

Poverty Reduction and Stock Market Development: Evidence from Africa

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Abstract

Despite the increased number of stock exchanges in Africa, this segment of the financial market remains underdeveloped with low market capitalization, volume and illiquidity. Furthermore, the aftershock of the 2008 financial crisis exacerbates the poor market condition with the attendant decrease in investment. Efforts of previous policies to promote stock market development and restore investors' confidence did not yield a positive outcome as they are yet to meet the rising demand for capital needed by domestic firms. This paper examines the relationship between poverty reduction and stock market development in Africa, using the pooled mean group (PMG) model for the sample period of 1996 to 2016. The findings suggest poverty reduction has a positive effect on stock market development both in the long-run and short-run estimates. For policy prescription, the government of the respective countries should implement programs that will promote financial inclusion and alleviate poverty to promote domestic investment in stock markets in the region.

Keywords: Africa, Financial market, PMG model, Poverty reduction, Stock market development

JEL Classification Codes: G12, G21, G32, E43

I. Introduction

Although stock markets assist in promoting economic activities, they are affected by conditions of other economic variables. The capital markets, especially in small open economies play a vital role in mobilizing financial resources to attain greater success in market development. Despite Asiri and Abdalla (2015) affirm that stock markets provide facilities that allow companies to raise capital at lower cost and make them less dependent on bank financing, the African stock markets do not contribute significantly on financial intermediation. Similarly, Asiedu and Afful (2014) observe that Africa is one of the most

underdeveloped continents because most of the countries are not likely to meet the UNDP Millennium development goals.

Moreover, the socioeconomic factors would have been a major setback to the development and growth of the African financial system. The unrelenting level of poverty in the continent that has an adverse effect on economic growth could have contributed to low investment and the overall low development of the stock market in the region. The recent report from World Bank states that Sub Sahara Africa is a home of at least 30 percent of World poorest people and Africa has six out of the ten most unequal countries in the World (World Bank Group, 2015). In fact, the scourge of poverty and unemployment has ravaged almost all nations in different dimensions (Akwara *et al.*, 2013).

Despite the significant increase of the number of stock exchanges established in the African region, Allen *et al* (2011) posit that a mere creation of stock exchange is of limited value devoid of an enabling environment for the smooth functioning of the markets. Additionally, Ahuru and Olaposi (2016) state that in spite of policy agenda to open African financial market to foreigners, the performance of stock markets in African countries is below expectation. The reason is not farfetched as stock markets in emerging economies like African countries are facing serious challenges regarding market capitalization, the volume, and liquidity. According to Beck *et al* (2004), the financial breadth and depth in Africa are the lowest in all regions of the world while Allen *et al* (2011) note that the African stock markets face serious challenges regarding market depth.

Due to the underdevelopment of the stock market in most African nations, investors are reluctant in bringing their capital to the region without a promising future return. According to Massa (2009), investor's confidence in African stock market is continuously degrading and it may not be unconnected to traditional barriers of stock market development like the small size, low liquidity, lack of transparency and inadequate infrastructure. In fact, the challenge for most African capital markets is to increase liquidity and have sufficient breadth and depth to ensure price efficiency (Hearn & Piesse, 2010).

Furthermore, the global financial crisis of 2008 is one of the major factors that exacerbate investors panic and led to a significant decline in their investment in the region. In spite the evidence that external finance is necessary to augment domestic saving to accelerate investment (Asiedu, 2002), the global financial crisis in 2008 has led to a substantial decline in import, export and foreign investment inflow to Africa with a consequential loss in market capitalization. Ali and Afzal (2012) affirm that the net capital inflow from advanced to the

emerging nations declines significantly from the beginning of the crises. Although the crisis was originated in the United States, it spreads to almost all nations with varying degree of damages. Iqbal (2010), states that despite the developing economies are not responsible for the financial crises, they are seriously affected by the channels of trade and finance. These factors create uncertainty in the minds of investors and if not addressed will further aggravate the threat on African investment. Beck et al (2011) observe that the African capital markets experienced a rapid decline in capital flows which dampens the stock market indexes and constrained the government and firms to cancel the bond and stock issues.

Table 1: Trends of Stock Market Development

Year	AFRICA			MALAYSIA		
	Average MK	Average STV	Average TOR	MK	STV	TOR
1996	24.3	2.06	6.77	303.56	25.42	8.38
1997	26.26	3.01	8.97	93.22	42.59	45.68
1998	25.7	4.22	8.66	132.42	36.79	27.79
1999	27.8	5.41	10.54	176.77	53.13	30.06
2000	26.05	6.06	10.25	120.65	55.99	46.41
2001	21.27	5.9	11.3	128.23	22.67	17.68
2002	21.66	5.92	8.45	124.72	25.51	20.45
2003	26.37	6.07	8.4	145.93	41.48	28.42
2004	31.67	6.52	9.63	145.59	43.44	29.84
2005	38.35	8.67	11.61	125.77	31.1	24.73
2006	45.77	12.73	15.94	144.8	42.5	29.35
2007	56.92	17.4	17.51	168.07	79.9	47.54
2008	53.16	19.44	18.14	81.99	35.67	43.5
2009	44.38	17.39	16.83	142.99	39.97	27.95
2010	44.47	12.89	12.11	160.26	45.01	28.09
2011	39.14	10.09	12.14	132.78	43.74	32.92
2012	43.92	6.35	8.07	148.38	39.32	26.5
2013	47.78	6.8	7.29	154.79	43.98	28.41
2014	47.51	7.82	8.98	135.77	42.2	31.08
2015	44.07	7.96	8.75	129.19	37.61	29.1
2016	40.63	8.11	8.51	121.33	33.14	27.01

Source: World Bank and Financial Development and Structure Databases.

In addition, due to abject poverty, most Africans struggle to meet their basic necessity of life and do not have means of investing which becomes a serious stumbling block to investment. Similarly, available statistics reveal that about 67 to 70 percent of Africans reside

in rural areas with limited infrastructure and most of them are in abject poverty. In fact, Africa is the only region that did not meet the millennium development goal of halving poverty by 2015 (Begg et al., 2016). This is a serious risk to the development and prosperity of the region that needs adequate attention. In addition, the table below made a comparison of the nature of stock market development in the selected African countries and Malaysia.

The figures in the table reveal that all the major indicators of market development in Africa are far below what is obtainable in the non-African emerging market. For example, the highest ratio of average market capitalization (MK) in Africa was 56.92 in 2007. However, the Malaysian market capitalization for the same year was 168.07 representing about 300% above the African average. Also, the average stock traded (STV) in Africa or market liquidity in 2016 was 8.11 which is four times lower than the Malaysian figure of the same year while the average market turnover ratio (TOR) is 8.51 compared to 27.01 in Malaysia. This confirms the prior literature that stated the region faces serious challenges regarding market size, volume and liquidity which makes it difficult if not impossible to provide long-term financing.

This paper makes a valuable contribution to the financial market literature in several ways. First, the prior literature has been silent about the possible impact of poverty reduction on stock market development despite Beck et al (2007) suggest that poverty reduction may stimulate demand for financial services. Hence this paper bridge the literature gap by providing empirical evidence that poverty reduction has a positive impact on stock market development. To the best of knowledge, this finding is new evidence in the financial market literature. Intuitively when poverty level is reduced drastically, the household will have access to finance while their income beyond consumption can be invested in the stock market to provide more investment opportunities for firms and businesses. The second contribution is on the fact that the stock market development is multidimensional with alternative proxies for measuring the different aspect of the market. Most of the previous studies (Law and Tan, 2009; Aduda et al., 2012; Chipaumire & Ngirande, 2014; Arize et al., 2017) do not identify the flaw of using a single proxy though Levine (2005) confirms the weakness of single proxy to represent stock market development. This paper overcomes this issue and constructed a composite index using principal component analysis (PCA) that captures market capitalization, the stock traded and turnover ratio. Thirdly, the paper considers structural break due to the 2008 global financial crisis and findings suggest its negative impact on

market development. This paper examines the effect of poverty reduction on stock market development in selected African countries using the pooled mean group (PMG) model.

The remaining part of the paper is organized in the following order: section two reviews theoretical and empirical literature, section three describes data and methodology, section four discusses empirical finding while section five is for conclusion and policy implications.

II. Literature Review

Although the existing security market theories do not suggest precise factors predicting the variation of the stock market, the Arbitrage Pricing Theory (APT) of Ross (1976) is the most suitable asset pricing theory that links stock market to multiple risk factors. The theory suggests that securities return is a function of investment sensitivity to several common factors. This signifies that several risk factors can be used to explain changes in the stock market and the APT assumption is that securities returns are derived through the following linear model:

$$r_t = \gamma_t + \beta_t \delta + \varepsilon_t$$

Where r_t denotes market return on asset t , γ_t is the intercept or unconditional expected return, β_t symbolizes coefficient measuring the impact of each factor on the securities return, δ is a vector of several risk factors while ε is error term for the residuals or white noise. Poverty is a critical factor that is so pervasive in the African region with more than half of the population living below the poverty line becoming serious setback retarding domestic investment. If poverty level and other associated socioeconomic factors are addressed, the Africans would have an opportunity to save out of their income and can be translated to investment in stock markets to yield more returns in the long-run. Poverty is considered among the crucial factors affecting households, firms and economic development. Beck et al., (2004) observe that countries with well-developed financial intermediaries experience a speedy reduction in poverty. Moreover, the recent report from World Bank states that Sub Sahara Africa is a home of at least 30 percent of World poorest people and Africa has six out of ten most unequal countries in the World (World Bank Group, 2015). In fact, the scourge of poverty has ravaged almost all nations on the continent in different dimensions.

Although there are no existing studies on the impact of poverty reduction on the stock market, this paper reviews the effect of financial development on poverty reduction. There is substantial evidence suggesting inverse relationship between financial development and poverty reduction (Beck et al., 2004; Honohan, 2004; Clarke et al., 2006; Lazar et al 2006;

Demirgüç-Kunt & Levine, 2009; Odhiambo, 2009; Batuo et al, 2010; Khan *et al.*, 2011; Boukhatem, 2016; Blau, 2017). Therefore it can be said that when countries attain a certain level of financial development, finance can be extended to the poor households which will go a long way at improving the standard of living, economic stability and poverty reduction.

Moreover, other empirical literatures consider the possibility of financial development benefiting only the rich and well-connected individuals in a society through income inequality (Kunieda et al., 2014; Jauch & Watzka, 2015; Adams et al, 2016). The positive relationship cannot be unconnected to uneven access to financial services between the rich and the poor as the rich get richer and the poverty level becomes unacceptably high. The second reason may be that most of the financial intermediaries prefer investment in riskless asset giving less priority to individual and firms financing request. Additionally, Sun et al. (2013) assert that a poor household with tight financial constraints could not invest in their children education leading to inter-generational poverty. Therefore increasing access to financial resources will magnify economic prospects for less privileged to fund investment of their children.

Furthermore, there are empirical kinds of literatures reporting a non-linear relationship between the variables. For example Rashid and Intartaglia (2017), Kim and Lin (2011), and Beck et al (2007) suggest that the financial development can reduce poverty only when there are strong regulatory and institutional frameworks while Rewilak (2017) found that financial deepening has contributed significantly in providing access to finance for the poor. Similarly, Prete (2013) uncovers the effect of financial development on poverty reduction is driven by economic literacy. The ability to explore new investment opportunities will indisputably lead to poverty reduction signifying investors' competence as one of the critical factors resulting in the success of business operations. By contrast, Dhrifi, (2013); Naceur and Zhang (2016) and Odhiambo (2010) uncover that it is the financial development and savings that contribute to poverty reduction. On the other hand, the studies of Akhter and Daly (2009) and Jeanneney and Kpodar (2008) disclose the beneficial effect of financial development on poverty reduction is hampered through financial instability. Their argument is that when the financial system is unstable, it results in fluctuation in the price of goods and investments both are threats to market stability and development.

Despite empirical evidences of significant relationship, other studies suggest financial development has no significant impact on poverty reduction and inequality (Seven & Coskun, 2016; Donou, 2016; Das & Mohapatra, 2003; Perez-Moreno, 2011; Fowowe &

Abidoye, 2012; Tan & Law, 2012). These studies emphasize that inactive financial markets hamper growth opportunities and amplify the scourge of poverty. Secondly, despite structural adjustment programs result to rise in demand for financial services in developing countries, this request has not been well considered by the financial market to supply finance in proportion to the increase in demand.

Moreover, some empirical studies focus on how economic growth influences poverty reduction in different aspects. In terms of the development agenda, the continent of Africa has been left behind as the level of income is inadequate to overcome the rising trend of poverty. Collier (2007) asserts that the reduction of poverty in Africa is to a greater extent dependent on intensifying African growth. The question of which economic activity is capable of mitigating poverty generally depends on the sector recording the growth. There are studies that found the agricultural sector as a major contributing factor to poverty reduction (Montalvo & Ravallion, 2010; Ivanic & Martin, 2017; Mellor & Malik, 2017). Similarly, social protection is found to be vital in mitigating the adverse effect of poverty in the crisis period (Kiendrebeogo et al., 2017), demographic change through increase in number of working population increase per capita growth and lessens poverty rate (Ahmed & Cruz, 2016), income growth is a major determinant for increase/decrease of poverty level in developing countries (Fosu, 2017) while another study found the service sector growth has a significant impact on poverty reduction than the industrial and agricultural sectors (Ferreira et al., 2010).

The question of whether poverty reduction will help promote stock market development has not been considered in the prior literature. On a general note, the previous studies were conducted on how financial development contributes to the poverty reduction. Thus this paper contributes to filling the existing literature gap by providing empirical support that poverty reduction matter for stock market development. In other words, this study extends this line of research by looking at reverse causation as to how poverty reduction contributes to the development of African stock markets. The findings provide evidence by answering a policy question of whether poverty reduction can improve financial market development. Needless to say, an understanding empirical link between poverty reduction and stock market development will let policymakers assess whether poverty level in Africa is a contributing factor to the low development of stock markets.

III. Data and Methodology

To examine how poverty reduction relates to stock market development in selected African countries, this paper obtains data from the World Development Indicators (WDI) databank of 2016 and the Financial Development and Structure database developed by Beck *et al.* (2010). The annual sample data for the 12 African countries start from 1996 to 2016 and this gives 252 numbers of observations. The selected countries based on data availability are Côte d'Ivoire, Egypt, Ghana, Kenya, Malawi, Mauritius, Morocco, Namibia, Nigeria, South Africa, Uganda and Zambia. Moreover, a composite index was constructed for stock market development incorporating market capitalization, the stock traded and stock turn over. Similarly, the household final consumption expenditure was used to proxy for poverty reduction. The paper controls the poverty reduction-stock market development relationship with some number of variables including banking development, exchange rates, interest rates and structural break. To check for the structural break, a dummy of 1 was used to stand for break dates and 0 for the pre-crisis period to capture the impact of structural change on the African stock markets.

However, this paper expects a theoretical link between stock market development and the selected variables. The paper theorizes a positive relationship between poverty reduction and stock market development. For control variables of the model, the paper assumes a positive relationship between banking development-stock market while other control variables of exchange rate and interest rates are expected to exert negative impact based on previous empirical findings (Pradhan *et al.*, 2014; Moya-Martínez *et al.*, 2015; Amarasinghe, 2016).

The Pooled mean group (PMG) model of Pesaran *et al.* (1999) was employed to investigate the relationship between poverty reduction and stock market development. This technique (PMG) has several advantages over the traditional models. Due to common features of the African economies, the model is suitable as the similarity is expected to impact on the long-term parameters in a similar way. Also, it has the additional advantage over the other heterogeneous models by constraining long-run estimates to be similar irrespective of the order of integration of the variables. Lastly, the estimates of PMG seem quite robust to misspecification bias, outliers and lag order selection. The study specifies equation 1 as an initial model for this study which incorporates the dependent variable, independent variable and a set of control variables as follows:

$$SMD_{it} = \alpha_0 + \alpha_1 PVR_{it} + \alpha_2 BD_{it} + \alpha_3 EXR_{it} + \alpha_4 IR_{it} + \alpha_5 BRK_{it} + \varepsilon_{it}$$

Where SMD stands for stock market development, PVR is for poverty reduction, BD is a symbol of banking development, IR represents interest rates, ER symbolizes exchange rates and BRK stand for structural change. The epsilon ε means error term, whereas i represent country and t denotes a period of time. However, $i = 1, 2, 3, \dots, 12$ is for the selected African countries while $t = 1, 2, 3, \dots, 21$ is for the number of years to be covered. Therefore, the unrestricted PMG model specification is shown below:

$$SMD_{it} = \sum_{n=1}^r \theta_{ij} SMD_{i,j-e} + \sum_{n=1}^s \gamma'_{ij} C_{i,g-1} + \delta_i + \varepsilon_{it}$$

Where SMD is the dependent variable representing stock market development, $x_{i,t-j}$ is the vector of explanatory variables (Poverty reduction, Banking sector development, Exchange rates, Interest rates and Break) for country i . The subscript, $t = 1, 2, 3, \dots, T$ for time t and $i = 1, 2, 3, \dots, N$, for countries in the sample. The symbol δ_i represents country-specific effects while μ_i denotes fixed effect parameterization. Similarly, the Equation can be rewritten as VECM model as follows:

$$\Delta SMD_{it} = \gamma_i (SMD_{it} - MK_{i,t-1} - \theta'_i C_{i,g-e} + \delta_i + \varepsilon_{it}) + \sum_{n=1}^{r-1} \theta_{ij} \Delta \rho_{i,g-e} + \sum_{n=1}^{s-1} \gamma'_{ij} \Delta C_{i,g-e} + \varepsilon_{it}$$

Where γ_i represents the error correction term coefficient and δ_i represents long-run parameters, which are assumed to be common across entities. The primary interest is the speed of adjustment, γ_i and coefficient of long-run estimates. The model is estimated using pooled maximum likelihood estimation to compute the average long-run estimates and group-specific short-run coefficients. Therefore, the coefficient of γ_i is expected to be negative and statistically significant if the model exhibits a usual return to long-run equilibrium. Accordingly, the estimates of PMG parameters are consistent and asymptotically normally distributed for both stationary and non-stationary regressors (Pesaran *et al*, 1999).

IV. Empirical Findings

Table 2 reports the Im *et al* (2003) unit root test results which indicate that SMD, PVR and ER are having unit root problem while BD, IR and BRK are stationary at level. To confirm stationary of variables, the t-statistic in each case should be greater than the critical value at all the conventional levels of significance (1%, 5% and 10%). However, the variables with unit root problem become stationary after first difference.

Table2: Stationary Test Results

Variables	Im, Pesaran and Shin			
	I(0) with Constant	I(0) with Constant & Trend	I(1) with Constant	I(1) with Constant & Trend
SMD	-1.253	-1.701	-2.987***	-2.998***
PVR	-0.271	-1.698	-4.288***	-4.412***
BD	-1.138	-2.252**	-4.203***	-4.145***
ER	-1.282	-1.805	-3.248***	-3.239***
IR	-1.981**	-1.859*	-3.744***	-4.013***
BRK	-0.809	-2.089**	-4.359***	-4.235***

Note: *, ** and *** indicate rejection of null hypothesis at 1%, 5% and 10% levels of significance, respectively.

The unit root test shows evidence that the variables are integrated of mix-order thus the pooled mean group (PMG) is presented in Table 3 in order to determine how much of equilibrium is being corrected every year, as well as to examine the long-run relationship among the variables.

Table 3: Pooled Mean Group Estimates

Variable	Coefficient	Std. Error	T-Statistic	Prob.
Long-run Equation				
PVR	0.391	0.108	3.610	0.0004
BD	0.011	0.002	5.424	0.0000
ER	0.015	0.027	0.563	0.5741
IR	-0.004	0.002	-2.463	0.0149
BRK	-0.194	0.044	-4.359	0.0000
Short-run Equation				
ECT	-0.176	0.051	-3.421	0.0008
PVR	1.763	1.064	1.655	0.0998
BD	0.001	0.001	1.277	0.2035
ER	0.008	0.011	0.722	0.4705
IR	-0.001	0.016	-0.119	0.9041
BRK	0.074	0.058	1.266	0.2074

Note: the poverty reduction variable is in a natural log, Dependent Variable=SMD

As presented in Table 3, the impact of PVR on SMD is positive and statistically significant. The results indicate that a one percent increase in PVR leads to increase of SMD by 0.39%. Although there are no existing empirical studies on poverty reduction-stock market development, it is closely in line with the findings of Baghebo and Emmanuel (2015) that poverty alleviation promotes economic growth. Therefore, when the rate of poverty reduces, there is a likelihood that household will have surplus income to invest in the stock market. The lower the poverty levels of poverty, the more chances of making demand and investment in financial markets that usually lose huge foreign investment in the crisis period.

Additionally, Sun *et al.* (2013) assert that poor households with tight financial constraints could not invest in their children education and this can lead to inter-generational poverty. Therefore increasing access to financial resources will magnify economic prospects for the less privileged to fund investment of their children. The findings also support the arbitrage pricing theory (APT) that multiple risk factors predict the stock market returns.

Furthermore, the findings show the control variables are essential in predicting stock market development. The coefficient for BD reveals a significant positive relationship with the SMD. The coefficient reveals that a 1% increase in BD will bring about 0.011% increase SMD. This is in support of the complementary hypothesis that stock market and bank are compliments in promoting financial system development in line with the models of Boyd and Smith (1996) and Blackburn *et al* (2005). Furthermore, the impact ER on SMD is positive and statistically non-significant while the coefficient of interest rates supports the set hypothesis by showing a negative sign and a statistically significant relationship. Furthermore, the results show the existence of a structural break and this indicate the financial crisis has an adverse effect on the African stock markets. Furthermore, the coefficient of the error correction term (ECT)/ speed of adjustment goes in line with the Pesaran *et al.* (1999) where it is negative and statistically significant. These are necessary to show the rate of convergence to a long-run equilibrium. Hence, the coefficient (-0.176) reveals the disequilibrium that causes the preceding year temporal shock is adjusted by 17.6% per annum.

Despite the short-run coefficients of the PMG model mostly tell a different story, the relationship between the PVR and SMD is also positive and statistically significant as 1 percent increase in PVR results in an increase of SMD by 1.763 percent at 10 percent significant level. The findings indicate how important and effective is the poverty reduction towards improving the development of the stock market in the selected countries of the African region. Needless to say, however, the other variables of the short-run model do not exert a significant impact on the stock market development. For example, the BD-SMD relationship is positive and not significant at all conventional significant levels. In line with the findings of the long-run estimates, the relationship between ER and SMD is positive and not significant in the short-run. This reveals that in both short and long-run the exchange rate does not matter as far as the development of the stock market is a concern.

Although the IR and SMD are having a negative nexus, it is not as significant as indicated under the long-run model. The structural break due to the global financial crisis does not have an adverse effect on the SMD development under the short-run results.

Therefore, this paper gives emphasis on the long-run relationship as the pooled mean group (PMG) primary interest is the coefficient of long-run estimates as well as the speed of adjustment which is in line with the Pesaran et al. (1999) theoretical assumption of negative and statistically significant relationship.

Needless to say, to avoid reporting a spurious regression, there is a need for post-estimation/diagnostic test to confirm whether there is an issue of the pooled mean group long-run homogeneity restriction, normality and multicollinearity problems in the estimated model. This study employs the Hausman (1978) based test where the null hypothesis reveals that the variation in the coefficients between the mean group (MG) and the pooled mean group (PMG) are statistically similar. Hence the Hausman test chi-square probability value of 0.133 as revealed in table 3 below fail to reject the null hypothesis of poolability. Therefore, the most appropriate estimate for this paper is that of the PMG model which has the validity of the long-run homogeneity restriction.

Table 4: Pooled mean group diagnostic statistics

Test	P value
Hausmann specification test	0.133
Normality	0.225
Mean VIF	2.84

Source: Author's computation

However, the normality distribution of the data which is conducted on the residuals of the model is among the important assumptions of a linear regression thus the data is expected to be normally distributed. Hence the violation of normality assumption leads to the interpretation and inference to be invalid and unreliable (Park, 2008). In fact, for a test to stand for generalization, the data of the series should be distributed normally. Therefore the non-significant probability value of 0.225 as depicted in table 4 indicates the residuals of the model are normally distributed.

In addition, the variance inflation factor (VIF) test was conducted to determine whether the model is free of multicollinearity. The multicollinearity problem occurs when there is a high correlation between one independent variable and others in a model. If an extreme case of multicollinearity (singularity) is detected, Hair et al. (2009) recommend for an omission of the affected variable to guard against reporting an eventual inflation of standard error or resulting to an unreliable regression coefficient. The VIF of this model with an average of 3.47 falls within the range of no multicollinearity problem. Hence the issue of multicollinearity among the series for the model does not have a much concern. In view of the

diagnostic tests conducted, the results of this paper can be relied upon for policy formulation in the selected African countries on how the stock market can be developed in the continent to promote long-term investment and financial market development.

V. Conclusion and Policy Implications

This paper empirically investigates the impact of poverty reduction on the African stock market development using the pooled mean group (PMG) for the sample period of 1996 to 2016. The findings suggest that the poverty reduction exerts a positive impact on stock market development. Therefore, efforts to reduce poverty that is endemic in the region can yield a positive outcome to households through opportunities to invest in the financial market. Consequently, Imai et al (2017) document that over 60% of the African are below the age of 25 thus the increasing number without corresponding opportunities can aggravate the level of poverty and its attendant consequences thus the fight against poverty reduction in the region should be intensified. Similarly, the global financial crisis represents a major structural change in the African financial market as it impacts negatively on the market development.

There is a need for far-reaching policy reforms that will alleviate poverty, increase financial inclusion and promote rural development so that Africans can have ample opportunity to participate in developing the stock markets that have been small in size and illiquid. It is intuitive to predict that special intervention programs in agricultural and industrial sectors, rural infrastructure, increased access to financial services and human capital development can be among the major drivers of the extreme poverty reduction in the African region. Therefore, attaining a high-income level through poverty alleviation programs promotes savings and investment in stock markets. There is an urgent need for anti-poverty intervention policies and those increasing the financial inclusion of the household to increase their level of income and long-term investment.

The previous literature neglected the relationship between poverty reduction and stock market development hence this paper contributes to filling the identified literature gap. However, the paper is restricted to only 12 out of the 54 African countries due to data availability which makes it challenging to generalize some of the arguments taking into consideration the number of countries in the region. Hence the future research should include more African economies to see how poverty reduction predicts the stock market development.

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