EFFECTS OF FRAGILITY ON HUMAN DEVELOPMENT IN ECOWAS

Omojolaibi, Joseph Ayoola¹
Ogunniyi, Matthew Bahatrope²
Omojeni, Ibukunoluwa Akorede³

Abstract

The presence of various factors could make a state vulnerable to shocks and ultimately collapse. Ab initio, conflict was adjudged as the only evidence of state fragility. More recently, other political, social, and economic problems are also regarded as threats to state-building. Hence, this study assesses the effects of these fragile occurrences on the level of human development within the ECOWAS region. The study employed the Panel Fully Modified Least Square estimation technique for the analyses. The study spans 2006-2015. The analyses reveal that: group grievance exhibited negative effects on health and education, the security apparatus negatively spurred health only, and de-legitimization of the state negatively influences standard of living. The study recommends that proactive measures must be taken to curtail group-based grievances, conflicts and aggressions.

Keywords: Fragility, Human Development, Social Contract, ECOWAS

Introduction

The basic contract establishing the state confers on the state certain core attributes including a government, population, a definite territory and due recognition by other states as a sovereign which holds power in the trust of its citizens. Hence, the state is expected to be effective on all fronts capable of building strong institutions, exercise of the monopoly of power, defence of territory as well as possession of resources to secure the welfare of its citizens (Osaghae, 2007). However, a set of modern states default in their terms of the social contract due to their inability to monopolize force and mobilize resources. However, the term ‘fragile’ emerged out of repeated use by researchers and policy analysts on the evaluation of such failing states. Initially, conflict was a sole criterion of identifying such states, but the net later trapped other poorly performing underdeveloped and developing countries. Moreover, the World Bank and other international organizations adopt a compound nomenclature in addressing such states-fragile and conflict-affected states (FCAS).

On this note, it is estimated that of the seven billion people in the world, twenty six percent (26%) reside in these fragile and conflict-affected areas. Sadly, this is where one-third of all those living below the poverty line of US$1.25 per day live, half of the world’s children die before the age of five and one-third of maternal deaths occur (World Bank, 2009). This is attributed to the inability of the state to fulfill its own terms of the social contract. Therefore, a fragile state has been conceptualized as a state, where the social contract is broken due to the state’s incapacity or unwillingness to deal with its basic functions, meets its obligations and responsibilities regarding the rule of law, protection of human rights and fundamental freedoms, security and safety of its population, poverty reduction, service delivery, the transparent and equitable management of resources and access to power (EU, 2007).

In the run-up to the September 11 attacks, the political upheavals that bedevilled the atmosphere in fragile states especially in Africa and the Middle East implied that they would be training grounds for terrorism. Civil wars in the Democratic Republic of Congo (1960s, 1990s), Nigeria (1960s), Mozambique (1970s-1980s), Angola (1970s, 1980s and 1990s), Chad (1970s, 1980s and 1990s), Libya, Sierra Leone, Burundi, Rwanda, DRC, Guinea-Bissau, and Congo (all in the 1990s), and the Central African Republic (early 2000s) were perceived only as a domestic threat to the people of these countries, but not to international security. Somalia burst the bubble as her failure to monopolize the use of force saw the launching of armed attacks on the ships of other nations sailing the red sea, this indeed is a pointer to the potential threat a fragile state in Africa could pose to international security (UNECA, 2012).

West African Countries have been among the most politically unstable in Africa. From 1960 until the early 1990s, the contest for power did not allow for the operation of healthy multi-party systems. In May 1975, fifteen West African countries signed in Lagos, Nigeria, a treaty creating the Economic Community of West African States (ECOWAS). Nigeria played the key role in the intensive three-year diplomatic activities culminating in ECOWAS (Bamfo, 2013). The sub-region has majority of its internal crises spurred by tense security challenges, religious and ethnic biases Civil wars such as those which occurred in Cote d’Ivoire in 2010, Liberia in 1989, and Sierra Leone in 1991, and Nigeria in 1967, by far, have exacted much violence (Bamfo, 2013). These wars had several
causes ranging from the cultural and economic to the political and wrought incalculable harm on the people who were directly or indirectly affected by those wars (Bamfo, 2013). As Nafziger (1972) recalls, the Nigerian civil war was caused by a series of interconnected events which began soon after independence in 1960 that threatened to dissolve the republic. They include disputing the enumeration of the population by region or federal parliamentary representation as well as the military intervention of 1966 spearheaded by young Ibo officers in which several prominent politicians were killed. Civil wars in West Africa have lasted varying lengths with the latest, the Ivorian civil war of 2010, lasting only a few months (Bamfo, 2013). The Nigerian civil war lasted from 1967 to 1970, the Sierra Leonean from 1991 to 1997, and the Liberian from 1989 to 2003. ECOWAS acknowledges that its peacekeeping activities in the 1990s were dominated by efforts to end the civil war in Liberia through involving ECOMOG (ECOWAS Cease-Fire Monitoring Group). Since its creation, ECOWAS has faced multiple political, economic and security challenges arising from member states’ inability to address these problems themselves (Bamfo, 2013). This is not surprising since the fifteen countries that comprise ECOWAS are ranked among the poorest in the world and have weak state capacities (Bamfo, 2013).

The study asks three basic questions viz: (i) Does fragility affect health status in ECOWAS? (ii) What is the impact of fragility on education in ECOWAS? (iii) What is the nexus between fragility and standard of living in ECOWAS? The rest of the paper is structured into four sections. Section 2 discusses the review of relevant theoretical, methodological and empirical accounts on which fragility has been assessed. The methodology is articulated in Section 3, while Section 4 contains the empirical investigations and interpretation of results. Section 5 concludes with policy implications.

Literature Review

The review here is discussed under two sub-headings, these are (i) theoretical review; and (ii) empirical review.

Theoretical Review

It is customary to examine theories that are relevant to the theme of the study. Therefore, the study finds the following theories as germane to the study; (i) Social Contract and (ii) Exit, Loyalty and Voice theories

Social Contract Theory

Hobbes (1652) introduced the Social Contract theory in his book - Leviathan. The theory posits that originally humans lived in a “state of nature” or “state of war”, an anarchical system of survival of the fittest. The absence of suitable social structures raised the fear of loss of livelihoods or lives to other individuals by these rational residents. It would thus be possible to escape this state of nature by signing a Social Contract with others. The Social contract implies that individuals accede some of their sovereignty and rights to a governing body, who dictates for all participants of the contract and reserves the right to exclude those who decide to break it. Hobbes recognized that man is guided by self-interest and rationality, therefore, his submission to the membership of any society stems from the high costs of leaving the contract (Sterdenhall, 2016). The Social Contract consists of two initial agreements between all individuals within the society; the surrender of some rights they previously held against each other; and the collective election of a governing body to gain authority over all participants (Friend, n.d.). All individuals are obliged to abide by the legislations of the government. Punitive measures for deterring members had to be entrenched therein to adequately keep members under control.

Hirschman’s Exit, Voice and Loyalty Trilogy

Albert Hirschman (1970) articulated the Exit, Voice and Loyalty treatise. The fundamental argument put forward by Hirschman for this trilogy was a lapse in the theoretical underpinnings of Neo-classical economics. The latter presumes that consumers’ tastes react sharply to a wrong decision by individual firms in a competitive market and as a result, such firms experience downturn in patronage. Once this happens, consumers will immediately notice this change and will switch to other firms and the firm is bought over by competitors. The existence of monopolies and oligopolies, however, strengthens the basis for Hirschman’s theory.

Exit and voice characterise the means through which an organization detects a decline in their service delivery. For instance, consumption of a firm’s product may decline when the quality of the product drops. Some consumers will notice this by not buying the firm’s product and resorting to competitors. The exit of consumers under his trilogy is not as violent as neo-classical economics makes it to be. Contrary to an absolute drop in public confidence, Hirschman posits that, it is the more quality-aware customers that would decipher this quality change. It is however possible that the drop in sales is not sufficient to drive out the firm from the market. As a result, the management can detect the problem and address it appropriately. He pointed out that this case of exit could only occur because there are alternatives.

In the case of monopolies, the quality of the product irrespective, consumers have no choice but to buy from the monopolist, especially if the commodity is a necessity. Since the consumers have nowhere to go, the only option they have is to voice out to the management. This way of attracting the management is referred to as ‘Voice’. This makes the management aware of the decline, although there’s an uncertainty of a restoration to equilibrium (Zhang, n. d.).

Empirical Review

Amoros, Ciravegna, Mundaakovic & Stenljomn(2017) studied the effects of state fragility and economic development on necessity and opportunity-based individual entrepreneurial
activities. They investigated a multilevel data of 956,925 individuals across 51 countries between 2005 and 2013. Their findings show that state fragility has a positive effect on necessarily-based entrepreneurial efforts while hindering opportunity-based efforts. Their findings also show that the level of economic development moderates the relationship between state fragility and necessity-driven entrepreneurial efforts reduce the likelihood of the latter (Espinosa, Ciravegna, Mandakovic, & Stenholm, 2017).

Dutta & Roy (2016) also established the relationship between state fragility and transparency, using a Generalized Moments Method (GMM) and a new database contained in a global index of information and political transparency introduced in 2014. Their findings show that higher levels of transparency lower state fragility; greater flow of information empowers the populace and restores trust in the government (Dutta & Roy, 2016).

Delechat, Fuli, Mulaj & Xu (2015) determined the role of fiscal policies and institutions in building resilience in Sub-Saharan African countries between 1990 and 2013. They used a probabilistic framework and Generalized Moments Method (GMM) in estimation to address endogeneity and reverse causality associated with the nature of fragile states. Their findings show that fiscal institution namely the capacity to raise tax revenue and contain current spending, as well as lower military spending and, to some extent, higher social expenditure, are significantly and fairly robustly associated with building resilience. These findings suggest relatively high returns to focusing on building sound fiscal institutions in fragile states. The international community can help this process through policy advice, technical assistance, and training on tax administration and budget reforms.

Jacobuta, Asundushi, Tiganas (2015) examined the institutional environment, initial conditions and state fragility in post-communist countries. They aimed specifically at identifying several institutional factors related to state fragility and analysing if the initial conditions at the start towards market economy still have an influence on state performance after half a century of post-communist transformation. Using correlation analysis, their findings show a negative relationship between fragility and institutional factors and confirmed the role of initial conditions. Ferrier (2015) x-rayed the impact of state fragility on economic growth, through state ineffectiveness and political violence of 166 countries between 1993 and 2012. The estimation techniques employed are the Ordinary Least Square and Instrumental Variable (IV) methods. They found out that state ineffectiveness has a significant negative effect on growth using different instrumentation strategies, but political violence has varying sign and significance across various specifications. Finally, the regression results show no robust effect of fragility on growth, when one index is considered.

Shields & Paulson (2014) presented a longitudinal analysis on armed conflict, state fragility and enrollment in primary and secondary schooling between 2000 and 2012. Their study used multi-level modelling techniques to determine how conflict and fragility relates to changes in enrolment. Their findings show that growth in enrolment is significantly lower in conflict-battled countries, but that effect is dependent upon the countries’ overall enrolment level. However, when fragility was controlled for, the effect of conflict was insignificant supporting the view that fragility is an underlying cause of conflict and poor educational outcomes.

Acemoglu, Jimeno & Robinson (2014), in a working paper developed a framework in examining the direct and spill-over effects of local state capacity using the network of Colombian municipalities. They modelled the determination of local and national state capacity as a network game where both local and national authorities make investment decisions in local capacity based on the choices and spill-overs of the choices of other suburbs. The parameters of the model were estimated using the reduced-form Instrumental Variables techniques and the Generalized Method of Moments (GMM). They found out that neighbourhood externalities of state capacities are significant.

Pickbourn & Ndikumana (2013) investigated the impact of sectoral allocation of foreign aid on gender equity and human development outcomes. Their study employed panel data techniques, testing for the country-specific effects using fixed-effects estimations, potential outliers using reweighted least squares and potential endogeneity using the Generalized Method of Moments (GMM). Their findings, however, show that the overall impact of aid on human development depends largely on initial conditions. However, aid affects outcomes differently. While aid appears to be effective in reducing maternal mortality as well as the gender gap in youth literacy despite initial conditions, its effects are at best mixed for other indicators.

Asongu and Kodila-Tedika (2013) assessed the determinants of state fragility in 41 countries in Sub-Saharan Africa between 1999 and 2007. They introduced nation building dimension into the fragility model, hereby testing for state lobbying and rent seeking by de facto power holders as determinants of fragility, alongside other control variables. Using probit regressions, the results show that political interference, rent seeking and lobbying increase the probability of state fragility by reducing the effect of governance capacity. The results also show that the interaction between natural resources and political interferences breed the probability of extreme state fragility.

Sekhar (2010) carried out a cross-sectional analysis covering 149 states in the year 2007. There, he employed a simultaneous equations framework in order to explain vulnerability in political, social and economic sectors of a country. The results show that there is a great degree of simultaneity in the vulnerability in these three domains. Social vulnerability impacts political and economic fragility significantly whereas political
vulnerability has a definite effect on social vulnerability and not on economic vulnerability. Economic vulnerability has a limited effect on the vulnerability in the other two spheres – in the sense that a single dimension alone (either income level or income inequality but not both) appears to impact vulnerability in the social and political domains. Finally, he observed that political vulnerability had insignificant effects on economic vulnerability. Ricciuti & Costa (2010) empirically analyzed the link between incapacity and civil conflict via the manufacturing sector in a panel of 53 African countries between 1970 and 2007. The study employed a random-effect probit-panel data model, involving industrial, economic and social regressors. Their results show that the share of the manufacturing sector over the GDP is negatively correlated with the occurrence of conflict.

Bertocchi & Guerzoni (2010) explored the determinants of state fragility in Sub-Saharan Africa. Using a panel dataset of 41 countries, they sought to examine which of the tri-growth, history or institutions explain fragility best in the sub-region. Their findings show that institutions are the central drivers of fragility, as measured by the number of revolutions and the civil liberties index after taking political endogeneity into consideration. In another study, Bertocchi & Guerzoni (2010) analyzed the link between fragility and economic development in Sub-Saharan countries. In doing so, their study constructed an annual panel dataset for 28 countries between 1999 and 2007. They employed Pooled Ordinary Least Square (OLS) Method. They find that fragility exerts a negative impact on economic development once standard economic, demographic and institutional regressors are accounted for. (Bertocchi & Guerzoni, 2010)

Carment, Prest & Samy (2008) studied the determinants of state fragility by examining the determinants of state fragility by redefining fragility in terms of the Authority, Legitimacy and Capacity (ALC) of states. The study employed Ordinary Least Square (OLS) and Instrumental Variable (IV) estimation techniques in empirically discovering the main drivers of fragility due to the biased results derived from the former. Their findings show that the level of development is a major determinant, even when endogeneity is accounted for.

Estimation Strategy
The estimation technique that will be adopted in analyzing the data collected is the Panel Fully Modified Ordinary Least Square (FMOLS) Technique, developed by Philip and Hansen. The FMOLS estimator generates consistent estimates of the parameters in small samples. It also controls for endogeneity of the regressors and serial correlation. In addition, it addresses the problem of simultaneity biases (Nowbutasing, 2014).

Model Specification
In this section, three models are specified to test the effects of fragility on human development. The variables are represented in logit- and linear-linear forms. The justification for this type of specification hinges on the fact that each of the regressors is expressed as index, it is therefore judged empirically correct in econometric modeling strategy to specify index in a linear form. The functional form of the model is given below:

\[ Y = \alpha(X, FACE, GRGV, UNDEV, SL, RIDP) \]

Where:
- \[ Y = \text{Proxy of human development} \]
- \[ X = \text{Security apparatus index} \]
- \[ FACE = \text{Factorization of elites index} \]
- \[ GRGV = \text{Group grievance index} \]
- \[ UNDEV = \text{Unemployment development index} \]
- \[ SL = \text{State legitimacy index} \]
- \[ RIDP = \text{Refugees and internally displaced persons index} \]

The functional form is hereby transformed into the models below:

\[
\log\text{GDPP}\Delta_t = \beta_0 + \beta_1\text{SECA}\Delta_t + \beta_2\text{FACE}\Delta_t + \beta_3\text{GRGV}\Delta_t + \beta_4\text{UNDEV}\Delta_t + \beta_5\text{SL}\Delta_t + \beta_6\text{RIDP}\Delta_t + \epsilon_{it} \tag{3.1}
\]

\[
\log\text{LE}\Delta_t = \gamma_0 + \gamma_1\text{SECA}\Delta_t + \gamma_2\text{FACE}\Delta_t + \gamma_3\text{GRGV}\Delta_t + \gamma_4\text{UNDEV}\Delta_t + \gamma_5\text{SL}\Delta_t + \gamma_6\text{RIDP}\Delta_t + \epsilon_{it} \tag{3.2}
\]

\[
\log\text{NSER}\Delta_t = \phi_0 + \phi_1\text{SECA}\Delta_t + \phi_2\text{FACE}\Delta_t + \phi_3\text{GRGV}\Delta_t + \phi_4\text{UNDEV}\Delta_t + \phi_5\text{SL}\Delta_t + \phi_6\text{RIDP}\Delta_t + \epsilon_{it} \tag{3.3}
\]

Where:
- \[ \text{GDPP} = \text{Gross Domestic Product per Capita} \]
- \[ \text{LE} = \text{Life expectancy} \]
- \[ \text{NSER} = \text{Net School Enrollment Rate} \]

Given the impact of extreme situations that characterize state fragility which emerges in the loss of lives and properties, the Life expectancy variable was chosen as a proxy for health. This is because it reflects improvement in health care sector and serves as a measure of comparison between countries under similar classification. In the same vein, GDP per capita reflects the measure of output per head in an economy. Given its place as the most widely used proxy for living standards, the study adopts the GDP per capita as a proxy for living standards.

Net school enrolment rate was our choice variable for capturing education. This stems from the drop out of primary and secondary students in areas affected by insurrections.

Data Description
The study makes use of a sample of all 15 countries in the Economic Community of West African States. The study spans the period 2005 to 2015. The methodology of the Funds
for Peace Organization, which results from processing various quantitative and qualitative data, content analysis and millions of documents through the Conflict Assessment Systems Tool (CAST), is adopted. Following CAST analysis, quantitative data from sources such as the UN, WHO, World Fact book, Transparency International, World Bank, and Freedom House are incorporated. The resultant index is the Fragile States Index, which is a way of assessing a state’s vulnerability to collapse or conflict and incorporates 12 separate indicators of fragility – 4 social indicators, 2 economic indicators and 6 political indicators. The study makes use of 6 of them for ease of analysis -2 social, 1 economic and 3 political indicators.

According to the UNDP, human development entails a decent standard of living, a long and healthy life as well as a knowledgeable life. To this end, the levels of human development employed in the study are GDP per capita, life expectancy index and Net School enrollment rate to proxy living standards, health and education respectively.

### Table 3.1: Variables of interests, their descriptions and sources

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>GDP per capita based on purchasing power parity (PPP). GDP per capita is gross national income (GDP) converted to international dollars using purchasing power parity rates.</td>
<td>WDI, 2015</td>
</tr>
<tr>
<td>LE</td>
<td>Life expectancy at birth expressed as an index using a minimum value of 35 years and a maximum value of 85 years.</td>
<td>UNDP, 2015</td>
</tr>
<tr>
<td>NSER</td>
<td>Net School enrollment rate is the ratio of children of official school age who are enrolled in school to the population of the corresponding official school age.</td>
<td>WDI, 2015</td>
</tr>
<tr>
<td>SECA</td>
<td>Security apparatus measures the right of the state to monopoly of force due to the emergence of elite or praetorian guards that operate with impunity. Measurements of security apparatus include internal conflict, riots/protests.</td>
<td>Funds for Peace (various editions)</td>
</tr>
<tr>
<td>FACE</td>
<td>Factionalised elites refer to the fragmentation of ruling elites and state institutions along group lines, which undermines public confidence.</td>
<td>Funds for Peace (various editions)</td>
</tr>
<tr>
<td>GRGV</td>
<td>Group Grievance involves the existence of tension and/or violence between groups, which can undermine the state’s provision of security.</td>
<td>Funds for Peace (various editions)</td>
</tr>
<tr>
<td>UNDEV</td>
<td>Uneven economic development captures perceived inequality in education, jobs and economic status, group-based poverty and education levels.</td>
<td>Funds for Peace (various editions)</td>
</tr>
<tr>
<td>SL</td>
<td>State Legitimacy measures corruption and lack of representativeness that causes citizens to lose confidence in state institutions and processes as captured by corruption, resistance to transparency.</td>
<td>Funds for Peace (various editions)</td>
</tr>
<tr>
<td>RDP</td>
<td>Refugees and internally Displaced Persons concerns displacement in both directions: those leaving and those entering a state.</td>
<td>Funds for Peace (various editions)</td>
</tr>
</tbody>
</table>

**Source:** Authors' Compilation

### Results and Discussion of Findings

#### Panel Unit Root

This study makes use of Newey-West automatic bandwidth selection and Bartlett kernel test to examine the stationarity of the panel series and test the null hypothesis of unit root. It is expected that the series do not contain unit root to find relationship among the variables in the long run. The test is based on Levin, Lin & Chu 1*; Im, Pesaran and Shin W-stat. Augmented Dickey-Fuller (ADF) - Fisher Chi-square and Philips Peron (PP) - Fisher Chi-square critical value.

The Levin, Lin & Chu *null hypothesis assumes common unit root process while the Im, Pesaran and Shin W-stat, Augmented Dickey-Fuller (ADF) - Fisher Chi-square and Philips Peron (PP) - Fisher Chi-square null hypothesis assumes individual unit root process.

The levels of statistics of the tests are reported in Table 4.2 below:

**Table 4.1 Panel Unit Root Results**

<table>
<thead>
<tr>
<th>Variable</th>
<th>LLC</th>
<th>Prob-value</th>
<th>IPS</th>
<th>Prob-Value</th>
<th>Stationarity</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>3.7385***</td>
<td>0.0001</td>
<td>2.58646**</td>
<td>0.0036</td>
<td>(1)</td>
</tr>
<tr>
<td>LE</td>
<td>9.8984***</td>
<td>0.0000</td>
<td>1.75047***</td>
<td>0.0400</td>
<td>(1)</td>
</tr>
<tr>
<td>NSER</td>
<td>4.7490***</td>
<td>0.0000</td>
<td>4.82390***</td>
<td>0.0000</td>
<td>(1)</td>
</tr>
<tr>
<td>SECA</td>
<td>10.4567***</td>
<td>0.0000</td>
<td>2.02940**</td>
<td>0.0272</td>
<td>(1)</td>
</tr>
<tr>
<td>FACE</td>
<td>39.3690***</td>
<td>0.0000</td>
<td>10.8613***</td>
<td>0.0000</td>
<td>(1)</td>
</tr>
<tr>
<td>GRGV</td>
<td>13.1610***</td>
<td>0.0000</td>
<td>1.71536***</td>
<td>0.0000</td>
<td>(1)</td>
</tr>
<tr>
<td>UNDEV</td>
<td>43.0800***</td>
<td>0.0000</td>
<td>4.79423***</td>
<td>0.0000</td>
<td>(1)</td>
</tr>
<tr>
<td>SL</td>
<td>3.7365***</td>
<td>0.0000</td>
<td>8.01365***</td>
<td>0.0000</td>
<td>(1)</td>
</tr>
<tr>
<td>RDP</td>
<td>12.8480***</td>
<td>0.0000</td>
<td>3.471000***</td>
<td>0.0003</td>
<td>(1)</td>
</tr>
</tbody>
</table>

**Note:** ***, ** and * indicate 1%, 5% & 10% level of significance. LLC and IPS represent the Levin, Lin & Chu *null hypothesis and Im, Pesaran and Shin W-stat respectively.

**Source:** Authors' Compilation

From Table 4.1 above, we see that security apparatus, state legitimacy and the refugees and IDPs index exhibited unit common root stationarity at levels. However, all other variables were stationary at first difference. This leads to the rejection of null hypotheses and suggests that the variables are estimable.

#### Panel Co-integration Test

The cointegration test employed is the Pedroni Residual Cointegration Test. The test is undertaken to test the long run co-movement among the variables before any useful conclusion is made regarding relationships between the series. Thus, it is necessary that co-integration exists. In Table 4.2 below, all results show that the Philips Peron statistics is statistically significant at 10% critical value. Therefore, the null hypothesis of no co-integration among the panel series can be rejected. Hence, the variables are interrelated.
with each other in the long run, this means they move together on the long run growth path, and their existing relations are not spurious.

Table 4.2: Panel Cointegration Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>r-stat</th>
<th>p-stat</th>
<th>pp-stat</th>
<th>adf-stat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 3.1</td>
<td>Statistic</td>
<td>4.9717</td>
<td>4.4247</td>
<td>-4.1980***</td>
</tr>
<tr>
<td></td>
<td>weighed statistic</td>
<td>-5.2553</td>
<td>-4.8762</td>
<td>-5.3357***</td>
</tr>
<tr>
<td>Model 3.2</td>
<td>Statistic</td>
<td>-0.2496</td>
<td>-4.3962</td>
<td>-4.9066***</td>
</tr>
<tr>
<td></td>
<td>weighed statistic</td>
<td>-2.6218</td>
<td>-3.7545</td>
<td>-6.1440***</td>
</tr>
<tr>
<td>Model 3.3</td>
<td>Statistic</td>
<td>-4.2408</td>
<td>-3.5378</td>
<td>-5.2803***</td>
</tr>
<tr>
<td></td>
<td>weighed statistic</td>
<td>-4.5516</td>
<td>-3.4297</td>
<td>-1.4677**</td>
</tr>
</tbody>
</table>

Note: ***,** & * indicate 1%, 5% & 10% level of significance respectively

Source: Authors’ Computation

Panel Fully Modified Ordinary Least Square Results

The results of the Panel FMOLS summarized in Table 4.3 shows the effects of fragility on standard of living, health and education.

Table 4.3: Panel Fully Modified Ordinary Least Square (FMOLS) Results

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Log GDPP</th>
<th>LE</th>
<th>Log NSER</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECA</td>
<td>0.0208</td>
<td>-0.3193**</td>
<td>0.0006</td>
</tr>
<tr>
<td></td>
<td>(0.3282)</td>
<td>(0.0275)</td>
<td>(0.6791)</td>
</tr>
<tr>
<td>FACE</td>
<td>0.0505***</td>
<td>0.2382**</td>
<td>0.0279**</td>
</tr>
<tr>
<td></td>
<td>(0.0029)</td>
<td>(0.0351)</td>
<td>(0.6791)</td>
</tr>
<tr>
<td>GRGV</td>
<td>-0.0578***</td>
<td>0.0614**</td>
<td>-0.0801***</td>
</tr>
<tr>
<td></td>
<td>(0.0080)</td>
<td>(0.6721)</td>
<td>(0.8800)</td>
</tr>
<tr>
<td>UNDEV</td>
<td>-0.0294</td>
<td>0.1095</td>
<td>0.0086</td>
</tr>
<tr>
<td></td>
<td>(0.2841)</td>
<td>(0.5891)</td>
<td>(0.8800)</td>
</tr>
<tr>
<td>SL</td>
<td>-0.0746***</td>
<td>0.0568**</td>
<td>0.0062</td>
</tr>
<tr>
<td></td>
<td>(0.0004)</td>
<td>(0.6967)</td>
<td>(0.8800)</td>
</tr>
<tr>
<td>RIDP</td>
<td>0.0566***</td>
<td>0.1513**</td>
<td>0.0191*</td>
</tr>
<tr>
<td></td>
<td>(0.0002)</td>
<td>(0.1325)</td>
<td>(0.8800)</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.9859</td>
<td>0.8207</td>
<td>0.9473</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.9835</td>
<td>0.7885</td>
<td>0.9341</td>
</tr>
</tbody>
</table>

Note: ***,** & * indicate 1%, 5% & 10% level of significance respectively

Source: Authors’ Computation using E-Views 9.0

Table 4.3 shows the effects of the lack of monopoly of force (measured by security apparatus), the actions of factionalized elites and refugees and IDPs, group grievance, uneven development and de-legitimization of the state on human development in ECOWAS. The R-squared shows that the models have overall significance because they are above 50 per cent. A unit increase in the security apparatus index leads to a significant decline in the health index. Although insignificant, a unit increase in the same leads to an increase in GDP per capita by 0.02 per cent and a decline in the enrollment rate by a negligible amount.

This indicates that the proliferation of small and light weapons and other criminal activities that infringe upon the monopoly of force within the states would adversely affect the health of citizens within ECOWAS. More so, a unit increase in the factionalized elites index leads to a relative significant increase in GDP per capita, health and education by 0.05 per cent, 0.238 units and 0.03 per cent. This means that when local and national leaders engage in power struggles, defections and political competition, health education and living standards rise significantly. This could be due to kind gestures towards citizens during electoral seasons to score cheap political scores by providing scholarship schemes.

Furthermore, a unit increase in the group grievance index leads to a relative significant decline in the standard of living, and education by 0.058 per cent, and 0.808 per cent while exhibiting a positive (0.061 unite) but insignificant relationship with life expectancy. This mirrors recent plummeting school enrollment levels amidst higher population growth due to political and ethnic infightings in terrorized areas of the sub-region.

In addition, uneven development exhibits an insignificant relationship between all human development measures. A unit increase in the uneven development index leads to a relative decline in the GDP per capita by 0.02 per cent but a relative increase in net school enrollment rate by 2.93 and 0.01 per cent respectively.

In the same vein, results also show that the de-legitimization of the state (SL) has a negative and significant impact on standard of living, while having positive and insignificant relationships with health and education. A unit increase in the state legitimacy index result in a relative decline in GDP per capita by 0.075 per cent, and a relative increase in health index and net school enrollment rate by 0.056857 units and 0.007 per cent respectively. This means that the higher corruption and lack of representativeness, profiteering and other illicit acts in the economy, the lower the standard of living. This outcome is envisaged since rent-seeking practices by the ruling class result in the diversion of funds meant for improving living standards in the economy.

Ironically, the refugees and internally displaced persons index showed a positive and significant impact on living standards, while exhibiting insignificant relationships with health and education. A unit increase in the RIDP index leads to a relative rise in the GDP.
per capita and net school enrolment ratio by 0.036 per cent and 0.019 per cent respectively whereas a unit increase in RIDP leads to a relative increase in the health index by 0.151 units. The imprecision that characterizes migration data could be a reason for such a result.

Conclusion
Having established the theoretical bases of the study, the time series properties of the variables were tested to test the behavioural consistency of the variables. All the variables were stationary at levels and first difference. Hence, the long-run relationship between the variables was established following the Pedroni Residual Co-integration technique. Based on the analysis, it was discovered that the group grievance has a negative and significant impact on all human development measures considered in the study except life expectancy, which was insignificantly affected. This means that group-based tensions and conflicts have far-reaching implications on the standard of living and education of the ECOWAS sub-region. It was also discovered that the lack of monopoly of force (measured by the security apparatus- SECA) had adverse effects on health. This means that the use of force by unauthorized forces, aggrieved factions impedes life expectancy of individuals in the sub-region.

Furthermore, de-legitimization negatively spurred living standards. This means that corruption and other acts that decrease public confidence have overwhelming effects on living standards.

Finally, it was discovered that the activities of factionalized elites have positive effects on all the indicators of human development. This means that the activities of local and national leaders in deadlock for political gains alongside the pressures have a significant impact on human development. This could be due to the philanthropic moves of political gladiators and the reactive measures of the government to improve the welfare of the homeless.

Policy Implications
The findings from the analyses suggest the following policy recommendations: first, proactive measures are needed to curtail group-based grievances, conflicts and aggressions. Since, it is evident from the empirical enquiry that group based grievances have overwhelming effects on living standards and education, it therefore becomes expedient and imperative for Government of various ECOWAS countries to put in place mechanisms to forestall violence such as regional taskforces and intelligence, organizing consultative forums between the national leaders and religious heads, youths, minority groups, traditional leaders and other stakeholders in the state so as to implement and monitor agreements in order to douse tensions associated with violence and disruptions of economic activities.

Second, institutions should be empowered constitutionally to ensure government expenditure on health is channeled towards improving the quality of services rendered in local hospitals.

More so, incidences of strike actions by health workers should be avoided to ensure they are equipped for emergencies especially those resulting from the proliferation of small and light weapons in the wrong hands. Finally, the findings suggest that social safety nets should be put in place to identify and relieve the vulnerable in the society. This would help in restoring sanctity in the state as crime would be unable to thrive, and the average West African would have access to leading a healthy life, having good educational opportunities as well as improving living conditions.

References
ECOWAS. (2012, December). ECOWAS Community Development Programme. P.21


