

The Pareto Theory of Poverty-induced Corruption

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Abstract
Economies were labelled as under-developed, developing and developed, but the first became a crude label and was dropped. We aim to justify a new third category- the disabled economy, caused by Pareto Economic Disability (PED); which holds when just one or two economic sectors account largely for the GDP but only a small portion of jobs. The absolute differential is the PED index; the higher it is, the higher is the poverty level. Driven by a conceptual model, the study argues that Pareto-induced poverty fuels corruption, and that the interaction effect results in economic disability. Expected relationships were justified using prior literature and the analysis of secondary data on GDP, jobs and per capita income collected from robust Internet sites. The study population are countries in the 2014 Corruption Perception study by Transparency International. The sample were the first twenty, the median twenty and the last twenty as well as Nigeria, being the thirty-first on the list. The results suggest that poverty eradication requires lowering the PED Index via socio-economic diversification, not political manoeuvring over anti-corruption. The finding that poverty causes corruption rather than the other way round is novel and would provoke significant research and governance interests.
Key words: Pareto, Economic disability, Empirical, Poverty, Corruption, Diversification.

1. Introduction

In many developing economies, several social and economic empowerment programmes aimed to lowering absolute and relative poverty often do not deliver significant results. Poverty therefore persists and seems to be a structural problem. The generic objective is to explain poverty in terms of a concept namely Pareto Economic Disability, discuss corruption as the consequence of poverty and adduce some empirical support for the theoretical position. To this end, the study asked the following questions.

1. What is Pareto Disability?
2. Is Pareto disability unique to poorer countries?
3. Are poorer countries more corrupt?
4. To eliminate poverty, should nations fight corruption or the Pareto disability effect?

The following three hypotheses were formulated in the Null form to steer the study.

1. There is no relationship between Pareto Disability and poverty.
2. Poverty has no significant effect on corruption
3. The effective solution to Pareto induced poverty is not socio-economic diversification.

The paper proposes the Pareto Disability Theory to explain the nature of poverty and its relationship with corruption. Pareto Disability is the absence of economic diversification as well as poor distribution of income; which occurs when only one or two economic sectors such as the oil sector in Nigeria accounts for a very high percentage of the GDP but generates only a small portion of direct employment. In such nations, much of the GDP often accrues directly to government agencies rather than autonomous economic entities; and such revenues get squandered through corruptive misappropriation and graft. The central thesis of the study is that Pareto-induced disability causes poverty in the midst of plenty, and that such poverty causes corruption; the joint effect being the failure of economic theory and policy in improving the lot of households and businesses.
The paper is in six sections. Following this introduction, section two presents a conceptual model of study variables. Sections three and four respectively analyses Pareto Disability and discusses its consequences. Data analysis and results, as well as conclusions and recommendations follow in sections five and six.

2. Conceptual Model and Literature Review

This section explains and relates the conceptual variables in the study- Pareto gap, poverty, corruption and economic disability. The nature of the concepts as well as expected relationships and consequences were explored and justified.
The Gross Domestic Product (GDP) is a measure of the income generated by the residents of a nation in the course of their economic activities either as consumers, investors or government agencies. The size of the GDP is a major determinant of economic prosperity, and its perceived collective impact on the citizenry is pivotal in labeling a nation as developed or developing. The theory introduces the Pareto gap as the absolute differential between the percentage contribution of the most significant economic sector and the associated percentage of

direct employment. The wider the gap, the higher is the expected poverty level, and hence, the level of corruption.

The nature and magnitude of Pareto-induced poverty was discussed, followed by some theoretical postulations on corruption as the consequence of poverty. Economic disability as the fourth component of the model, is the consequence of the interaction effect of poverty and corruption on businesses and the failure of social and economic theory and policy to reverse the trajectory of perpetual under-development.

2.1 The Pareto Gap.

The Pareto principle otherwise known as the 80/20 Rule was developed by the Italian economist, Vilfred Pareto as an analytical tool in situations of "the vital few and the trivial many" (Dobler and Burt 2000). The principle has been applied to inventory management, project management and Superstars Management; with management theory proposing that tremendous effort should be placed on the vital few (20 percent) that is critical to 80 percent of accomplishment. Herein lies the Pareto paradox when monolithic national economies focus on the singular economic sectors that generate the greatest chunk of GDP even as they account for very little direct employment of about 20 percent. The end result is economic deprivation / exclusion and mass poverty. This relationship is shown in Figure 1 where the Pareto gap leads to poverty.

Pareto-induced poverty occurs when only one or two items of trade contribute up to 80 % of GDP and only just about 20 % direct employment. Whereas a source of wealth, jobs do not get created even as several other economic sectors may get crowded out. This phenomenon was labeled the Dutch disease after the discovery of North Sea gas and oil led to massive national wealth coupled with growing unemployment and workforce disability (Stiglitz 2004). This perhaps accounts for what The World Bank (1999) described as Nigeria's poverty in the midst of plenty and the challenge of growth without inclusion.

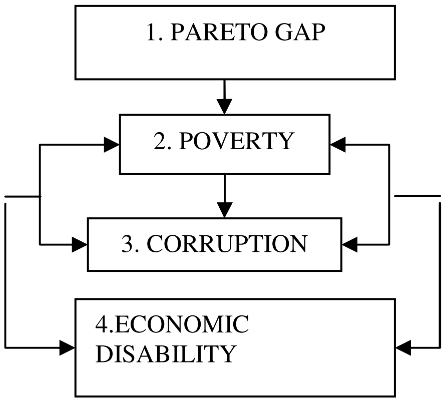

Figure 1. Conceptual Model

The Pareto-gap items of trade are often either primary or secondary extractive outputs such as coal or cocoa and coffee; which have zero absolute advantage due to limited added value. The primary consequence is poor terms and balance of trade, both of which lead to inflationary pressures that make people poorer (Sovemekin 1983; Gul et al. 2012). In addition, the cheaply accumulated Pareto funds accrue directly to government agencies and get wasted to poorly conceived and feebly executed projects. Furthermore, it becomes more profitable for businesses to focus on gaining a share of the Pareto wealth rather than pursuing entrepreneurial activity in other sectors (Pietersz 2005). In essence, the Pareto gap causes and perpetuates poverty through unfair income distribution, inefficient use of resources, and wealth creation without a corresponding level of entrepreneurial effort.

2.2 Poverty

Poverty is the state of lack or denial of money, knowledge or opportunity to access the essential comfort of life and material possessions. It is exclusion from society due to lack of resources (Callan et al. 1993). Poverty is conceived in Figure 1 as the direct effect of the Pareto gap. Six types of poverty have been identified-absolute, relative, temporal, generational, rural and urban (The World Bank 1999; ASCD 2015). It is absolute when there is little or no access to the basic human needs whilst it is relative when, compared to other entities, income is insufficient to meet the society's average standard of living. Poverty is temporal or situational when caused by environmental disasters, divorce, legal loss of property or severe health problems whereas it is generational when within a family, at least two generations were born into poverty.

Absolute poverty seem to have reduced globally since the invention of the steam engine and several other developments including the industrial revolution and mass production of cheaper and more affordable products like motor-cycles, computers and mobile phones. More recently, breakthroughs in agricultural mechanisation as well as organic and chemical inputs have led to higher farm outputs made available at lower prices. However, poorer countries and individuals have been bombarded with often non-essential technologies; which now seem to deplete the funds for the physiological and some higher order needs including children education. In addition, some trade, finance and investment policies adopted by multilateral institutions cripple the efforts of developing countries trying to break-out of poverty. Poverty remained a global challenge as, for instance, one-half of the world's children live in poverty (Adamson 2012) even as Bryan et al. (2013) showed that absolute poverty in Nigeria increased from 44 percent to 72.2 percent between 1990 and 2010.

Relative poverty, the case where perpetually, some few people hold on to so much while the vast majority have so little, make up the true form of Pareto-induced poverty. It is mass poverty within plenty (The World Bank 1999; ASCD 2015), demonstrated in a recent study (Olorunfemi 2007) where 70 percent of Ekiti State residents were found to live below the poverty line; and that to move them over, an average cash transfer of over fifty percent of current income is required.

Poverty has several negative effects, hence, many developing countries including Nigeria strive to eliminate it. According to the United Nations, poverty limits choices and opportunities, violates human dignity, causes insecurity, exclusion and polarisation and also retards the collective strength of a people (Wikipedia 2015). Much worse is relative poverty, which is more negative on the person, the child and the aged. It hurts societal collectivism between the hungry and the well fed. Poverty leads to unstable households, hectic work schedules, ill-health, joblessness and other socio-economic deprivations, all of which perpetuate its cycle (Callan et al. 1993; Olorunfemi 2007). In effect, as the children of poor parents lack education and employable skills, they grow into poor adults, and the cycle continues ad infinitum (Adamson 2012). In their quest to survive, a culture of social vulnerability, power distance, aggressive masculinity and selfish individualism come into play in all aspects of life including work, worship, unionism, politics, crime, domestic and business (Orji 2012; Bryan et al. 2013).

With Pareto-induced poverty causing so much divide in the level of income and deprivations, both the elite and the poor would become willing agent of corrupt tendencies. The former seeks to widen the gap whilst, in contrast, the latter struggles to lower it. The elites in vital national institutions such as the civil service, judiciary, legislature, police, the blue chips and the corporations seek one primary purpose, which is to covertly maintain their hold on the system as a means of economic accumulation (ACEG 2000). Hence, the poor become tools in the elites hands who recruit them for political vandalism, rent them for crowd superiority contests, hide some little money inside loaves of bread for the poor in exchange for their votes, poorly paid formal jobs and bribes for jobs / contracts. Orji (2012) opines that crimes and societal upheavals in Nigeria and Somalia are sustained by jobless youths who barter their energy for corrupt money with the political and bureaucratic elite that use them as ladder to sustain their pinnacles.

From the fore-going discussion, it is tenable that Pareto- induced poverty causes corruption as modelled in Figure 1. Corruption, the very serious type that undermines development seems to be elite-driven, whilst the poor and the weak are the helpless accomplice and victim.

2.3 Corruption

The term "Corruption" means the same thing world-wide. It is "the abuse of public office for private gain" (ACEG 2000; Ijewereme, 2015). It is an interactive process whereby a powerful agent abuses public office to secure private gains at the expense of a weak principal, who is unable to hold the agent accountable. Corruption has been classified as bureaucratic and political (Bello 2010; Ugur and Dasgupta 2011). A third category, private sector corruption would be manifest in nations infected by Pareto-induced poverty, where most businesses are owned by what could be called the "bureau-political" elite. In Nigeria, they often retire as permanent secretaries, directors-general and military commanders to, within months, become CEO of blue-chip companies, state governors and ministers of state. Recently in Nigeria, news-media reports were rife that the Central Bank conducted secret interviews for over ninety top positions offered to family members of the bureau-political elite. A prominent law maker was reported to get three slots for his son, daughter and daughter in-law.

Corruption has been widely theorized as the major cause of poverty (ACEG 2000; Ijewereme, 2015) and supported by a number of empirical results, including significant causality running in both directions (Vahideh et al. 2010; Negin et al. 2010; Ugur and Dasgupta, 2011). Especially in poorer nations, it is popular for politicians as well as multi-lateral financial institutions to roof-shout poverty as a consequence of corruption (Bello 2010). However, it is tenable to argue that the social and income inequalities in poorer countries, which lead to greater imbalance in access to all is the root cause of corruption (Ndikumana 2006). Hence, as the Pareto disability perpetuates this imbalance, the rich few and the poor majority think only about themselves and develop a culture of exceeding individualism. This is how corruption is a consequence of poverty.

Individuality as a consequence of Pareto induced poverty means caring only about one self so much so that societal collectivism is thrown to the dogs. This accounts for why in Nigeria, businesses care only about profits; civil servants (often labelled evil servants) never mind depleting our common wealth through massive corruption; teachers receive financial or sexual bribes from pupils placed under them in trust; politicians cross carpets daily, with senators turning their back on their political parties on the first day of sitting, and so on.

When a nation scores highly on both masculinity and individuality, as it is currently with the Philippine youth (Bernarte 2015), the terrain for the conduct of business, politics and domestic life would become warlike and too rough for the unassuming. The scenario is close to the situation of man eating man in all aspects of national life. Nationalism- the consciousness of belonging to a nation may be lost. The arrogant and unjust would be winning and accumulating wealth by hook or crook means while the decent people go under.

This is why in Nigeria, it is common knowledge that police constables for example are richer than primary school headmasters and secondary school principals just as local government councillors earn more than university professors. In like manner, Nigerian senators selfishly approved for themselves salaries and perquisites that make them the highest paid law-makers in the world, including the USA and Japan. This is kleptomania fuelled by unbridled worship of the affluent by the critical mass of the deprived, who are readily available to serve the evil deeds of the spoilt elite in exchange for their own survival and little drops of the looted funds. Reports abound about secretaries in public offices being too busy in November and December typing and processing payment vouchers for corruptive looting of public funds. In a few cases where some of these elites especially within the political class were indicted and jailed, they were welcomed back to their ethnic nationalities and the larger society with fanfare. Curiously, Nigerians often query why it was their own man and not any of the many corrupt others. Nationalism on trial (Ogundiya, 2009).

In 2013, Transparency International deemed Nigeria one of the most corrupt nations in the world, ranking it as 144th on the Corruption Perception Index (CPI) out of 177 nations studied. In effect, Nigeria was the 33rd most corrupt for that year. The situation improved marginally in 2014 when Nigeria became the 38th most corrupt, having been ranked 136th out 174 nations. The recent rankings were despite the work of anti-corruption agencies including the Economic and Financial Crimes Commission (EFCC) and the Independent Corrupt Practices Commission (ICPC).

Kleptomania as the outcome of poverty inflamed by Pareto Disability has different colorations- cultural, structural, process and institutional, all of which are fuelled by the political leadership and the bureaucracy (Ogundiya, 2009). The cultural dimension is to the effect that the deprived Nigerian children were brought up eating the remnants of the elders and even visitors in the home. Visitors to the home were culturally expected to offer some little cash to the poor children just as neighbours reward almost every child errand with little bits of cash gifts. Nigerian children therefore grow up with their eyes wide open to multi-direction capabilities in kleptomaniac gifts and grabs, which seem more important than the reward for own physical and mental effort. This partly accounts for large scale corruption within all levels of Nigerian national life.

The laws and the public service including the courts and the police are also structured for in-built corruption. Penalties for traffic and minor criminal offences are often fixed by civil servants rather than stakeholders, and are placed at levels beyond the reach of ordinary citizens. In Lagos, minor traffic offences attract up to #20,000, which is above the monthly minimum wage. The offender therefore corruptly begs his way through and pays as a bribe, just about ten percent of the official penalty to the officer in charge. This bribery accounts for the many private mansions and luxury bungalows in the corners of our major towns and suburbs even as neighbourhood access roads, drainage, public schools and hospitals are almost inexistent. In more advanced nations, fines and penalties for equivalent offences and crimes are more friendly and affordable. Indeed, it is tempting to argue that perhaps, the penalties are kept deliberately low so that people could foul them without much worry and make some money for the state. Hence, no need for bribes. The Low Risk - High Risk as well as the Two-Publics theories of corruption (Ijewereme 2015) captured this phenomenon.

Corruption also accounts for the weakness and inability of public sector enterprises to break even and be self-sustaining in the long term. The Nigeria Airways, National Rail, Nigerian National Petroleum Corporation and the Nigerian Postal Service and many other public businesses failed to ever break-even due to persistent abuse and depletion of corporate assets and liabilities through graft and corruptive contractual obligations. For instance, Mr. Akinwumi Adedoyin, a social commentator and Mr. Adeseyi Sijuwade, the Managing Director of Nigeria Railway Corporation were reported to have openly lamented the decades of monumental neglect and corruption by public officers; which have made the corporation moribund, rather than contributing towards the attainment of socio-economic goals, quite unlike in other climes (Pietersz 2005). Indeed, in most developing countries, public corporations keep going under, as many others come into life only to fail again. In the process, they consume chunks of public funds and contribute little or nothing to development (Bello 2010).

Sequel to the Pareto effect of exceeding focus on the singular item of trade that accounts for 80 percent of revenue and 20 percent of employment, the manufacturing and other sectors of Pareto infected economies remain stunted and perpetually weak.

2.4. Economic Disability

Economic disability is conceptualized in this study as the combined effect of Pareto-induced poverty and the attendant corruption. The joint effect is higher costs of doing business, reduced investment, lack of competition, market distortion, income inequalities (Babita 2013). More importantly as a consequence, socio-economic variables behave and relate contrary to orthodox expectations. This signals the failure of theory and policy as well as economic disability. A case in the failure of economic theory is the Phillips curve, which specified a negative relationship between unemployment and inflation (Gul et al. 2012; Al-Zeaud and Al-Hosban 2015). The reality in a Pareto-infested and disabled economy would be high levels of inflation alongside very soaring levels of unemployment; which is in contrast to theoretical expectations. The same applies to the Keynesian investment multiplier that would seem to work in the inverse direction when higher levels of national income are accompanied by lower levels of employment generation (the Pareto gap). The citizenry, the very poor are in double jeopardy of struggle for survival even as businesses face policy inconsistency as government tries a range of trial and error schemes that may never really work.

Many countries such as India and Nigeria that are currently classified as developing economies may need to be de-classified as disabled economies as a means of focusing greater global effort on them. They face greater risk as frustrations and mass de-empowerment via Pareto-infested economic disability may account in part for the rise in global insurgency and violent extremism. Although not at war, there are hazards to the sovereignty of Pakistan, as both inflation and unemployment are rising, and households and firms are getting frustrated and poorer (Gul et al. 2012). This is a movement from developing to disabled economy, where socio-economic variables defy conventional solutions. Nigeria is currently fighting religious extremists in the north and armed militants struggling for resource control in the east. At the same time, the population face massive unemployment and high inflation, made worse by fuel scarcity and now a price hike of nearly 60 percent.

3. Design and Method

The study is an Internet survey of the countries in the 2014 CPI study by Transparency International. A sample of sixty one countries were selected from the 174 countries on the 2014 CPI study. The countries chosen were the first twenty on the list as the least corrupt nations, the median twenty, the last twenty as the most corrupt, and Nigeria as the 31st on the list.

Secondary data were collected from some robust Internet sites on sectoral GDP, sectoral employment and per capita income were studied to identify the incidence of the 80 / 20 Pareto Rule as the measure of the Pareto Disability index. The PD index or gap was conceptualised as the difference between the GDP of the largest contributing sector and the accompanying percentage of total employment in the same sector. This measure of economic disability was tested for empirical effects on per-capital income and the corruption perception data. Sub-sample mean difference tests show that countries with a higher Pareto disability are poorer and also more corrupt. Regression tests for cause and effect relationship between poverty and corruption were valid in both directions. Hypotheses 3 was tested based on the qualitative / descriptive analysis of the theoretical literature.

4. Results

This section presents the data for the study and reports the analysis carried out with a view to test the veracity of each of the four research hypotheses.

4.1 Hypothesis 1.

There is no relationship between Pareto Disability and poverty.

A correlation test was done, followed by linear regression. using as the dependent variable, Income level (poverty) was measured on the basis of the data collected on the per capital income of the countries studied. The Pareto gap was used as the independent variable and tested for impact on income level. Table 1 shows the correlation result. Pareto economic disability and income level have a correlation coefficient of -0.495 at a probability level of 0.01. This means that the lower the Pareto gap, the higher is the level of income. The regression tests returns a coefficient of 0.354 as a measure of the fitness or strength of the model for prediction purposes. Table 2 reports a standardised *B* coefficient of -0.354, which means that an increase of one unit in the Pareto economic disability would lead to a reduction of 0.354 units in the level of income (greater poverty). Table 3 also presents the t-test statistic 7.104 at p=0.000; which means that the observations varied significantly.

Figure 2 reports the mean plot of per capita income as a measure of poverty across the observations classified statistically as low, medium and high Pareto gap countries. The mean score for the medium and high Pareto gap countries were both around $10,000 while it is almost $30,000 for the low Pareto gap countries. The fore-going results provide the evidence to reject the Null Hypothesis of no relationship between Pareto Disability and Poverty. Accordingly, nations where one or two economic sectors account for about for about 80 percent of GDP without a corresponding level of direct employment in the same sectors are poorer. Poverty elimination is hence conditional on the elimination or lowering of the Pareto gap.

Table 1. Correlation between Pareto economic disability and income level.

		Pareto Disability Index
Poverty level	Pearson Correlation	-.495**
	Sig. (2-tailed)	.000
	N	58

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2. Regression test of the impact of Pareto disability on Income (Poverty)

2a. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.354[a]	.125	.109	$20,095.33707

a. Predictors: (Constant), Pareto Disability Index

2b. Regression Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	27551.740	3878.452		7.104	.000
	Pareto Economic Disability Index	-493.394	174.351	-.354	-2.830	.006

a. Dependent Variable: US Dollar Per Capita Income

Table 3. Analysis of Variance

US Dollar Per Capita Income					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.845E9	2	2.423E9	6.344	.003
Within Groups	2.100E10	55	3.819E8		
Total	2.585E10	57			

4.2 Hypothesis 2.

Poverty has no significant effect on corruption.

To test this hypothesis, the procedures applied to test the preceding hypothesis were repeated. A correlation test between per capita income as a measure of poverty level and transparency score returned a coefficient of 0.860 at $p< 0.01$. This means higher per capita income goes hand in hand with higher scores on the transparency list. On the other hand, the linear regression test using per capita income (poverty level) and transparency scores respectively as the independent and dependent variable, returned a model fitness (R^2) of 0.740, and a standardized *B of 0.* 860 at p=0.000 . Table 4a and b present the results. In effect, a unit increase in per capita income (lower poverty level) increases the transparency score by 0.740 (lower level of corruption).

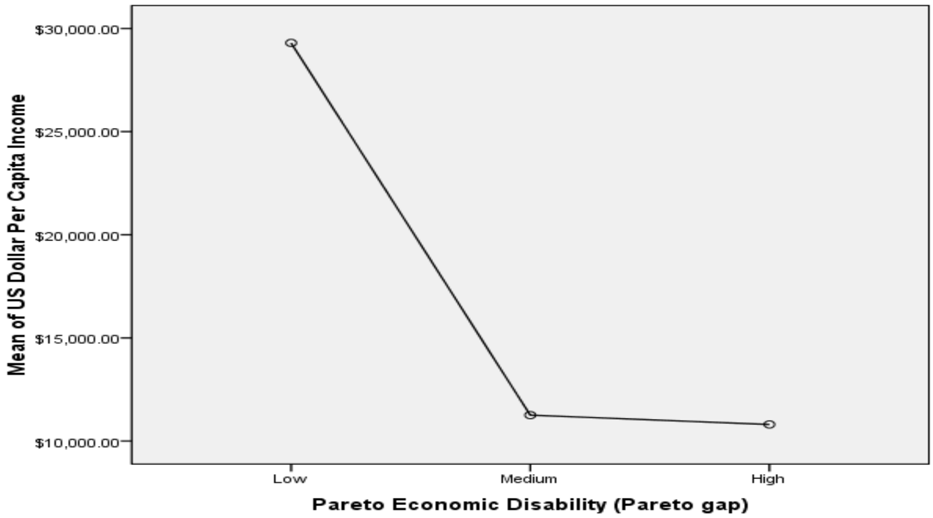

Figure 2. Mean plot of per capita income at different levels of Pareto gap

Table 5 shows the major result of the variance test, which shows an F-ratio of 42.97 at a probability level of 0.00. This is in addition to the information contained in Figure 3; which reports the mean plot of the transparency scores of observed countries at three different levels of Pareto gap- low, medium and high. The mean scores are respectively 20, 30 and 65. The lower it is, the higher is the level of perceived corruption.

Table 4. Regression test of the impact of Poverty on Corruption

4a. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.860[a]	.740	.735	13.98558

a. Predictors: (Constant), US Dollar Per Capita Income

4b. Regression Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	24.745	2.434		10.165	.000
	US Dollar Per Capita Income	.001	.000	.860	12.836	.000

a. Dependent Variable: Transparency Score (Level of Corruption)

Table 5. Analysis of Variance

Corruption Perception Index					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	26197.853	2	13098.927	42.978	.000
Within Groups	17372.747	57	304.785		
Total	43570.600	59			

The foregoing results suggest a strong relationship between poverty and corruption even as they indicate that poverty has a strong predictive power on corruption. Accordingly, it is tenable to reject the hypothesis 3. A reverse regression test between poverty and corruption using them respectively as dependent and independent variables. The R^2 measure of model fit and the *B* coefficient; which measures the predicting power of the dependent variable on the independent variables respectively returned the same values of 0.860 and 0.860 both significant at $p<0.01$. This result confirms the duality of the relationship between poverty and corruption found in previous works (Vahideh et al. 2010; Negin, Rashid and Nikopour, 2010 Ugur and Dasgupta, 2011). However, the predictive power of this type of poverty (Pareto-induced) on corruption is stronger in this study.

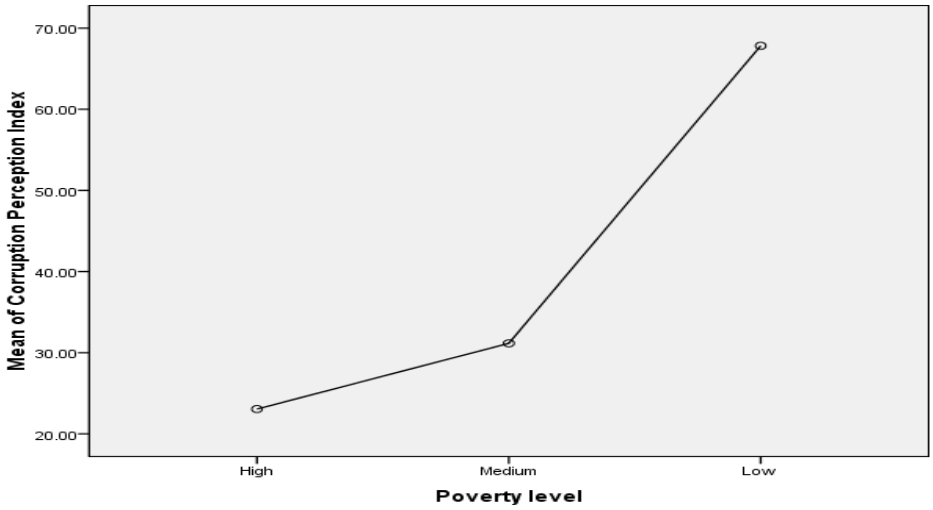

Figure 3. Mean plot of Corruption Perception Score at different levels of Poverty

4.3 Hypothesis 3.
The effective solution to Pareto-induced poverty is not socio-economic diversification.
This hypothesis was tested on the weight of theoretical evidence extracted from the literature on the most effective way forward with poverty eradication. The evidence, as listed below suggest that poverty eradication required socio-economic diversification, rather than just a war on corruption; which is a system problem and hard to fight directly.
a. Bryan et al. 2013
The solution to poverty eradication is the pursuit of a "viable diversification policy that will reduce dependency on oil revenues" and "privatisation"; which entails the transfer to the private sector some operational control and substantial assets of public enterprises.
"there should be structural and institutional reforms that will permeate all the sectors", especially "pro-poor programmes and measures" targeted at the "rather forsaken and abandoned rural poor".
b. Bello 2010
"Despite its malign effect, corruption is not the main cause of poverty" and exceeding focus on roof-top "anti-corruption crusade by the middleclass and the World Bank will not meet the challenge of poverty".
"China, Philippines and some other South East Asian countries where most of the global reduction in poverty have taken place were marked by high degrees of corruption". The decisive difference in their performance was the pursuit of "socio-economic diversification" of the GDP and employment base.

c. Ugur and Dasgupta 2011
"The direct effect of corruption on GDP growth in developing countries is small, the total impact being -0.59 percent". The results suggest that "a wider set of policies aimed at improving institutional quality and providing correct incentives for investment in human capital" is crucial to poverty eradication.
d. Hausmann 2015
...... "countries that are relatively less corrupt, for their level of development, such as Ghana, Costa Rica, or Denmark, do not grow any faster than others". Hence, poverty persists because nations and multi-lateral agencies are too pre-occupied with "fighting the bad" (corruption) rather than "creating the good". The good is a capable state that improves the lot of the people through economic diversification and effective socio-economic infrastructure.
e. Ayodel 2009
Let's not talk of stopping corruption..... Instead, start to invest on how to improve literacy, change our bad social conduct and widen the access to socio-economic resources which, at the end, will fight corruption. We have to start with the young ones to control what they are taught in school and have rallies on enhancing our bad social conduct.....
f. ACEG 2000
Poverty and corruption exist by design, not by accident. Administrative reforms and economic liberalisation in many cases have led to more deadly forms of economic deprivation rather than improve matters significantly. The solution lies in economic diversification driven by new values.
g. Georgescu 2013

Following increased awareness of the seriousness of corruption and signals from the international community, "the Romanian society has taken steps but the Corruption Perception Index still situates the country on an inferior position". Required is "a high degree of employment intensity in the reduction of poverty"

The fore-going referenced works are not by any means against anti-corruption. However, it is inadequate for the special type of poverty identified and justified in this study, the solution to which is evidenced in the main theme of the eight quoted works above. It is socio-economic diversification that provides jobs for the vast majority of the citizenry. Philippines and China went that way and were able to conquer poverty and corruption (Bello 2010; Bernarte 2015). Accordingly, it is justified to reject Hypothesis 4; which states that the effective solution to Pareto-induced poverty is not socio-economic diversification.

5. Specific Cases of Departure from the Conceptual Model

The observed cases were studied for the level of compliance and specific exceptions to the evidence obtained from empirical results. Twelve countries were classified as high in Pareto Economic Disability index (Pareto gap); nine of which were identified as highly poor and corrupt. Table 6 reports the confirming and exceptional cases. The exceptions are Finland, Norway and Sweden, all of which have a high Pareto gap ranging from 21.10 to 41.80, but are associated with the lowest levels of poverty and corruption. These are highly peaceful and stable political economies where, perhaps some social investment sectors have developed that absorb the employment shortfalls of the economic sectors that contribute the large chunk of the GDP.

A second form of exceptional cases were identified with Yemen and Haiti. The two countries Pareto gap were exceptionally low at 0.00 and 4.90 respectively, and were hence expected to be identified with the least poor and corrupt. Rather, they were found to be poor and corrupt. For Yemen, the low Pareto gap arises from a low population of 27.5 million, more than 50 percent of which is engaged in agriculture but with a meagre contribution of just about 20 percent to GDP. The attendant poverty is in part due to government's diversification efforts focusing exceedingly on agriculture with low added value without a commensurate attempt at industrialization. This is in addition to political instability that has undermined development efforts. Similarly, Haiti has a low population of 10.5 million with just an unemployment rate of 6.8 percent. It faces political volatility even as governance institutions remain weak and inefficient.

Table 6. Specific Cases of Exception from Theoretical Expectations

Nations	GDP % by major Sector(s)	Jobs % by major sector(s)	Pareto gap	Poverty level	Corruption level	Remarks
Finland	70.30	28.50	41.80	Low	Low	High Pareto gap but low poverty and corruption
Norway	56.50	77.60	21.10	Low	Low	
Sweden	64.80	86.00	21.20	Low	Low	
Yemen	64.00	64.00	000	High	High	Low Pareto gap but high poverty and corruption
Haiti	55.30	50.40	4.90	High	High	

Aside from the two forms of exceptional cases reported in Table 6, the remaining nine countries with highest Pareto gaps are all characterised by highest levels of poverty and corruption. The countries are Zimbabwe, Burundi, Guinea-Bissau, Eritrea, Uzbekistan, Afganistan, Sudan, North Korea and Somalia. Zimbabwe and North Korea are known for a long period of dictatorship and war-path with the rest of the world, while the remaining seven appear to be at the end of the precipice in terms of poverty, economic insecurity, militarization and failed statehood. These nine are the countries proposed in this study for labelling as disabled economies, not to malign but to focus on them more global attention for a rescue mission / intervention.

The rest of the forty-six countries in the study were classified either as low or medium Pareto gap economies. The gaps range from 0.40 and 0.70 respectively for Denmark and Switzerland to 14.30, 14.70 and 17.40 in turns for Sri Lanka, Bosnia / Herzegovi and Hong Kong. These countries are all richer and less corrupt. With these reports, the conceptual model in Figure 1 is justified.

6. Conclusions and Recommendations

This study justified the proposed conceptual model of Pareto Economic Disability as a fundamental cause of poverty, Pareto-induced poverty; which in turn leads to corruption. The empirical results provide the justification

for a new category of nations that appear disabled on the basis of the Pareto effect. This label would be useful in focusing global attention on the peculiar nature of the poverty they face, as identified in this study.
Many of the high Pareto countries; which are both poorer and more corrupt, especially Nigeria, employ a wide range of constitutional, legislative, legal and advocacy frameworks including the Economic and Financial Crimes Commission and the Independent Corrupt Practices Commission, but the results are often poor. Presently, the Federal Government of Nigeria spends more time fighting corruption than on governance itself. However, this results from this study suggests that corruption would persist, being an effect of Pareto-induced poverty. In essence, to eliminate corruption, eradicate poverty by removing or reducing Pareto Economic Disability through massive socio-economic diversification. This is a structured process of growing and nurturing a range of economic outputs, products / service, income sources, export markets as well as reforms in governmental practices towards more responsiveness to societal needs. In the light of the evidence presented in Section 4.3, This seems to be a more practical means of boosting consumer power, the investment multiplier effect and the prosperity of a larger proportion of the citizenry.

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