

## **E-Government Initiative in Sub-Saharan Africa as a Strategy for Reducing Corruption in the Public Sector: A Comparative Assessment of Sub-Regional Performance**

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### **Abstract:**

*This paper examines the e-government initiative as a strategy for reducing corruption in Sub Saharan Africa. Many governments globally have started appreciating the need for increased openness and transparency in their government and this has led to the adoption of e-government as a means of curbing corruption by some African leaders. The purpose of this study was to examine corruption levels in South Saharan Africa, identifying the least and most corrupt areas and to investigate factors hindering the use of e-government to fight corruption and proffer strategies to curb corruption through e-government. The population was all forty five countries that adopted e-government in Sub Saharan Africa (SSA). The Cumulative Corruption Index (CPI) extracted from Transparency International over the period from 2012 to 2017 was calculated and the average score used to measure the level of corruption in the various regions of the zone. This study revealed the least corrupt states as Botswana, Seychelles, Mauritius and Rwanda and the most corrupt states as Somalia, Togo, and Sierra Leone from all the regions of SSA. There was a significant positive correlation of the level of Internet penetration with the level of corruption in the zone. Factors hindering the effective use of e-government to fight corruption such as high cost of procuring and maintaining modern technology amongst others were delineated. Recommendations such as support of the use of social media to campaign against corruption and many others were proffered.*

**Keywords:** E-government, corruption, government, South-Saharan Africa, Transparency.

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## Introduction

Corruption is universally considered as one of the most significant setbacks to development in many developing countries of the world including Africa. For example, since the attainment of political independence, corruption has been fingered as the greatest impediment to socio-economic and political development in Africa (Amegavi, Aduo-Adjei, & Owusu, 2017). Corruption is viewed as the misuse of public powers for private benefit (Transparency International, 2016); the abuse of public office for private gain (Sokim, Xiaolin, and Dong, 2015); the misuse of public power, authority, property and funds for selfish ends (Seo and Mehedi, 2016). Uneke (2010) reported the African Union to have estimated that corruption costs Africa more than US\$148 billion yearly. The Transparency International (TI) (2016) reported that corruption, bribery, and tax evasion cost developing countries US\$1.26 trillions yearly. Effects of corruption include: underdevelopment, depletion of national wealth, brazen mismanagement among others (Asorwoe, 2014). All these and more have prompted the TI (2012) to conclude that corruption remains the most single challenging factor that hinders eradication of poverty in Africa.

The Sub-Saharan Africa (SSA) is a geographical area that lies south of the Sahara desert. It comprises of four regions and forty-five (45) independent states. Writers on electronic government (e-government) in developing countries like Heeks (2002), Ndou (2004), Sudan (2005), Kitaw (2006), Ogunloye (2010), Adeyemo (2011, Asogwa (2011, 2013 & 2015) have found out that e-government has the potential to fight corruption in the public sectors.

Since the advent of (ICTs) electronic government (e-government) have been adopted by many African leaders to enhance the range and quality of public services in their countries. Studies on the benefits of e-government as a weapon against corruption are numerous. E-government reduces corruption by simplifying administrative processes and providing greater access to government information (Bhatnagar, 2003). It centralizes and integrates data for better audit (Ifinedo, 2012); provides customer-focused, cost-effective and easy services to the citizens (Ndou, 2004). Citizens no longer have physical contacts with government officials and the temptation to give or take bribes before services are obtained is limited (Asogwa 2013). It strengthens good governance and broadens public participation (Ndou, 2004), among other benefits.

The problem is that successive leaders in Africa have claimed to have initiated e-government as a strategy to curb administrative corruption in the public sector. The question now is: has the adoption of e-government by African leaders reduced corruption in their states? The latest Corruption Perception Index (CPI) released by Transparency International (TI) (2017) shows that 122 out of the 176 world countries scored below 50 and the 122 corrupt nations in the world were from developing countries. Most leaders in each sub-region have taken different steps in fighting corruption, but the extent these regional leaders have minimized corrupt practices is uncertain. However, reports by TI have failed to provide an overview of the current status of corruption reduction in each region. The purpose of this study therefore is to:

- Compare the level of corrupt practices among states in sub-Saharan Africa;
- Determine the least corrupt state in sub-Saharan Africa;
- Determine the most corrupt state in sub-Saharan Africa;
- Expose the factors hindering the use of e-government to fight corruption;
- Discuss strategies for curbing corruption through e-government initiative;
- And make recommendations

## Methodology

The population of the study was all the 45 countries that have adopted e-government in the delivery of public services in Sub-Saharan Africa. Data were also collected from secondary sources. The Corruption Perception Index (CPI) 2012 to 2017 by Transparency International was extracted and used as data for measuring the extent states in Sub-Saharan Africa have reduced corrupt practices in their public sectors. The cumulative CPI of each state from 2012 to 2017 was calculated and the average score used to measure the level of corruption in the region.

## Method of Data Analysis

The study used a 4-point scale as a bench mark for assessing the level of corruption in each region. Therefore, a country's level of corruption was based on a scale of 0 – 100% (where 0% means that a country is perceived as highly corrupt, and 100 % implies that the country is perceived as transparent or not corrupt. The criterion of judgment was that any state or sub-region with an Average Cumulative Corruption Perception Index (ACCPI) from:

- 70 - 100% was considered very high transparent (or very low corruption);
- 50 – 69% was rated high transparent (or low corruption);
- 30 – 49% implied low transparent (or high corruption);
- 00 - 29% means very low transparent (or very high corruption).

## Results: Comparative Analysis of CPI

Table 1: Status of Corruption in Sub-Saharan Africa 2012-2017

YEAR	Status of the most corrupt states		Status of the least corrupt states	
	Most corrupt	STATUS	Most Transparent	STATUS
2017	Somalia (9)	Very High Corruption	Botswana (61)	Low Corruption
2016	(10)		(60)	✓
2015	(8)		(63)	✓
2014	(8)		(63)	✓
2013	(8)		(64)	✓
2012	(8)		(65)	✓

**Source:** Transparency International, CPU 2017.

Table 1 has shown that in the Sub-Saharan Africa, Botswana was the most transparent country from 2012 to 2017. Ranked 34th and 35th in the world in 2017 and 2016 respectively, literature has revealed that it was the most transparent or the least corrupt state in the continent since 1998 - 2017.

From the above table, it is clear and worrisome that since 2012 Somalia has consistently been the most corrupt country in African continent. This could be attributed to the quality of leadership.

Table 2: Level of Corruption in Central Africa

STATES	2017	2016	2015	2014	2013	2012	TOTAL	Average	Judgment
<b>Sao Tome &amp; Principe</b>	46	46	42	42	42	42	260	43.3	HC
<b>Gabon</b>	32	35	34	37	34	35	207	34.5	✓
<b>Cameroon</b>	25	26	27	27	25	26	156	26.0	VHC
<b>Ca Republic</b>	23	20	24	24	25	26	142	23.7	✓
<b>Republic Of Congo</b>	21	20	23	23	22	26	135	22.5	✓
<b>Dr Congo</b>	21	21	22	22	22	21	129	21.5	✓
<b>Chad</b>	20	20	22	22	19	19	122	20.3	✓
<b>Angola</b>	19	18	15	19	23	22	116	19.3	✓
<b>Equatorial /Guinea</b>	17	na	na	na	na	na	17	17.0	✓

Source: Transparency International, CPI 2017

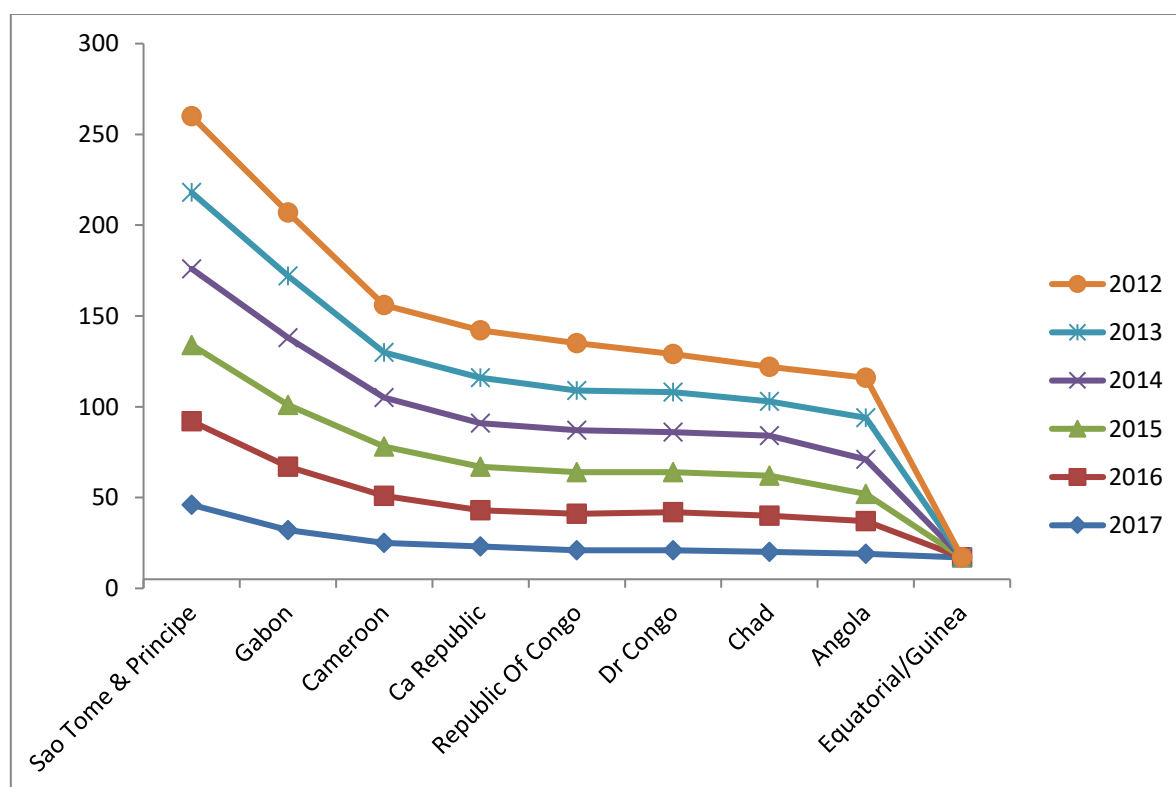


Table 2 presents the status of corruption in the Central African Sub-region for six years, 2012 to 2017. It shows that in the Sub-Region, Sao Tome & Principe with an average cumulative corruption perception index (ACCPI) of 43.3 was the least corrupt state, while Angola was the most corrupt country. The ACCPI (19.3) of Angola was the least. Though Equatorial Guinea was at the bottom of the ranking, it was not considered as the most corrupt because it's past corruption status was not ascertained until in 2017. This result has fortified that of Mikailu, Kighir, and Omar (2013) who found that there was more corruption in the central African countries, followed by eastern Africa and then western African countries.

Table 3: Level of Corruption in eastern Africa

STATES	2017	2016	2015	2014	2013	2012	TOTAL	Average	Judgment
<b>Seychelles</b>	60	na	na	na	na	na	60	60	LC
<b>Mauritius</b>	50	54	53	54	52	57	320	53.5	✓
<b>Rwanda</b>	55	54	54	49	53	53	318	53.0	✓
<b>Zambia</b>	37	38	38	38	38	37	226	37.7	HC
<b>Djibouti</b>	31	30	34	34	36	36	201	33.5	✓
<b>Ethiopia</b>	35	34	33	33	33	33	201	33.5	✓
<b>Malawi</b>	31	31	31	33	37	37	200	33.3	✓
<b>Tanzania a</b>	32	30	31	33	33	35	194	32.3	✓
<b>Comoros</b>	27	24	26	26	28	28	159	26.5	VHC
<b>Kenya</b>	28	26	25	25	27	27	158	26.3	✓
<b>Uganda</b>	26	25	25	26	26	29	157	26.2	✓
<b>Eritrea</b>	20	18	18	18	20	25	119	19.8	✓
<b>South Sudan</b>	12	11	15	15	14	na	67	11.2	✓
<b>Somalia</b>	9	10	8	8	8	8	51	8.5	✓

Source: Transparency International, CPI 2017

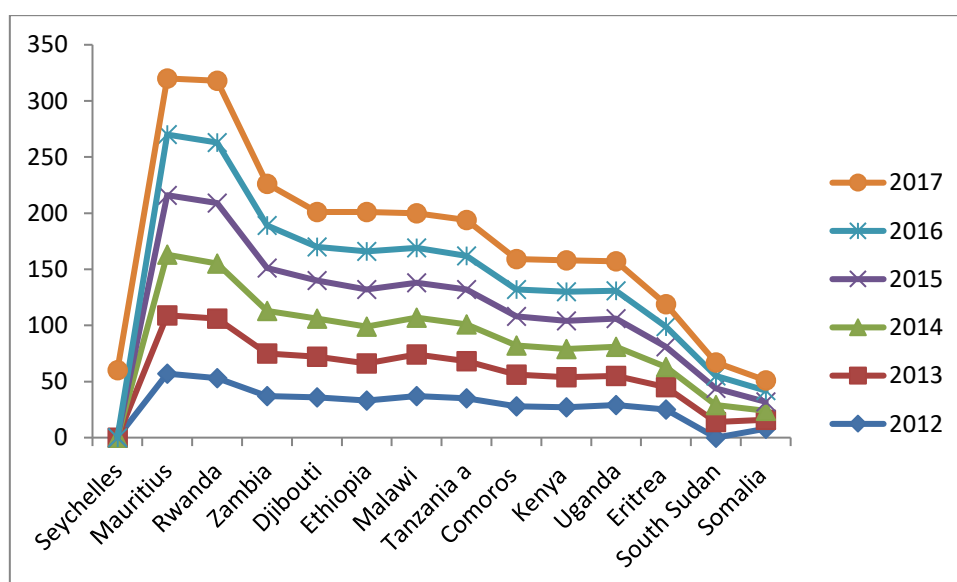


Table 3 presents the corruption status of Eastern African Sub-region for the years 2012 to 2017. It reveals that Mauritius was the most transparent country in the region followed by Rwanda. While Mauritius has an ACCPI of 53.5, that of Rwanda was 53.0. In this study, Seychelles was not considered the least corrupt state in the region because the past status of its CPI was not released until 2017. The table shows that the most corrupt state in the sub-region was Somalia. It has an ACCPI of 8.5 which was the least in the global ranking and Africa in particular.

Table 4: Level of Corruption in Southern Africa

STATES	2017	2016	2015	2014	2013	2012	TOTAL	Average	Judgment
<b>Botswana</b>	61	60	63	63	64	65	376	62.67	LC
<b>Namibia</b>	51	52	53	49	48	48	301	50.17	LC
<b>South Africa</b>	43	45	44	44	42	43	261	43.50	HC
<b>Lesotho</b>	42	39	44	49	49	45	268	44.67	
<b>Swaziland</b>	39	NA	NA	NA	NA	NA	39	39	
<b>Madagascar</b>	24	26	28	28	28	32	166	27.67	
<b>Mozambique</b>	25	27	31	31	30	31	175	29.17	VHC
<b>Zimbabwe</b>	22	22	21	21	21	20	127	21.17	

Source: Transparency International, CPI 2017

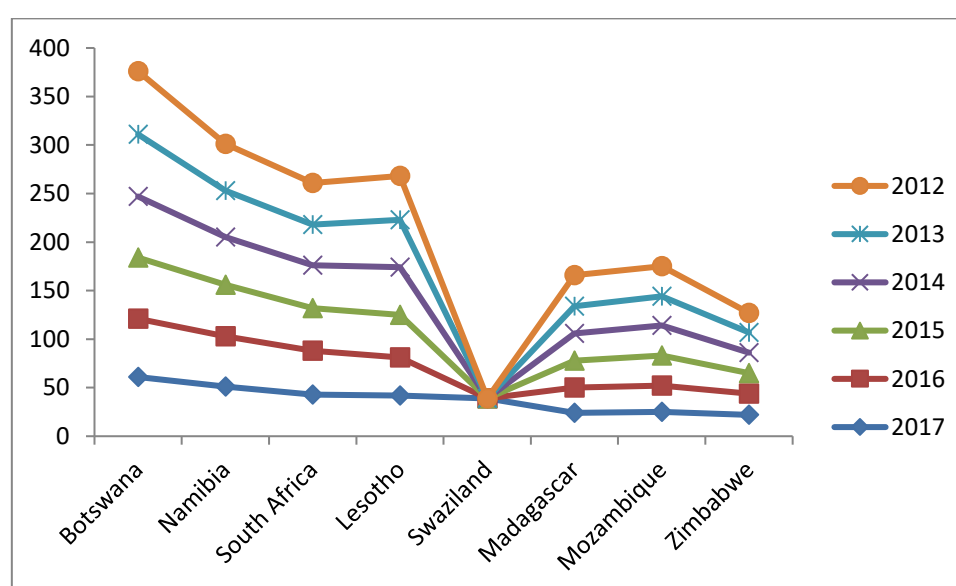


Table 4 presents the status of corrupt practice in the Southern African Sub-region for the years 2012 to 2017. It shows that Botswana was the most transparent states followed by Namibia. While Botswana has an ACCPI of 62.7, Namibia has 50.2. On the other hand, Zimbabwe was the most corrupt state in the region with an ACCPI of 21.2.

Table 5: Level of Corruption in West Africa

States	2017	2016	2015	2014	2013	2012	Total	Average	Judgment
<b>Cape Verde</b>	55	59	55	57	58	60	344	57.33	LC
<b>Ghana</b>	40	43	47	48	46	45	269	44.83	HC
<b>Senegal</b>	45	45	44	43	41	36	254	42.33	
<b>Burkina Faso</b>	42	42	38	38	38	38	236	39.33	
<b>Liberia</b>	31	37	37	37	38	41	221	36.83	
<b>Benin</b>	39	36	37	39	36	36	223	37.17	
<b>Liberia</b>	31	37	37	37	38	41	221	36.83	
<b>Niger</b>	33	35	34	35	34	33	204	34.00	
<b>Mali</b>	31	32	35	32	28	34	192	32.00	
<b>Togo</b>	32	32	32	29	29	30	184	30.67	

<b>S/Leone</b>	30	30	29	31	30	31	181	30.17	
<b>Gambia</b>	30	26	28	29	28	34	175	29.17	VHC
<b>Nigeria</b>	27	28	26	27	25	27	160	26.67	
<b>Guinea</b>	27	27	25	25	24	24	152	25.33	
<b>Guinea Bissau</b>	17	16	17	19	19	25	113	18.83	

Source: Transparency International, CPI 2017

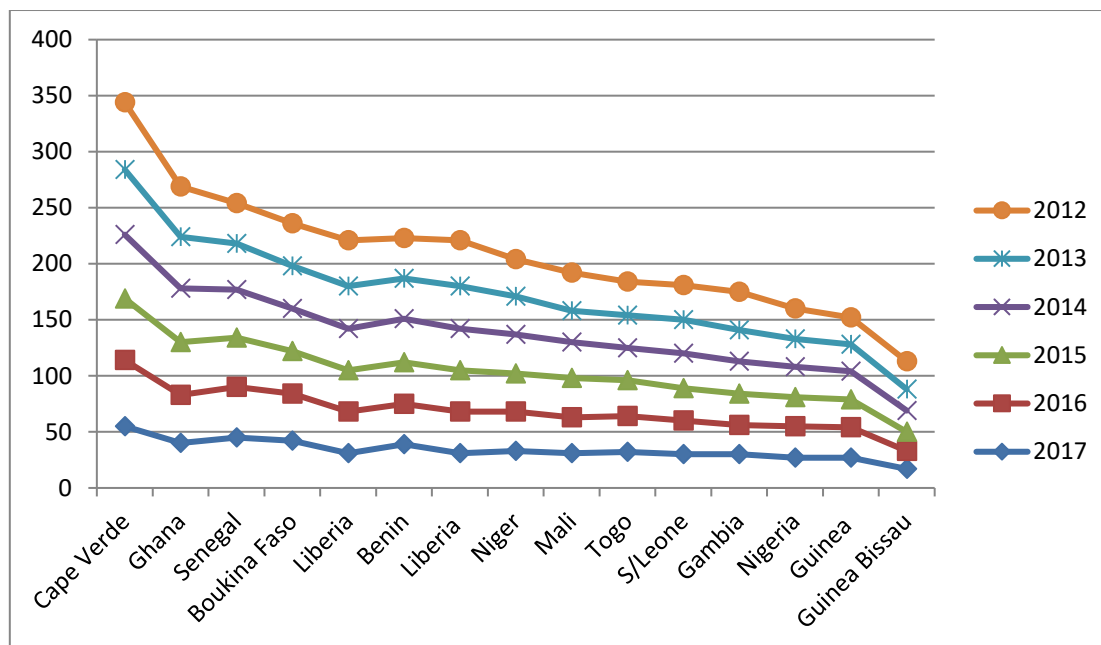
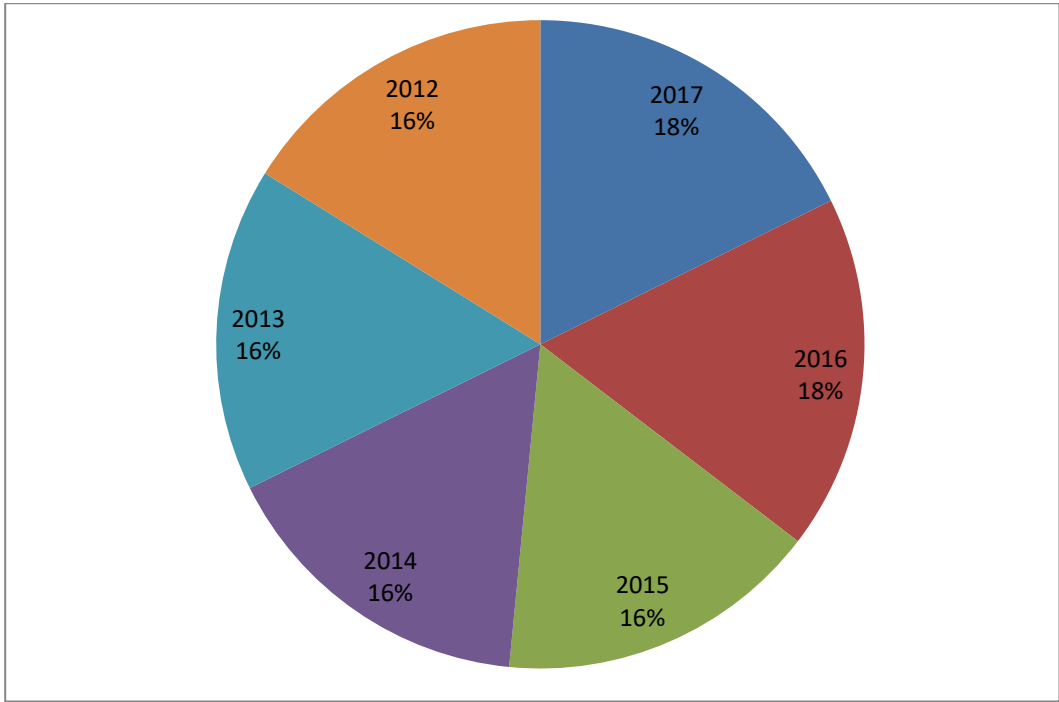


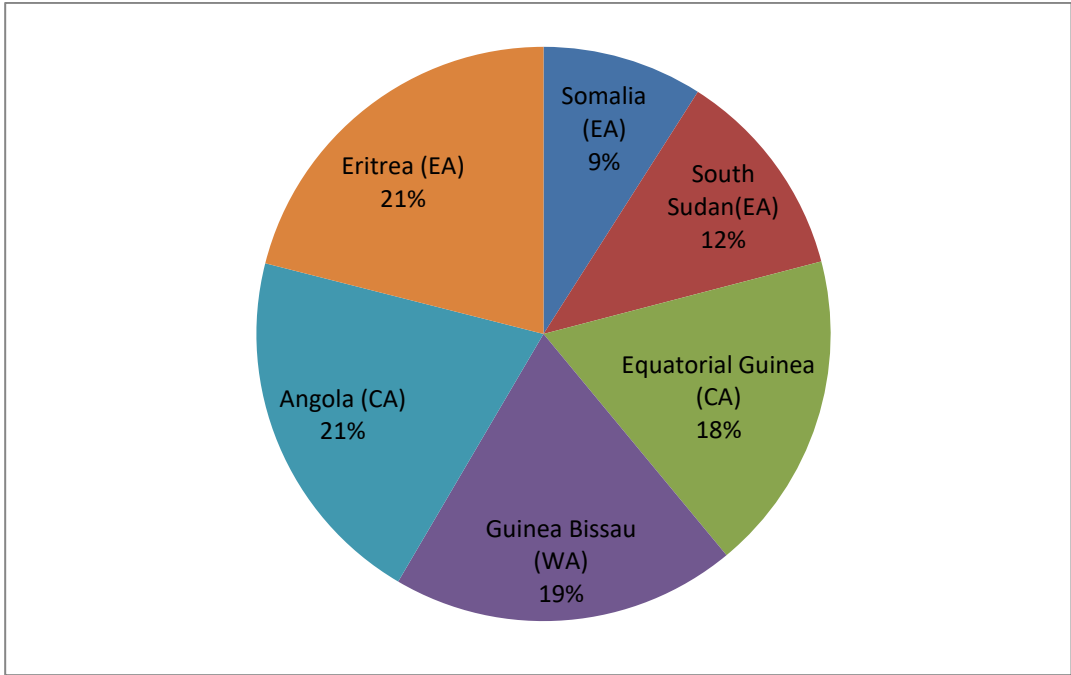
Table 5 presents the corruption status of states in Western African Sub-region for the years 2012 to 2017. The table shows that with an ACCPI of 56.5, Cape Verde was the least corrupt state and Guinea Bissau the most corrupt country in the region with an ACCPI of 18.3. Only Cape Verde scored 50 and above while the remaining 14 states scored less, showing a high level of corruption in the region. This implies that e-government initiative was not curbing corrupt practices in this region.

Table 6: Summary of the Level of Corruption in SSA

Ranking	Most Transparent States	ACCPI	Most corrupt states	ACCPI
1	Botswana (SA)	62.7	Somalia (EA)	8.5
2	Seychelles (EA)	60.0 (2017)	South Sudan(EA)	11.2
3	Cape Verde (WA)	56.5	Equatorial Guinea (CA)	17.0
4	Mauritius (EA)	53.3	Guinea Bissau (WA)	18.3
5	Rwanda (EA)	53.0	Angola (CA)	19.3
6	Namibia (SA)	50.2	Eritrea (EA)	19.8



**Most Transparent States**



**Most Corrupt States**

**Analysis of the Problem**

For further verification, internet penetration in the SSA was correlated with the level of corruption in the zone. Internet penetration of the least corrupt countries with the most corrupt in the world was examined. It was found out the least corrupt countries had higher internet penetration and more freedom of access to government information. For example, Sweden, Denmark, the Netherlands, Finland and New Zealand were among the least corrupt countries in the world and also among the top 50 countries with the highest internet penetration with



over 90% in 2017 (Internet World Statistics, 2017). These countries were also found to have very *high human development index (HDI)*. No country in the SSA Africa appeared in the list. This suggests that the level of internet penetration could ensure greater citizens access to government information and a better strategy against corrupt practices.

On the other hand, in the SSA internet penetration in the region was used to compare the most corrupt with the least corrupt countries in the sub-region. It was found that the percentages of internet penetration in the least corrupt states like Botswana, Seychelles, Mauritius, and Rwanda were higher than those most corrupt countries. For example while Seychelles and Mauritius each has 60.3% and 59.6% in 2016, Somalia, Togo, and Sierra Leone has 6.1%, 5.5% and 5.2% respectively (Internet World Statistics, 2017). This suggests that the more chances the citizens have access to the internet and government information, the greater the governments could win the war against corruption.

### **Factors Hindering the Use of E-Government to Fight Corruption in Africa**

The war against corruption in the SSA is hindered by some of the following factors: weak institutional capacity to fight corruption; high cost of procuring and maintaining modern technological infrastructure; constant changes in ICT software and hardware; conflicts and terrorism affect the ability of countries to provide uninterrupted power and full internet services.

### **Strategies for Curbing Corruption through E-Government Initiative in SSA**

Some strategies have been proffered for curbing corruption in SSA through e-government and these include:

- African leaders should create Websites where citizens can report their experiences on bribery and corruption as practiced in India. For example, in India, the Central Vigilance Commission (CVC) created a website where information relating to corruption in government offices is reported. By this, citizens were given opportunities to make their complaint against public servants who are involved in bribery publicly (Asogwa, 2013).
- ICTs should be increasingly used to monitor government budgeting, expenses and other activities. For example, the introduction of electronic documentation system in Ghana improved the efficiency of trade by making clearance time at the Kumasi International Airport (KIA) drop from three days to four hours and thereby reduced all unnecessary delays that created chances for officials to give or take bribery.
- All African leaders should pass and implement freedom of access to government information.
- African leaders should increasingly support the use of social media (Face book, Twitter, etc) to campaign against corruption and to mobilize the citizens to put pressure on and expose politicians involved in corruption,
- African leaders should adopt e-procurement in all government transactions as a strategy to promote transparency and accountability in the public sectors (Scholl & Ubaydi, 2017).
- African governments should computerize all major government financial transactions as a way of curbing corruption. In Nigeria, *e-pension system* was used to conduct biometric of all pensioners in Nigeria covering 52 years (1960 – 2012). And after the biometrics of 170, 000 pensioners were captured, thirty-five billion naira (N35, 000, 000, 000) was recovered from fraudsters and total of N187.3 billion recovered when it was carried in each pension office in Nigerian government ministries (Uwerunonye, 2013).

- Surveillance machines that monitor and follow up the work of public servants should be installed so that individuals to monitor all activities/transactions in offices.
- Provision of steady power supply and full internet services to ensure uninterrupted access to government information

### **Conclusion and Recommendations**

This paper has found that the most transparent region was Eastern Africa followed by Southern Africa; that Botswana, Seychelles, Cape Verde, Mauritius, Rwanda and Namibia were the least corrupt countries in the SSA; while Somalia, South Sudan, Equatorial Guinea, Guinea Bissau, Angola and Eritrea were the most corrupt in the continent. These most corrupt regions and states are the most afflicted by very minimal internet penetration and use of ICTs, war, poverty, diseases, low gross domestic product, persistent internal conflicts, and terrorism.

If e-government can reduce the incidence of corruption in Denmark, New Zealand, Singapore, Finland, etc.. to very low level, corruption in the SSA with proper deployment of e-government can be curbed if leaders are determined.

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