

Foreign Direct Investment, Social Factors & Poverty Reduction In West Africa (1980-2015)

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Abstract

The study investigated the effect of Foreign Direct Investment (FDI) and social factors on poverty reduction and the joint effect of social factors and FDI on poverty reduction in West Africa, between 1980 and 2015. Ordinary Least Square (OLS), Mean Group estimator, Common Correlated Effects Mean Group estimator (CCEMG), and Average correlation coefficients (ACC) methods were used for the analysis of the data collected. The results show that FDI reduced poverty in West Africa. These results were not statistically significant when OLS and CCEMG methods were used, but it was significant when ACC method was used. We found that population that is working reduced poverty, while population not working promoted poverty level. This result was statistically significant under the non-working population. Life expectancy on its own failed to reduce poverty except on the average and when CCEMG method was used and the result was statistically significant. Our results also show that working population, and life expectancy rate enhanced the performance of FDI in reducing poverty in West Africa. The study suggested that improvement in social factors as well as provision of employment for the non working population in West African Countries will go a long way in reducing poverty level among the populace.

Keywords: Foreign Direct Investment, Social Factors, Poverty, West Africa

1. Introduction

One of the major problems facing the world today is the problem of how to reduce poverty level. Poverty may be defined as a condition where people's basic needs for shelter, food and clothing are denied. It is the general scarcity or state of one who lacks a certain amount of material possession or resources. According to United Nations (1998), poverty is the inability of having choices and opportunities, which is regarded as a violation of human dignity. It is also regarded as lacking basic capacity to participate effectively in the society. Following the definition given by United Nations Conference on Trade and Development (UNCTAD) (2002), poverty is "a situation in which a major part of the population lives at or below income levels sufficient to meet their basic needs and in which the available resources in the economy, even when equally distributed, are barely sufficient to cater for the basic needs of the population on a sustainable basis".

Poverty is rampant in many parts of the world, including West Africa and has been of great concern, even to countries that are believed to be less affected by poverty. According to Gallup world (2013), the 10 countries with the most citizens living in extreme poverty (less than \$1.25 per day) were all in sub-Saharan African countries. Among the reasons adduced to the existence of poverty, is lack of investment which is also noted to be the consequences of inability to accumulate capital. Thus, one of the suggested ways out of this poverty trap is accumulation of capital which can be done through the encouragement of foreign direct investment (FDI). FDI is an investment made to acquire a lasting management interest (normally 10% of voting stock) in a business enterprise operating in a country other than that of the investor according to residency (World Bank, 1996). Graham (1995) also defined FDI as "an increase in the book value of the net worth of investment in one country held by investors of another country where the investments are under the managerial control of the investor". Perhaps, this is why majority of developing countries (West Africa included) try various means to encourage foreign direct investment (FDI). These means range from persuasion as well as altering some of their policies (in terms of giving tax holiday, exemption, etc.) to suit the interest of foreign investors.

Many studies have been carried out on the relationship between FDI and economic growth with mixed results (Sariso & Koc (2012)). Recently, the debate on the connection between FDI and poverty is receiving more attention based on noted fact that increased economic growth does not necessarily imply poverty reduction especially in sub-Saharan African countries. Studies in this area also have mixed results. Some of them have suggested that FDI is incapable of reducing poverty level. They associated the inability of FDI to reduce poverty with lack of institutional quality, environmental quality and financial stability of the host countries. There is also lack of empirical generality among the studies in this area.

One major problem of the above studies is their failure to consider the role of social factors as important determinants of the performance of FDI in the host countries. These studies have played down the fact that host countries differ from where the investment is coming from in terms of culture, civilization, consumption pattern, attitudes to work etc. Playing down this fact is likely to affect the results of any study that tries to study the

connection between FDI and poverty level especially in West African Countries. Studies that considered the importance of social factors only related this to investment and economic growth. For example, in the study of Harrison and Huntington (2000), it was noted that social factors help to explain the human behavior in relation to consumption, savings, investment, expectations and attitude towards the economic circumstances, and these also greatly affected economic growth.

Popa (2012) in his study, attempted to examine the impact of social factors on economic growth. He measured social factors with population at risk of poverty, unemployment rate, life expectancy and expected years of schooling. His findings showed that social factors are very important determinants of economic growth. Also, Vo & Batten (2006) for example, used a panel data modeling technique and examined the relationship between FDI and economic growth and determine whether the relationship changes under different legal, institutional, education and economic conditions. They discovered that the effect of FDI on economic growth is stronger when there is high level of education, low population growth rate, low risk, openness to international trade and stock market development. Since, it has been proven that increased economic growth does not necessarily imply reduction in poverty, this study posits that social factors (such as; Lifestyles; buying habits, education level, religion & beliefs, health consciousness, sex distribution, average disposable income level, family size & structure, saving habits, population growth rate, age distribution & life expectancy, attributes toward imported products & services.) may not only determine poverty level, but determine the performance of FDI in influencing poverty level especially in West African Countries. This study therefore examines the roles of social factors on the relationship between FDI and poverty level in West African Countries between 1980 and 2015.

The study is structured into six sections. Section one comprises the introduction; section two reviews the literature; section three presents the theoretical framework, model specification and methodology; section four deals with sources of data, description and measurement of variables; section five explains data analysis and discussion of results; while section six gives the summary, policy recommendation and conclusion of the study.

2. Literature Review

According to Adesiyun (2014), in his study where he tries to examine the relationship between FDI and poverty, by controlling for the effects of other potentially relevant variables such as government, national debt, inflation, human capital, and infrastructural, it was noted that even though Nigeria is blessed with a lot of FDI, the country still wallows in poverty. The study employed Error Correction Model (ECM) and found a short-run relationship among FDI and other observed variables. It was found that poverty reduction is positively related to FDI, government expenditure and infrastructure, but negatively related to inflation, national debts and human capital. This result suggests that FDI on its own may not necessarily reduce poverty in Nigeria. One major feature of poverty in West Africa is unequal access to basic services. This leads to inequality in educational attainment levels and health status among the people. Rural poverty is also caused by low agricultural productivity, limited ability for capital accumulation, destruction of infrastructure via conflict and insecurity.

In the study of Sathe and Handley-Schachler (2006) where they engaged in a study that showed how cultural factors affect FDI in different regions of a single developing economy, using India as a case study, it was shown that social and explicit cultural variables affect FDI flows, with urbanization being the most important factor. It was however concluded that very few social, cultural or economic factors are really important in attracting FDI. In another study done by Vo & Batten (2006), it was suggested that countries that want to attract FDI can make reforms in educational, institutional and legal areas. It was also suggested further that governments of both developed and developing countries should make policies that will encourage FDI, as it benefits the economy greatly. Some of these policies are: removal of capital barriers and other regulatory restrictions that may discourage FDI; paying more attention to legal, institutional and economic setting that may promote FDI. This study suggests that poorer countries will likely have a higher growth rate and education attainment which can affect economic growth positively and that a country with higher population growth rate will experience limited economic growth.

According to Nyankweli (2012) in his analysis on the impact of FDI on poverty alleviation, it was noted that poverty can be eliminated completely through increased economic growth while making sure that the poor gain from this growth. The study quantified the effects of the gold mining sector, as a component of FDI in Tanzania, and how it contributed to poverty alleviation in the country. The results of the study propelled more interest in attracting FDI into developing countries. In the work of Azam and Khattak (2009) where they examined the effects of social and political factors on the inflow of FDI in Pakistan, it was noted that firms want the ultimate choice of skilled and educated labour to ensure efficiency and that MNCs prefer to invest in countries where there is political and social stability, instead of one with social unrest. The study found that human capital contributes positively to FDI inflow and political instability having no significant effect on the inflow of FDI. They suggested that the government needs to improve their country's image in the international community, by maintaining a stable economic and political environment while also promoting skilled and educated labour, as this will attract more FDI and promote economic growth.

Furthermore, Awolusi (2012) examined the relationship between the international factors and economic

growth in the long-run, including the effect of FDI on domestic investment in Nigeria. The study used multivariate cointegration to investigate the long-run relationships and discovered a short-run causal effect among the variables in the country. There was also an insignificant impact of FDI on domestic investment, and apart from FDI, both domestic investment and imports affected economic growth positively in Nigeria. It was suggested that developing countries should formulate policies that will attract FDI, in order to improve infrastructure.

More so, Borensztein et al (1998) studied the effect of FDI on economic growth, using a cross-country regression framework. They discovered that FDI is very important for economic growth, as it contributed more than domestic investment to growth. However, it was pointed out that for FDI to be effective in promoting economic growth, the host country needed a minimum stock of human capital. This implies that FDI only improves economic growth when the country can absorb the advanced technologies. Thus, the role of technology diffusion in economic development was emphasized in the study. According to the work of Vu et al. (2007) where they examined the effect of FDI on economic growth, with sectoral analysis of two economies; China and Vietnam, FDI was discovered to have a positive effect on growth working directly and through labour productivity in both countries. The gains from FDI varied among sectors, with the manufacturing sector gaining the most. It was recommended that governments should focus on investing in the manufacturing and energy extraction sectors, as FDI in other sectors has no significant gain.

Adams (2009) showed that a lot of regions in Africa have been able to increase FDI inflows, but this increase did not show positive effect of FDI on economic growth. He discovered four implications in terms of diversification, enhancing absorptive capacity of local firms, providing opportunities for linkages between domestic and foreign investors and a targeted approach to FDI. From this study, it can be deduced that what African countries should target is attracting FDI in more dynamic products and sectors with high income elasticity of demand. Africa has a high potential for foreign investment, but several conditions such as unstable political, social and environmental factors might reduce the effect that FDI could have on economic growth.

Following the study of Agrawal and Khan (2011) on the links between FDI and economic growth in Brazil, Russia, India, China and South Africa between 1989 and 2012, FDI and economic growth were found to be cointegrated. This implies that a long-run relationship exists between FDI and growth. It was suggested that growth and foreign investments had a positive relationship in a bidirectional way. It was recommended that policy makers in these economies should remove obstacles to FDI inflows and enhance absorptive capacity, so as to make the positive effects of FDI on growth feasible. In conclusion, it has been noted that FDI's performance is conditional on existing factors in host countries.

3. Theoretical framework, Model specification and Methodology.

According to growth theory, FDI is suggested to be positively related to economic growth. The theory considers factors such as improved technology, efficiency and productivity that are needed to enhance growth (Lim, 2001). It was also noted that some conditions are necessary to exist in host countries for FDI to be enhance economic growth. Based on this, we can show the effect of FDI on economic growth in a standard growth accounting framework, which is assumed to be composed of domestic capital stock and foreign-owned capital stock. Thus, capital can be written as:

$$K_t = dk_t + fk_t \quad (1)$$

Employing Augmented Solow production function (Solow, 1957), which states that output depends on stocks of capital, human capital and productivity (Mankiw et al, 1992). Domestic and foreign-owned capital stocks can be specified separately in a Cobb-Douglas production function as below:

$$Y_{it} = A_{it} dk_{it}^{\alpha} fk_{it}^{\lambda} l_{it}^{\beta} h_{it}^{\gamma} \quad (2)$$

Where Y is Output flow, dk_{it} fk_{it} are the domestic and foreign-owned capital stocks respectively, l is Labour, h is human skills capital stock and A is factor productivity, which shows output growth that is not accounted for by the growth in the factors specified.

Taking logs and differentiate equation (2) with respect to time, we have:

$$y_{it} = a_{it} + \alpha_1 dk_{it} + \lambda_1 fk_{it} + \beta_{it} + \gamma_{it} \quad (3)$$

where, α = elasticity of output

dk = domestic capital stock

fk = foreign capital stock,

l = labour skill capital.

h_t = human skill capital

In an ideal world where there is perfect competition and constant returns to scale, we can interpret these elasticity coefficients as respective factor shares in total output. Equation (3) is a fundamental growth accounting equation that simplifies the growth rate of output into the addition of growth rate of total factor productivity and a weighted sum of the growth rates of capital stocks, human capital stock and the growth rate of labour. „ α , λ and γ ” are expected to be positive while the sign of λ would depend on the relative strength of competition and linkage effects, with other externalities generated by FDI in the development process. Considering the roles of social factors on the relationship between FDI and economic growth, we include social factors in our growth equation (3), and then have:

$$y_{it} = \alpha_{it} + \alpha_1 dk_{it} + \lambda k_{it} + \beta l_{it} + \gamma h_{it} + \varphi sf_{it} \quad (4)$$

Where sf becomes social factors.

Given the fact that economic growth is expected to reduce poverty, we specify our poverty equation model as:

$$POV_{it} = \alpha_{it} - \alpha_1 FDI_{it} - \alpha_2 Z_{it} + \mu_i + \varepsilon_{it} \quad (5)$$

where i indexes countries, t indexes time, POV_{it} is poverty (measured by per capita income) FDI_{it} , represents foreign direct investment and Z_{it} is a vector of social factors, income growth and other exogenous variables that might affect poverty level as well as functioning of foreign direct investment, μ_i is the unobserved country specific effect and ε_{it} is a time varying error term.

The most common method in FDI-poverty regression is Ordinary Least Squares (OLS) (see Meltzer, 2006). Since West African countries differ in terms of political regimes, ideologies, colonial history etc, we take into cognizance the heterogeneity of FDI to make our results robust. Also, to examine the difference in our results compared to the results of other studies that used OLS, this study employed Ordinary Least Square (OLS), Mean Group estimator, Pesaran (2006) Common Correlated Effects Mean Group Estimator (CCEMGE). We also check for the robustness of our results using Average Correlation Coefficients (ACC) & Pesaran (2004) CD test Method.

4. Sources of Data, Description and Measurement of Variables

The study employed annual secondary data ranges between 1980 and 2015. Data on real income per capita, life expectancy, working population and dependency population ratio were obtained from the publication of World Development Index (WDI). Following the work of Popa (2012), which measured social factors with population at risk of poverty, unemployment rate, life expectancy, expected years of schooling and age distribution, we measure our social factors using age distribution (i.e. population working and population not working), and life expectancy rate. Since poverty is multi-faceted and there is a need to measure it with multiple indicators such as distribution of real expenditure per adult, access to non-market goods like health and education, distribution within households and the personal characteristics of the poor (see Ravallion (1996), we employed multidimensional approach by using human development indicators (i.e. rural development measured by per worker agricultural value added, real per capita income and consumption per capita which represents access to resources needed for a decent standard of living, (see Masud and Yoncheva, 2005; Chirino and Melian, 2006 and Morrissey, 2004). We employed principal component analysis on our human development indicators to arrive at a single variable which we used to measure poverty.

5. Data Analysis and Discussion of Results

Before the estimation of our variables, we first examined the summary statistics of our variables both in levels and in logs. The results show that the deviation of our variables from the mean is large. We then examined the variables used in logs. The results showed that the deviation from the mean is not as large as in levels. This then informs the use of our variables in logs. The results are presented in Table 1 and 2 below.

TABLE 1

SUMMARY STATISTICS OF THE VARIABLES USED IN LEVELS

Variable	Obs	Mean	Std. Dev.	Min	Max
Pov	612	924.3836	1505.569	64.8102	1530.1
fdi	594	3.305475	9.986779	-82.8921	89.47596
popwork	612	52.35341	2.330799	46.95435	65.76862
popnotwok	612	3.279687	.8673653	1.933086	6.142231
lifeexpect	612	53.27075	6.867237	35.7014	73.3556

TABLE 2

SUMMARY STATISTICS OF THE VARIABLES USED IN LOGS

Variable	Obs	Mean	Std. Dev.	Min	Max
lpov	612	6.292504	.8885303	4.171463	9.352716
lfdi	529	.3157887	1.63531	-6.950336	4.49397
lpopwork	612	3.957065	.0432707	3.849176	4.186143
lpopnotwok	612	1.159568	.2262509	.6591177	1.815188
lifexp	612	53.27075	6.867238	35.70139	73.35564

We also examined the correlation among our variables to ensure there is no multi-colinearity. We found that they were not highly correlated. This then implies that they are good for the analysis. The result of the correlation is shown in Table 3 below.

TABLE 3

CORRELATION OF THE VARIABLES USED

	lpov	lfdi	lpopwork	lpopnotwok	lifexp
lpov	1.0000				
lfdi	0.1842	1.0000			
lpopwork	0.4705	0.3295	1.0000		
lpopnotwok	0.5861	0.0085	0.3688	1.0000	
lifexp	0.5805	0.3129	0.3329	0.4688	1.0000

Before we carry out our analysis, we first examined the unit root of all the variables using both the first (Maddala and Wu (1999) Panel Unit Root test (MW) and second Pesaran (2007) Panel Unit Root test (CIPS) generation approach. The examination suggests that the variables are integrated of order one. They are also presented in Table 4 and 5 below.

Unit root test

TABLE 4

(A) Maddala and Wu (1999) Panel Unit Root test (MW)				(A) Maddala and Wu (1999) Panel Unit Root test (MW)			
Specification without trend				Specification with trend			
Variable	lags	chi_sq	p-value	Variable	lags	chi_sq	p-value
lgppk	0	8.562	0.006	lgppk	0	63.021	0.002
lgppk	1	66.444	0.001	lgppk	1	59.825	0.004
lgppk	2	60.949	0.003	lgppk	2	48.687	0.049
fdipopdep	0	117.016	0.000	fdipopdep	0	159.335	0.000
fdipopdep	1	56.083	0.010	fdipopdep	1	76.936	0.000
fdipopdep	2	57.736	0.007	fdipopdep	2	74.505	0.000
fdipopwok	0	115.890	0.000	fdipopwok	0	162.276	0.000
fdipopwok	1	54.064	0.016	fdipopwok	1	77.254	0.000
fdipopwok	2	54.714	0.014	fdipopwok	2	74.301	0.000
fdipopnotwok	0	117.536	0.000	fdipopnotwok	0	159.849	0.000
fdipopnotwok	1	55.728	0.011	fdipopnotwok	1	77.529	0.000
fdipopnotwok	2	57.398	0.007	fdipopnotwok	2	77.234	0.000
fdili fexp	0	102.868	0.000	fdili fexp	0	148.750	0.000
fdili fexp	1	48.253	0.054	fdili fexp	1	74.009	0.000
fdili fexp	2	44.039	0.116	fdili fexp	2	69.344	0.000

Table 5

(B) Pesaran (2007) Panel Unit Root test (CIPS)				(B) Pesaran (2007) Panel Unit Root			
Specification without trend				Specification with trend			
Variable	lags	Zt-bar	p-value	Variable	lags	Zt-bar	p-value
lgppk	0	-1.002	0.158	lgppk	0	-0.513	0.304
lgppk	1	0.602	0.726	lgppk	1	2.033	0.979
lgppk	2	1.972	0.976	lgppk	2	1.673	0.953
fdipopdep	0	-6.361	0.000	fdipopdep	0	-4.481	0.000
fdipopdep	1	-3.056	0.001	fdipopdep	1	-1.563	0.059
fdipopdep	2	-1.994	0.023	fdipopdep	2	-1.015	0.155
fdipopwok	0	-6.459	0.000	fdipopwok	0	-4.628	0.000
fdipopwok	1	-3.099	0.001	fdipopwok	1	-1.710	0.044
fdipopwok	2	-2.019	0.022	fdipopwok	2	-1.155	0.124
fdipopnotwok	0	-6.595	0.000	fdipopnotwok	0	-4.871	0.000
fdipopnotwok	1	-2.894	0.002	fdipopnotwok	1	-1.232	0.109
fdipopnotwok	2	-1.541	0.062	fdipopnotwok	2	-0.074	0.470
fdili fexp	0	-6.298	0.000	fdili fexp	0	-4.495	0.000
fdili fexp	1	-2.930	0.002	fdili fexp	1	-1.445	0.074
fdili fexp	2	-1.416	0.078	fdili fexp	2	-0.397	0.346
Null for MW and CIPS tests: series is I(1).							
MW test assumes cross-section independence.							
CIPS test assumes cross-section dependence is in form of a single unobserved common factor.							

Considering the impact of FDI and social factors on poverty level, we use OLS, CCEMGE and ACC and then tested for serial independence correlation of our results using Average correlation coefficients & Pesaran (2004) CD test. The results show that FDI reduced poverty in West Africa. This result was not statistically significant when OLS and CCEMGE methods were used, but it was significant when ACC method was used. We found that population that is working reduced poverty, while population not working promoted poverty level. This result was statistically significant under the non-working population. Life expectancy on its own failed to reduce poverty except when CCEMGE method was used and the result was statistically significant. These results support the findings of Borenstein (1998) where he found positive relationship between FDI and growth and concluded that FDI is an important vehicle for the diffusion of technology, but capacity to take this advantage depends on the initial threshold stock of human capital that is not present in developing countries. The result also supported the findings of Gohou and Soumare, 2011; Lehnert, Benmamoun & Zhao, 2013) where they found positive relation between FDI and welfare indicator. We also found from the study that gross domestic production per capita (gppk) failed to reduce poverty in West Africa. Testing for the robustness of our results when we use CCEMGE and ACC, the null hypothesis of cross correlation independence was accepted. Therefore we accepted that there was no cross correlation dependence in our results. These results were shown in Table 6, 7 and 8 below.

Table 6

	OLS) Pov	(CCEMGE), Pov	(ACC) POV
lfdi	-0.000517 (-0.04)	-0.00170 (-0.15)	-0.0152** (-3.03)
lifeexpect	0.106 (1.14)	0.0876* (2.34)	0.0365** (3.20)
lpopwork	-6.604 (-0.79)	0.793 (0.21)	-2.161 (-0.53)
lpopnotwok	0.231 (0.17)	2.511* (2.48)	2.335 (1.89)
trend	0.00306 (0.07)	-0.0201 (-1.40)	0.00835 (0.48)
lgppk_avg		0.798*** (9.93)	
lfdi_avg		0.00609 (0.22)	
lifeexpect~g		-0.0466** (-3.05)	
lpopwork_avg		-2.120 (-0.32)	
lpopnotwok~g		1.754* (2.51)	
_cons	25.56 (0.75)	-1.211 (-0.06)	12.38 (0.65)
N	529	529	529

t statistics in parentheses

* p<0.05, ** p<0.01, *** p<0.001

Table 7

Variables series tested: kmg Average correlation coefficients & Pesaran (2004) CD test

Group variable:	contriid			
Number of groups:	17			
Average # of observations:	29.22			
Panel is:	unbalanced			
Variable	CD-test	p-value	corr	abs(corr)
kmg	14.06	0.210	0.230	0.309
Notes: Under the null hypothesis of cross-section				
independence CD ~ N(0,1)				

Table 8

Average correlation coefficients & Pesaran(2004) CD test				
Variables series tested: kmg				
Group variable: contrid				
Number of groups: 17				
Average # of observations: 29.22				
Panel is: unbalanced				
Variable	CD-test	p-value	corr	abs(corr)
kmg	4.90	0.321	0.079	0.242
Notes: Under the null hypothesis of cross-section				
independence CD ~ N(0,1)				

After examining the independent effect of FDI and social factors on poverty level, to account for the roles of social factors on the relationship between FDI and poverty, we examine the joint effect of social factors and FDI on poverty level in West African Countries between 1980 and 2015. To do this, we interact our social factors with FDI and test for their roles on the relationship between FDI and poverty. Our results show that interaction of FDI with working population, non-working population and life expectancy rate reduced poverty in West Africa. We also tested for the robustness of our results and the results showed that there was no cross correlation dependence in our results. These results were presented in Table 9, 10 and 11 below.

Table 9

	(1) OLS Pov	(2) (CCEMGE), Pov	(3) (ACC) POV
fdipopdep	0.0709 (0.11)	0.0260 (0.04)	-0.337 (-0.66)
fdipopwok	-0.444 (-0.59)	0.246 (0.34)	0.456 (0.83)
fdipopnotwok	-0.348 (-0.42)	-0.231 (-0.34)	-0.235 (-0.47)
fdilifexp	0.0360* (2.52)	-0.00733 (-0.63)	-0.00758 (-0.84)
trend	0.0192** (3.26)	0.00285 (0.51)	-0.00529 (-1.00)
lpov_avg		0.592*** (8.87)	
fdipopdep~g		-0.850** (-2.94)	
fdipopwok~g		1.007** (2.69)	
fdipopnotw~g		-0.464* (-2.24)	
fdilifexp~g		0.00313 (0.39)	
_cons	5.891*** (27.24)	2.297*** (6.70)	6.270*** (40.62)

t statistics in parentheses

* p<0.05, ** p<0.01, *** p<0.001

Table 10

Average correlation coefficients & Pesaran				
(2004) CD test				
Variables series tested: kmg				
Group variable: conrid				
Number of groups: 17				
Average # of observations: 29.22				
Panel is: unbalanced				
Variable	CD-test	p-value	corr	abs(corr)
kmg	12.99	0.231	0.215	0.296
Notes: Under the null hypothesis of cross-section				
independence CD ~ N(0,1)				

Table 11

Average correlation coefficients & Pesaran(2004) CD test				
Variables series tested: kmg				
Group variable: conrid				
Number of groups: 17				
Average # of observations: 29.22				
Panel is: unbalanced				
Variable	CD-test	p-value	corr	abs(corr)
kmg	10.38	0.115	0.170	0.264
Notes: Under the null hypothesis of cross-section				
independence CD ~ N(0,1)				

6. Summary, Policy Recommendation and Conclusion

The study examines the roles of social factors on the relationship between FDI and poverty reduction in West Africa using Ordinary Least Square (OLS), Mean Group estimator, Pesaran (2006) Common Correlated Effects Mean Group estimator (CCEMGE), and Average correlation coefficients (ACC) & Pesaran (2004) CD test methods. The results show that FDI has the potential to reduce poverty level in West Africa. The result of the study showed that improved social factors are likely to enhance the role of FDI in the process of reducing poverty level in West Africa. The study recommends that governments of West African countries should work more on the improvement of life expectancy and non working population in their countries as well as providing conducive environment for FDI to perform effectively so as to have expected impact on poverty reduction.

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