypt. *Minnesota Population Center (MPC) Working Paper*, Minneapolis, Minnesota.
- Baltagi, B. H., Song, S. H., and Koh, W. (2003). Testing panel data regression models with spatial error correlation. *Journal of Econometrics*, 117(1), 123-150.
- Baltagi, B. H., Demetriades, P. O., and Law, S. H. (2009). Financial development and openness: Evidence from panel data. *Journal of Development Economics*, 89(2), 285-296.

- Barro, R. (1989). *Economic Growth in A Cross Section of Countries*. Cambridge: National Bureau of Economic Research.
- Barro, R. J. (2003). Religion and Economic Growth across Countries. *American Sociological*, 68(5), 760-781.
- Barro, R. J. (2010). *A New Data Set of Educational Attainment in The World, 1950–2010*. NBER Working Paper No. 15902. Cambridge.
- Barro, R. J., and Lee, J. W. (2013). A new data set of educational attainment in the world, 1950–2010. *Journal of Development Economics*, 104(1), 184-198.
- Basu, K., and Van, P. (1998), The Economics of child labor, *American Economic Review*, 4(1), 412-427.
- Basu, K. (1999). Child labor: Cause, consequence, and cure, with remarks on international labor standards. *Journal of Economic literature*, 37(3), 1083-1119.
- Basu, K., and Tzannatos, Z. (2003) The global child labor problem: What do we know and what can we do?" *World Bank Economic Review*, 17(2) 147-173.
- Basu, K., Das, S., and Dutta, B. (2010). Child labor and household wealth: Theory and empirical evidence of an inverted-U. *Journal of Development Economics*, 91(1), 8-14.
- Backer, G.S (2009). *Human capital: A theoretical and empirical analysis, with special reference to education* (Third edition ed.). London: The University of Chicago Press.
- Becker, G. S. (1997). Is there any way to stop child labor abuses. *Business Week*, 12(1), 12-42.
- Becker, G. S. (1994). *Human Capital, Fertility, and economic growth* (Third edition). London: The University of Chicago Press.
- Beegle, K., Dehejia, R., and Gatti, R. (2004). Why should we care about child labor. *The education, labor market and health*. NBER Working Paper No. 10980.
- Bellamy, C. (1997). *The State of the World's Children 1997*: Oxford: Oxford University Press for UNICEF.
- Belsley, D. A. (1980). *Regression Diagnostics identifying Influential Data and Sources of Collinearity*. Massachusetts: John Wiley & Sons.
- Bhalotra, S. (2007). Is child work necessary?. *Oxford Bulletin of Economics and Statistics*, 69(1), 29-55.
- Bhalotra, S., and Heady, C. (2003). Child farm labor: The wealth paradox. *The World Bank Economic Review*, 17(2), 197-227.

- Blunch, N.H. (2001). *Revisiting the Link Between poverty and child labour: The Gahnian experience*. Copenhagen: Center for labour market and social science research.
- Blundell, R., and Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, 87(1), 115-143.
- Buchmann, C. (2000). Family structure, parental perceptions, and child labor in Kenya: What factors determine who is enrolled in school? *Social Forces*, 78(4), 1349-1379.
- Brown, D. K., Stern, A. V., & Stern, R. M. (2002). *The Determinants of Child Labor: Theory and evidence*. Michigan: Research Seminar in International Economics.
- Canagarajah, S., and Coulombe, H. (1997). Child labor and schooling in Ghana. *World Bank Policy Research Working Paper*, (1844).
- Caselli, F., Esquivel, G., and Lefort, F. (1996). Reopening the convergence debate: a new look at cross-country growth empirics. *Journal of Economic growth*, 1(3), 363-389.
- Chandrasekhar, C. (1997). The economic consequences of the abolition of child labour: An Indian case study. *The Journal of Peasant Studies*, 24(3), 137-179.
- Chakraborty, S., and Das, M. (2003). Mortality, fertility and child labor. *Economics Letters* 86(2), 273-278.
- Chakraborty, C., & Nunnenkamp, P. (2008). Economic reforms, FDI, and economic growth in India: a sector level analysis. *World development*, 36(7), 1192-1212.
- Cingo, A., Rosati, F. C., and Tzannatos, Z. (2000). *Child Labor Handbook*: New York: World Bank.
- Cockburn, J. (2001). Child labour versus education: Poverty constraints or income opportunities?. *Center for the Study of African Economies, Oxford University*, 17(1), 1-32.
- Corak, M. (2006). Do poor children become poor adults? Lessons from a cross country comparison of generational earnings mobility. Bonn: Institute for the Study of Labor
- Couralet, P. E. (2000). *Child Labor and Economic Growth* (No. 2000-61).
- Cunningham, H., and Viazzo, P. P. (1996). *Child Labour in Historical Perspective 1800-1985: Case Studies from Europe, Japan and Colombia*.
- Das, S., and Suganthan, P. N. (2011). Differential evolution: a survey of the state-of-the-art. *IEEE transactions on evolutionary computation*, 15(1), 4-31.

- Davies, R. B., and Voy, A. (2009). The effect of FDI on child labor. *Journal of Development Economics*, 88(1), 59-66.
- Dayioğlu, M. (2006). The impact of household income on child labour in urban Turkey. *Journal of Development Studies*, 42(6), 939-956.
- Dehejia, R. H., and Gatti, R. (2005). Child labor: The role of financial development and income variability across countries. *Economic Development and Cultural Change*, 53(4), 913-932.
- Dornbusch, R., and Fischer, S. (1993). Moderate inflation. *The World Bank Economic Review*, 7(1), 1-44.
- Doytch, N., and Uctum, M. (2011). Does the worldwide shift of FDI from manufacturing to services accelerate economic growth? A GMM estimation study. *Journal of International Money and Finance*, 30(3), 410-427.
- Doytch, N., Thelen, N., and Mendoza, R. U. (2014). The impact of FDI on child labor: Insights from an empirical analysis of sectoral FDI data and case studies. *Children and Youth Services Review*, 47, 157-167.
- Dumas, C. (2007). Why do parents make their children work? A test of the poverty hypothesis in rural areas of Burkina Faso. *Oxford Economic Papers*, 59(2), 301-329.
- Dufour, J. M., Pelletier, D., & Renault, É. (2006). Short run and long run causality in time series: inference. *Journal of Econometrics*, 132(2), 337-362.
- Ebeke, C. H. (2012). The power of remittances on the international prevalence of child labor. *Structural Change and Economic Dynamics*, 23(4), 452-462.
- Edmonds, E. V. (2005). Does child labor decline with improving economic status? *Journal of Human Resources*, 40(1), 77-99.
- Edmonds, E. V. (2006). Child labor and schooling responses to anticipated income in South Africa. *Journal of Development Economics*, 81(2), 386-414.
- Edmonds, E. V., and Pavcnik, N. (2005). Child labor in the global economy. *The Journal of Economic Perspectives*, 19(1), 199-220.
- Edmonds, E. V., and Pavcnik, N. (2006). International trade and child labor: cross-country evidence. *Journal of International Economics*, 68(1), 115-140.
- Edmonds, E. V., Pavcnik, N., McCaig, B., Bhorat, H., Kanbur, R., Stanwix, B. (2015). *Economic Growth and Child Labor in Low Income Economies*. I. Z. A Press
- Fan, C. S. (2011). The luxury axiom, the wealth paradox, and child labor. *Journal of Economic Development*, 36 (3), 25-45.

- Flug, K., Spilimbergo, A., and Wachtenheim, E. (1998). Investment in education: do economic volatility and credit constraints matter? *Journal of Development Economics*, 55(2), 465-481
- Freund, C., and Spatafora, N. (2008). Remittances, transaction cost and informality. *Journal of Development Economics*, 86(2), 356-366.
- Gallup, J. L., Sachs, J. D., and Mellinger, A. D. (1999). Geography and economic development. *International Regional Science Review*, 22(2), 179-232.
- Gaston, N., and Nelson, D. (2002). Integration, foreign direct investment and labour markets: microeconomic perspectives. *The Manchester School*, 70(3), 420-459.
- Gillis, M., Perkins, D. H., Roemer, M., & Snodgrass, D. R. (1992). *Economics of Development* (No. Ed. 3). WW Norton & Company, Inc.
- Goldin, C. (1979). Household and market production of families in a late nineteenth century American city. *Explorations in Economic History*, 16(2), 111-131.
- Greene, J. D., Morelli, S. A., Lowenberg, K., Nystrom, L. E., & Cohen, J. D. (2008). Cognitive load selectively interferes with utilitarian moral judgment. *Cognition*, 107(3), 1144-1154.
- Hales, D., Rouchier, J., and Edmonds, B. (2003). Model-to-model analysis. *Journal of Artificial Societies and Social Simulation*, 6(4), 45-60.
- Hartl, M. (2006). *Reducing Vulnerability of the Girl Child in Poor Rural Areas. Activities of the International Fund for Agricultural Development*. Rome: International Fund for Agricultural Development (IFAD).
- Hassapis, C., Pittis, N., & Prodromidis, K. (1999). Unit roots and Granger causality in the EMS interest rates: the German dominance hypothesis revisited. *Journal of International Money and Finance*, 18(1), 47-73.
- Hazan, M., and Berdugo, B. (2002). Child labour, fertility, and economic growth. *The Economic Journal*, 112(482), 810-828.
- He, H. (2016). Child labour and academic achievement: Evidence from Gansu Province in China. *China Economic Review*, 38(1), 130-150.
- Heady, C. (2003). The effect of child labor on learning achievement. *World Development*, 31(2), 385-398.
- Holgado, D., Maya- Jariego, I., Ramos, I., Palacio, J., Oviedo Trespalcios, Ó., Romero-Mendoza, V., and Amar, J. (2014). Impact of child labor on academic performance: Evidence from the program “Educame Primero Colombia”. *International Journal of Educational Development*, 34(1), 58-66.

- Holtz-Eakin, D., Newey, W., and Rosen, H. S. (1988). Estimating vector autoregressions with panel data. *Econometrica: Journal of the Econometric Society*, 24(1)1371-1395.
- Hoover, K. D., and Perez, S. J. (2004). Truth and robustness in cross country Growth regressions. *Oxford bulletin of Economics and Statistics*, 66(5), 765-798.
- Horton, P. B., McConney, A. A., Gallo, M., Woods, A. L., Senn, G. J., & Hamelin, D. (1993). An investigation of the effectiveness of concept mapping as an instructional tool. *Science Education*, 77(1), 95-111.
- Hsiao, C. (2014). *Analysis of panel data* (No. 54). Cambridge: Cambridge university press.
- Ibrahim, M. H., and Law, S. H. (2014). Social capital and CO 2 emission—output relations: a panel analysis. *Renewable and Sustainable Energy Reviews*, 29(1), 528-534.
- ILO, (2003). Investing in every child, international programme on the elimination of child labour.
- ILO-IPEC, (2013). International programme on the elimination of child labour.
- ILO, (2013). Marking progress against child labour, global estimates and trends 2000-2012.
- Jayaraj, D., and Subramanian, S. (2007). Out of School and (Probably) in Work Child Labour and Capability Deprivation in India. *Journal of South Asian Development*, 2(2), 177-226.
- Jensen, P., and Nielsen, H. S. (1997). Child labour or school attendance? Evidence from Zambia. *Journal of Population Economics*, 10(4), 407-424.
- Katseli, L. T., and Glytsos, N. P. (1989). Theoretical and empirical determinants of international labour mobility: A Greek-German perspective. *European factor mobility*, 23(1), 95-115.
- Kambhampati, U. S., and Rajan, R. (2006). Economic growth: A panacea for child labor? *World Development*, 34(3), 426-445.
- Kambhampati, U. S., and Rajan, R. (2005). Does child work decrease with parental income? The luxury axiom revisited in India. *The European Journal of Development Research*, 17(4), 649-680.
- Khanam, R. (2005). Impact of child labour on school attendance and school attainment: Evidence from Bangladesh. *Population Association of America Annual Meeting (PAA 2005)* (pp.1-40). Brisbane: University of Southern Queensland.

- Khanam, R. (2008). Child labour and school attendance: evidence from Bangladesh. *International Journal of Social Economics*, 35(1), 77-98.
- Kim, C. Y. (2009). Is combining child labour and school education the right approach? Investigating the Cambodian case. *International Journal of Educational Development*, 29(1), 30-38.
- Kim, J., and Zepeda, L. (2004). Factors affecting children's participation and amount of labor on family farms. *Journal of safety research*, 35(4), 391-401.
- Kruger, D.I. (2007), "Coffee Production Effects on Child Labor and Schooling in Rural Brazil," *Journal of Development Economics*, 82(2), 448-463.
- Levine, R., and Renelt, D. (1992). A sensitivity analysis of cross-country growth regressions. *The American economic review*, 13(1), 942-963.
- Lima, L. R., Mesquita, S., and Wanamaker, M. (2015). Child labor and the wealth paradox: The role of altruistic parents. *Economics letters*, 130(1), 80-82.
- Manacorda, M., and Rosati, F. C. (2007). Local labor demand and child labor. *Understanding children's work programme working paper*, 1-7.
- Mankiw, N. G., Romer, D., and Weil, D. N. (1990). *A contribution to the empirics of economic growth* (No. w3541). New York: National Bureau of Economic Research.
- Masuhama, M. (2006). *Macro Analysis of Child Labor and School Enrollment* (Doctoral dissertation, University of Pittsburgh).
- McClintock, B. (1999). The multinational corporation and social justice: Experiments in supranational governance. *Review of Social Economy*, 57(4), 507-522.
- Naeem, Z., Shaukat, F., & Ahmed, Z. (2011). Child labor in relation to poverty. *International journal of health sciences*, 5(2), 48-56.
- Neumayer, E., and De Soysa, I. (2005). Trade openness, foreign direct investment and child labor. *World Development*, 33 (1), 43-63.
- Nickell, S. (1981). Biases in dynamic models with fixed effects. *Econometrica: Journal of the Econometric Society*, 16(1), 1417-1426.
- Nkamleu, G. B. (2006). Poverty and Child Farm Labor in Africa: Wealth Paradox or bad Orthodoxy. *African Journal of Economic Policy*, 13(1), 1-24.
- Okunmadewa, F., Olaniyan, O., Yusuf, S. A., Bankole, A. S., Oyeranti, O. A., Omonona, B. T., & Kolawole, K. (2005). Human capital, institutions and poverty in rural Nigeria. *Report submitted to AERC*.

- Patrinós, H. A., and Psacharopoulos, G. (1997). Family size, schooling and child labor in Peru—An empirical analysis. *Journal of population economics*, 10(4), 387-405.
- Peter, F., and Zafiris, T. (1998). Child Labor: Issues and Directions for the World Bank. *Washington DC, World Bank*.
- Ranjan, P. (1999). An economic analysis of child labor. *Economics Letters*, 64(1), 99-105.
- Ray, R. (2000). Child labour, child schooling and their interaction with adult labour. Empirical evidence for Peru and Pakistan. *The World Bank Economic Review*. 14 (2), 347-367.
- Rosati, F. C., and Rossi, M. (2003). Children's working hours and school enrollment: Evidence from Pakistan and Nicaragua. *The World Bank Economic Review*, 17(2), 283-295.
- Rosenzweig, M. R., and Evenson, R. (1977). Fertility, schooling, and the economic contribution of children of rural India: An econometric analysis. *Econometrica: journal of the Econometric Society*, 32(1), 1065-1079.
- Slesman, L.Y.(2014). Market supporting institutions and the effects of foreign direct investment, inflation and inflation volatility on economic growth. Unpublished thesis, Universiti Putra Malaysia.
- Swaminathan, M. (1998). Economic growth and the persistence of child labor: Evidence from an Indian city. *World Development*, 26(8), 1513-1528.
- Todaro, M. P. (1992). *Economics for a developing world: An introduction to principles, problems and policies for development*. London: Longman.
- Tompa, E.(2002). The impact of health on productivity: Empirical evidence and policy implications *the review of economic performance and social progress*, 2(1), 13-27.
- UNICEF statistics,(2014). Education, primary and lower secondary education.
- Vandenberg, P., and Creation, J. (2006). Poverty reduction through small enterprises. *SEED Working paper*, 75(1), 1-60.
- Weiner, M. (1991). *The child and the state in India*. Princeton: Princeton University Press.
- Zabaleta, B. M. (2011). The impact of child labor on schooling outcome in Nicaragua. *Economics of Education Review*, 30(6), 1527-1539.

## LIST OF PUBLICATIONS

As part of the requirements for the award of Doctorate degree in University Putra Malaysia, PhD candidate must published articles in a reputable journal across the globe. In view of the aforementioned, bellow listed are the journal articles by the candidate published within the PhD study period.

Idris Isyaku Abdullahi, Zaleha Mohd Noor, Rusmawati Said and Ahmad Zubaidi Baharumsha. Does Poverty Influence Prevalence of Child Labour in Developing Countries? *International Journal of Economics and Financial Issues*. 2016, 6(1), 7-12

Idris Isyaku Abdullahi and Zaleha Mohd Noor. The impact of Economic Growth on Child Labour in Developing Countries. *Journal of Economics and Sustainable Development* Vol 6, N0.12, 2015. 206-212.

Idris Isyaku Abdullahi and Hamisu Sadi Ali. Impact of Remittance Inflows on Child Labour Prevalence in Developing Countries: An Application of System- GMM Approach. *International Journal of Economics, Commerce and Management*. Vol 3, No.9, 2015. 499-508.

Hamisu Sadi Ali and Idris Isyaku Abdullahi. Foreign Direct Investment and the Growth of the Nigerian Economy: ARDL Bound Testing Approach. *International Journal of Economics and Business Research*. Vol 2, No.3. 2015. 122-132.

Idris Isyaku Abdullahi and Chindo Sulaiman. The determinants of Small and Medium-Size Enterprises Performances in Nigeria. *Advances in Economics and Business*. 3(5): 184-189, 2015.

Idris Isyaku Abdullahi, Zaleha Mohd Noor Rusmawati Said and Ahmad Zubaidi Baharumshah. Impact of too much child labour on economic Growth of Sub-Saharan African Countries: A Threshold analysis. *International Journal of Applied Business and Economic Research* (Accepted).

Idris Isyaku Abdullahi, Zaleha Mohd Noor, Wan Liyana Maria Wan Zainal Abidin and Aiza Liyana Bt Anuar. Impact of child labour prevalence on school enrollment in developing countries. *International Journal of Economics and Financial Issues* (Under review).

### Conference Proceedings

Idris Isyaku Abdullahi and Zaleha Mohd Noor. The linkage between poverty and child labour prevalence: Evidence from 55 developing countries. 6<sup>th</sup> Global conference forum for Economist. Kuala Lumpur/Putrajaya Malaysia.



**UNIVERSITI PUTRA MALAYSIA**

**STATUS CONFIRMATION FOR THESIS / PROJECT REPORT AND COPYRIGHT**

**ACADEMIC SESSION:** \_\_\_\_\_

**TITLE OF THESIS / PROJECT REPORT:**

ECONOMIC RELATIONSHIP BETWEEN CHILD LABOUR, POVERTY, SCHOOL ENROLMENT AND ECONOMIC GROWTH IN DEVELOPING COUNTRIES

**NAME OF STUDENT :** IDRIS ISYAKU ABDULLAHI

I acknowledge that the copyright and other intellectual property in the thesis/project report belonged to Universiti Putra Malaysia and I agree to allow this thesis/project report to be placed at the library under the following terms:

1. This thesis/project report is the property of Universiti Putra Malaysia.
2. The library of Universiti Putra Malaysia has the right to make copies for educational purposes only.
3. The library of Universiti Putra Malaysia is allowed to make copies of this thesis for academic exchange.

I declare that this thesis is classified as :

\*Please tick (v )

**CONFIDENTIAL**

(Contain confidential information under Official Secret Act 1972).

**RESTRICTED**

(Contains restricted information as specified by the organization/institution where research was done).

**OPEN ACCESS**

I agree that my thesis/project report to be published as hard copy or online open access.

This thesis is submitted for :

**PATENT**

Embargo from \_\_\_\_\_ until \_\_\_\_\_  
(date) (date)

**Approved by:**

\_\_\_\_\_  
(Signature of Student)  
New IC No/ Passport No.:

Date :

\_\_\_\_\_  
(Signature of Chairman of Supervisory Committee)  
Name:

Date :

**[Note : If the thesis is CONFIDENTIAL or RESTRICTED, please attach with the letter from the organization/institution with period and reasons for confidentially or restricted. ]**