# The Link between Democracy and Development in Africa: What does Data tell us?

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**Abstract**
This study attempts to explore whether and to what extent the quality of democracy and development are related in Sub-Saharan Africa. Using system Generalized Methods of Moments on data from 36 countries available from various international secondary data sources for the period from 2002 to 2019, this study reveals that the single best predictor of the quality of democracy in the region is represented by the quality of democracy and that political stability is instrumental in securing the quality of democracy, while unemployment erodes the quality of the democracy. Moreover, the study shows that development has a strong, positive and statistically significant impact on the quality of democracy. Findings suggest a need for securing development to ensure that the quality of democracy is not going to be compromised. Furthermore, they suggest that democratic processes and practices need to be institutionalized to make it less dependent on development.

**Keywords:** Democracy; Development; Sub-Saharan Africa; System GMM
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## 1. Introduction

One of the most important changes witnessed by the 20th century was represented by the diffusion, in three distinct waves (see Huntington, 1991), of democracy among what had once been either colonial powers or former colonies that had managed to become independent. As former colonies became independent, it became quite evident that they lagged behind their former colonial masters. Development was seen as necessary condition to reduce and possibly eliminate poverty, to promote social justice and to create more equitable societies increasing attention was paid to development.

Some scholars were concerned with how development could be operationalized and the classic answer in this respect was provided by Lipset (1959) who argued that development should be measured on the basis of a country's wealth, level of urbanization, level of industrialization and the level of literacy. Other scholars were concerned instead with the consequences of development, that is with how development can modernize traditional societies, disrupt the fabric of such societies, may alter the values and the culture of individuals living in such transitional societies. While a third group of scholars was concerned with the determinants of development. Scholars identified several factors as the most important determinants of economic success.

Some scholars underlined that economic development can be promoted by technological innovation, geographic location, geopolitical conditions, institutions and, last but not least by democracy (see e.g., Kinyondo and Byaro, 2020; Pelizzo *et al.*, 2018). Democracy was believed to beneficial for economic development for two basic, and possibly complementary reasons. The first reason was that democracy was believed to be able to secure property rights, which, in turn, were expected to foster economic growth. The second argument was that an autonomous (non-democratic) state is always "ready to prey on the society and only democratic institutions can constraint it to act in general interest. From this view, dictatorships of any stripe are a source of inefficiency" (Przeworski and Limongi, 1993:57). In other words, it was argued "that authoritarian rulers have no interest in maximizing total output" (Przeworski and Limongi, 1993: 51) while democratic leaders do, especially if voters, as postulated by theories of economic voting, reward and/or punish the government on the basis of its economic performance (Kinyondo and Pelizzo, 2019).

While scholars were investigating how to promote the socioeconomic development of these new sovereign entities, several of the newly independent countries were experimenting with democracies. In the wake of WWII, several countries underwent a democratization. West Germany, Italy and Japan were democratized by allied forces by which they had been defeated in the war. Austria also democratized in the wake of WWII without experiencing however that process of denazification that occurred in Italy and, to a much larger extent, in Germany. Democratization did not simply occur in Europe or in the former fascist countries, but it was a global phenomenon. Democratic transitions occurred in Africa (Nigeria), they occurred in Asia (India, the Philippines, South Korea), and they occurred in Latin America (Brazil, Costa Rica, Ecuador, Peru). In several cases, however, the democratic experiments were not successful. Democracy collapsed in several Latin American settings (Argentina, Brazil, Bolivia, Chile, Ecuador and Uruguay) where the failure of democracy could have been attributed to the inherent problems of the presidential governments; democracy never managed to consolidate in Nigeria where it failed regardless of whether the country had a parliamentary or a presidential form of government; and democracy collapsed in both Asia (the Philippines and Indonesia) and Southern Europe (Greece). In the light of this series of democratic breakdowns, scholars started paying increasing attention to the conditions that make democracy consolidate and survive.

The consolidation of democracy has alternatively been seen as a function of political culture (Lipset, 1959), of the way in which democracy was achieved (Dahl, 1971), of the form of government (Linz, 1994), of the party system format (Sartori, 1976) and, last but not least, of socio-economic development.

In this respect, a very large body or research, sparked by the publication of Lipset (1959), has argued that the single most important determinant of democratic consolidation is represented by a country's level of development. Development was believed to create the conditions for the survival of democracy for three basic reasons. First, development contributed to the survival of democracy because in developed societies citizens are more educated and have pro-democratic values. Second, development stabilized democracies because in developed societies there are more resources that can be allocated among competing social groups and the re-distribution of resources plays a key role in neutralizing conflicts. Finally, development contributed to the survival of democracy because economic success provides the democratic regime with performance-based legitimacy that is so important to make democracy survive.

The purpose of the present article is to explore the impact of development on Africa's democracies. We do so because we believe that in many ways Africa represents the proper setting to perform such an analysis. Africa is ethnically diverse, has a diverse history of colonial rule, has often struggled to make progress along the developmental path and, in the course of the Third Wave of Democratization, it experienced several democratic transitions. These factors make Africa the proper setting to explore the relationship between democracy and development.

The rest of this article is organized in the following way. In the first section we will review the literature on the relationship between democracy and development. In the second section, we will review the evidence that has been presented by the literature on how democracy and development affect each other. In third section, we will explore, using an original dataset, how development has affected democracy in the African continent. In the fourth and final section, as is customary, we will draw some conclusions.

## 2. Democracy and development in the literature

Seymour Martin Lipset, in one article that eventually became one of the most successful and influential studies in the history of comparative politics, observed that the number of developed countries that were also democratic greatly outnumbered the number of countries that were developed and undemocratic. Lipset explained this finding by saying that socioeconomic development is a necessary social requisite for the consolidation of democracy because "the more well-to-do a nation, the greater the chances that it will sustain democracy" (1959:75). However, as several readers of Lipset work tend to forget, socioeconomic development was regarded as one of the three social requisites for consolidating democracy along with the system effectiveness and the system legitimacy (1959:86). According to Lipset, the single most important determinant of the stability of democratic regimes was represented by the system legitimacy, that is the "capacity of a political system to engender and maintain the belief that existing political institutions are the most appropriate or proper for the society" (1959:86). In contrast to what Huntington (1991) would write later on, Lipset made it clear that legitimacy is not an instrumental dimension, it is not performance based, but is instead a cultural dimension generated by a country cleavage structure, that is by "the ways in which key issues which have historically divided the society have been resolved" (Lipset, 1959:86). For Lipset the legitimacy was the single most important determinant of the stability of a political system, so much so that he went on to argue that if a political system has legitimacy, it is able to survive crisis of effectiveness and performance.

According to Lipset there are several reasons why development is important for the stability, the consolidation and the survival of democracy. Development creates the conditions for the pluralisation of society which, in its turn, creates the condition for "the activation of more political actors" (O'Donnell, 1973: 71) as "political pluralization is the political expression of social differentiation" (O'Donnell, 1973:72). Development contributes to the consolidation and/or the survival of democratic regimes in a second respect. As a society develops, the middle class expands and middle classes generally hold pro-democratic attitudes (Lipset, 1960:51). Development promotes democratic consolidation by making society more literate, more cultured, more exposed to democratic ideals, ideas and values. In this respect Lipset (1960:46 and 50) noted that there is an inverse relationship between the electoral strength of extreme political groups and national income. In other words, voters and citizens of developed societies are less likely to support political groups whose aim is to overthrow the system from which the citizens benefit. And there is one more argument, though it was not developed by Lipset, for which economic development can create the conditions for the consolidation of democracy. As societies become more developed, they have greater resources that they can redistribute among various to provide them with material incentives to coexist peacefully.

In spite of the fact that Lipset was concerned with the socioeconomic conditions that make democracy survive, his argument presented several similarities with modernization theory. According to modernization theory, higher levels of development do create a larger middle class, pro-democratic values and attitudes, a more educated population which, because of its education and attitudes, has a demand for democracy and eventually creates the conditions for a transition to democracy or democratization.

Interestingly, Lipset is credited for developing both arguments. According to Przeworski and Limongi (1997:156) Lipset argued that democracies are "more likely to emerge as countries develop economically" as well as for arguing that democracies "may be established independently of economic development but may be more likely to survive in developed countries" (Przeworski and Limongi, 1997: 156-157). Hence, in the light of one observation, one does not know whether there reason why democratic countries are generally more developed than non-democratic ones is because only developed societies become democratic, because democracies survive only in rich countries or both. In this respect, Przeworski and Limongi (1997:156) noted that in spite of the fact that "Lipset's observation that democracy is related to economic development, first advanced in 1959, has generated the largest body of research on any topic in comparative politics, neither the theory nor the facts are clear".

But most of Lipset's critics have chosen a different line of criticism. In fact, instead of asking whether development is a determinant of democratic transitions, consolidations or both, they lamented that in Lipset's work it was not clear what was the arrow of causality. In other words, it was not clear whether democracy was a cause or a consequence of development. In this respect Macridis (1968:86) noted that "at the end of this excellent study (*Political Man*), the reader is not sure whether open democracies are affluent because they are open and democratic or whether it is the other way round". Much in the same vein, Rustow (1968: 48) observed that "correlations between contemporary social, economic and political indicators for series of countries give no clue whatsoever as to the direction, if any, of causality. If authors such as

Lipset or Cutright find democracy highly correlated with education, affluence and urbanization, we still do not know (1) whether college graduates, rich people and townsmen make better democrats or (2) whether democracy is a system of government that encourages schooling, wealth and urban residence or (3) whether both democracy and its alleged correlates result from further unexplored causes". More recently, Weiner (1987:861) critically remarked that "the relationship between rates of growth (or rates of social mobilization), class structure, and the development and the persistence of democratic institutions in low-income countries has had several variant contradictory hypotheses".

An additional criticism to Lipset's work, but in more general terms to both Marxist and liberal historiography, was developed by Rueschenmeyer, Stephens and Stephens (1992). These authors contend that while it is true that socioeconomic development created the conditions for the expansion and the political empowerment of the middle class or bourgeoisie, it neglects entirely the role of the working class in the process of democratic consolidation. Worse, this approach neglects entirely the fact that while the middle classes were pro-democratic in some instances, that is whenever they were trying to downsize the political power of monarchs and aristocrats, they were also anti-democratic forces in all those instances in which they felt that their interests were threatened by democracy.

Contra Lipset (1959), Rueschenmeyer, Stephens and Stephens (1992:57) suggest that democracy is not the product of the expansion and the empowerment of the middle classes, but of the working class and of the other lower, under-privileged classes because "those who have only to gain from democracy will be its most reliable promoters and defenders", while the members of the middle and upper classes are those who will be "most tempted to roll it back when the occasion presents itself" (1992:57). After positing the centrality of the role of the (working) class in securing the successful transition and consolidation of democracy, Rueschenmeyer, Stephens and Stephens (1992) went on to argue that socio-economic development created the conditions for the political activation of the working class and of the other under-privileged classes. The advance by democracy was made possible by "the size and the density of organization of the working class" and this, in its turn, had been expanded by the transformation of the economic system from one that was mostly agricultural to one that was mostly industrial. This transformation not only expanded the number of urban workers but it also created the conditions for the emergence of workers organizations and collective action.

Regardless of whether development creates the condition for the establishment and the consolidation of democracy because it empowers the middle classes (Lipset) or the lower classes (Rueschenmeyer, Stephens and Stephens), both analytical frameworks agree, though for different reasons, on the relationship between democracy and development—which is all the Lipset Hypothesis ultimately posits. Having however established at the theoretical level that democracy and development are related, it is still unclear whether development is responsible for democratic transitions, democratic consolidations or both. The empirical evidence presented in the rest of this paper will help answering these questions.

### 2.1 Some Evidence from the Literature

Lipset found that democracies were more developed than non-democracies and that developed countries were disproportionately more likely to be found among democracies than among non-democratic regimes. And Lipset explained this finding by saying that democracy is more likely to survive in countries that are economically developed. As we noted in the previous section, modernization theory expanded Lipset' s argument to hypothesize that economic development is a major determinant of whether countries experience a transition from non-democratic rule to democratic rule.

Przeworski *et al*. (2000), in what remains the most comprehensive effort to explore the development-democracy nexus, went on to perform several analyses, four sets of which are relevant for our purposes. First, Przeworski *et al* (2000) tested in fact whether the probability that a country is democratic is related to its level of development using aggregate data. Second, they tested whether democracy emerges as a function of development. They did so by testing whether the probability that a country experiences a transition from non-democratic rule to democratic rule increases as a function of its income level-this analysis represented a preliminary test for modernization theory. Third, these authors performed an additional test to assess the validity of modernization theory by exploring whether a country that had developed under non-democratic rule would undergo a transition to democracy once it reached a certain level of development. Finally, since some of Lipset's critics had complained that in Lipset's work it was not clear whether democracy was a cause or a consequence of development and since some scholars e.g., Huntington (1968) had noted that democracy is detrimental for development, Przeworski *et al* (2000) tested whether the fact that a regime is democratic or not affects the country's rate of economic growth.

Przeworski *et al* (2000) found, when using aggregate data, that the level of economic development correctly predicts more than 77 percent of the 4126 cases only by looking at income per capita. They also found that none of the other factors that were used in their probit models was as important as development and that by adding additional variables to the original model would at most increase its explanatory power by 4 percent. In other words, the analysis of aggregate data presented a picture that was very similar to what Lipset (1959) had originally found, namely that there is a strong relationship between democracy and development. Does this mean that development triggers democratic transitions? Does it mean that development create the conditions for democratic consolidation? Or does it mean instead that democracy promotes development?

In order to test whether development is a major determinant of democratic transitions, Przeworski *et al* (2000:92-95) performed two sets of analysis. In the first set of analysis, they tested whether the probability of a country undergoing a democratic transition increased as its level of development increased. By performing this analysis, they found that the probability to have a democratic transition in country where the income per capita is less than 1000 $ is negligible, that it is higher for countries with an income per capita in the 1000-3000 $ range, that it is highest for countries where the income per capita is in the 5000-7000 $ dollar range and that above 7000$ the probability of experiencing a democratic transition is less than half of what it is in the 5000-7000 $ range. This means that the relationship between development and the probability of experiencing a transition is not linear and that the pattern of instability as a function of development is "bell-shaped" as Huntington (1968) had hypothesized.

Przeworski *et al* (2000) performed a second test to see whether economic development is a major determinant of democratic transitions. In this second test, Przeworski *et al* (2000) they assumed that a country is developed when it reaches an income per capita of 4115 $ and they tested whether non-democracies that reach that such level of development undergo a democratization. They found, however, that that is not the case and that economic development does little to destabilize dictatorships. Singapore and Malaysia, along with other developed societies, reached a level of development at which democracies "would be expected to be the more likely regime" (2000:94) and yet they remained solidly non-democratic. In the light of these two tests, Przeworksi *et al* (2000:97) concluded that there is very little evidence supporting the claim that socioeconomic development is a major determinant of democratization.

This said, Przeworski *et al* (2000) were quick to note that while development has little impact on the probability that a country becomes democratic, it has a major impact on a whether a country is able to remain democratic. In fact, they noted that while a democratic regime has 12% probability of collapsing in a given year in countries where the income per capita is less than 1000$, the probability is just 5.5% in countries with an income per capita in the 1000-2000 $ dollar range and that in countries with a per capita income of more than 5000 $ there it is virtually impossible for democracy to break down. This evidence sustains Lipset (1959) claim that the reason why democracies are more (likely to be) developed than non-democracies is that development is a major determinant of whether a democracy is able to survive or not.

Finally, Przeworski *et al* (2000) tested whether democracy is a major determinant of economic growth. This was an important test for two different reasons. It was an important test because, as we have noted earlier on, several of Lipset's critics had criticized Lipset for not clarifying whether democracy was a cause or a consequence of development. Second, this test was also important because several studies (Huntington, 1968) had argued that the promotion of socioeconomic development required strong government, strong states, strong political institution (what he called political development) rather than democracy and that development was more likely to be promoted by strong non-democratic governments than by feeble democratic ones. Hence, by testing whether democracy promotes growth Przeworski et alii (2000) could provide some empirical evidence to support or challenge the arguments advanced by Huntington (1968), Macridis (1968), Rustow (1968) and Weiner (1987).

In this respect, Przeworski *et al* (2000) found that economic growth is slightly higher under dictatorship than under democratic rule but that the finding is spurious in the sense that what makes a difference in terms of growth is not so much the regime type but rather "the conditions under which these regimes were observed" (2000:147, 153 and 178). In other words, according to Przeworski *et al* (2000) the fact that a political regime is democratic or not does not make much of a difference in terms of how fast a country's economy grows. This finding is important for two reasons. It is important because it shows that Huntington's claim that strong, authoritarian governments are better equipped than democratic ones to promote economic growth and development is not supported by empirical evidence and, therefore, there is not developmental justification for non-democratic rule. Development can occur under democracy just as well as it may occur under dictatorship. Second, and contra the modernization theorists, this finding illustrates that the reason why democracies are disproportionately more developed than non-democratic regime is not due to the fact that democracies experience higher growth rates than dictatorship but is due instead to the fact that economically developed democracies survive longer.

While these studies with large samples advanced the scholarly understanding of the relationship between democracy and development in a global perspective, much less is known about how development in Africa has impact the African democracies. This nexus is precisely what we plan to explore in the remainder of this article.

**3. Methodology**

This study uses data available from various international secondary data sources that include the World Development Indicators (WBI), the World Bank's Global State of Democracy Indices, the World Governance Indicators (WGI) and Inter-Parliamentary Union (IPU). The study makes use of econometric manipulations to analyse our data. Specifically, system Generalized Methods of Moments (GMM) has been used to analyse 36 sampled sub-Saharan Africa countries (see appendix) for the period from 2002 to 2019.

The countries were chosen on the basis of the availability of data. Variables such as political stability, voice and accountability, and rule of law were taken from the World Bank's World Governance Indicators (2021). These variables were chosen for two reasons. The first is that previous studies had detected a strong link between the governance indicators and democracy (Kinyondo, 2013; Kinyondo and Pelizzo, 2013; Coghill et al., 2012; Kinyondo, 2012). The second is that, as some studies recently recalled (Pelizzo, 2020), these variables provide some insight into the procedural quality of democracy. Unemployment rates, internet use, and real GDP per capita were taken from the World Bank Development Indicators Database (2021). Finally, the data on Direct Democracy were taken from the World Bank's Global State of Democracy Indices (2021). This measure captures "to what extent are direct popular votes utilized" and ranges from 0 to 1.

**Table 1: Variables and units of measurements.**

| Variables | Unit |
|---|---|
| GDP per capita (income) | Constant 2015 US dollars |
| Direct Democracy | Scaled to range from 0 (lowest score) to 1 (highest score) |
| Internet use | % of population using internet (mobile cellur, broadband) |
| Unemplyoment rates | % of total labor force (ILO estimates) |
| Political stability | Scaled to -2.5 (weakest) to 2.5( strongest) |
| Voice and accountability | Scaled to -2.5 (weakest) to 2.5( strongest) |
| Rule of law | Scaled to -2.5 (weakest) to 2.5( strongest) |

**Source:** World Bank Development Indicators (2021); World Governance Indicators (2021) and World Bank's Global State of Democracy Indices (2021)

We applied an unbalanced panel for determinants of democracy in sub-Saharan African countries. The data consists of a panel of 36 countries for 18 years, where N=36, is much larger than T= 18, and we adopt the system Generalized Method of Moments (GMM) estimator that uses a number of instruments to control endogeneity between democracy, internet use and economic growth (See Byaro, 2021a; Byaro, 2021b; Byaro, 2021c; Kinyondo *et al*., 2021; and Byaro *et al*., 2021). We used the following regression model specification in the system GMM estimator as follows: -

$$Democracy_{\,i,t} = \emptyset + \alpha Democracy_{i,t-1} + \beta GDP_{i,t} + \gamma X'_{t,i-1} + \varepsilon_{it} \qquad (1)$$

Where, GDP= GDP per capita, for $i$= 1, 2......N (Countries) and $t = 1$, 2......T (time).

$\mathcal{E}_{i,t}$ = idiosyncratic error (error term for country $i$ and time $t$ ) given by

$\mathcal{E}_{i,t} = u_{i,} + \gamma_t$

$\gamma_t$ = time specific fixed effects,

$\mu_i$= is the country specific fixed effects constant in time

$t-1$= lagged time ; while $\emptyset$, $\propto$, $\beta$, $\gamma$ are coefficients of estimated parameters and $\mathbf{X'}$ are vectors of explanatory variables including internet use, voice and accountability, political stability, rule of law and unemployment rates.

Endogeneity bias and other unobserved heterogeneity bias result from the country specific effects $\mu_i$ correlating with explanatory variables in Equation (1). Therefore, endogeneity and other omitted variable bias can be eliminated by differencing ($\Delta$) as follows:-

$$\Delta Democracy_{i,t} = \Delta\emptyset + \alpha_1 Democracy_{i,t-1} + \beta_1 \Delta GDP_{i,t} + \gamma \Delta X'_{t,i-1} + \Delta\varepsilon_{it} \qquad (2)$$

## 4. Findings

Through Generalized Methods of Momemts (GMM – first differences), Arellano and Bover (1995) applied first differences to reduce unobserved heterogeneity and related omitted variable bias. Finally, Blundell and Bond (1998) combined the instruments in differences (Eqs.2) and the instruments in levels (Eqs.1) to form system GMM estimators in which the variables in differences are instrumented through their values in levels and the variables in levels are instrumented through their values in differences using the number of lag. All variables, with the exception of government variables, are expressed in logarithmic forms. Table 2 shows the summary of descriptive statistics of variables used in our study

**Table 2: Descriptive statistics**

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| Real GDP per capita | 648 | 1716.5 | 2419.5 | 258.6 | 16438.64 |
| Democracy | 648 | .10 | .09 | 0 | .43 |
| Internet | 604 | 9.12 | 12.25 | .03 | 68.2 |
| Unemployment | 649 | 6.91 | 6.70 | .32 | 33.58 |
| Voice and accountability | 649 | -.62 | .64 | -2.0 | .73 |
| Political stability | 649 | -.66 | .84 | -2.69 | 1.11 |
| Rule of law | 649 | -.74 | .54 | -1.85 | .73 |

**Source:** World Governance Indicators and World Bank Indicators (2021).

The average GDP per capita for 36 sub-Saharan African countries (in constant US dollars in 2015) is 1716.5 US dollars. Gabon (8839.76 US dollars), Equatorial Guinea (8465.98 US dollars), South Africa (6748.23 US dollars), Botswana (7306.5 US dollars), Angola (2890.89 US dollars), Ghana (1848.25 US dollars), Senegal (1500.24 US dollars), Ivory Coast (1714 US dollars), as well as Zambia (1558.32 US dollars) have the highest GDP per capita (constant US dollars). South Africa (0.70), Ghana (0.58), Botswana (0.49), and Senegal (0.24) are the countries with the highest voice and accountability. These higher values are detected in countries with higher GDP per capita mentioned – which suggests a link between higher GDP per capita and voice and accountability in Sub-Saharan Africa, which is not just one of the governance indicators but one of the most important conditions that make countries democratic - for countries that do not provide citizens with an opportunity to voice their preferences and demands and do ensure that goevrnments are accountable to their citizens, cannot properly be regarded as democratic. Unsurprisingly countries with relative lower GDP per capita such as Equatorial Guinea (-1.83), Burundi (-1.54), Sudan (-1.43), Chad (-1.42), Congo Democratic (-1.23), Zimbabwe (-1.12), Rwanda (-1.10), and Ethiopia (-1.02) are among the countries with the lowest voice and accountability. This link between one of the governance indicators and development, measured on the basis of GDP per capita, is consistent with a scholarship

tradition that, over the years, has consistently reported that good governance matters to secure/promote socio-economic development (Kaufmann *et al*., 1999).
Finally we need to report that the overall mean for voice and accountability in Sub-Saharan Africa is negative, which means that in many countries of this poverty stricken subcontinent voice and accountability are lacking.

With regard to political stability, the analysis of the data taken from the Wordwide Governance Indicators reveals that the overall mean (for political stability) is negative. This findings indicates that many sub-Saharan African countries are unstable and/or struggle to ensure the political stability of their respective regimes. Except for Botswana (1.09), Gambia (0.25), and Ghana (0.13), the remaining selected countries have negative and low political stability values.

With regard to the rule of law only Botswana (0.44) and Rwanda (0.11) have a positive score in the rule of law dimension, while the remaining countries, included in our sample, have negative score – which suggests that in those countries the governance systems struggles, and possibly fails, to ensure that the rule of law is respected and properly enforced. Once again countries with relatively higher GDP per capita fare better in terms of both political stability and rule of law. This evidence is consistent with the claims advanced by Kaufmann et al. (1999) who posited a positive association between higher levels of governance and higher levels of development. But, if one were to take, political stability and rule of law as two of the procedural dimensions of democracy, then one could go on to suggest that evidence presented above is consistent with Lipset's claim about the association between democracy and development.

The average unemployment rate in sub-Saharan Africa rose from 5.78 percent in 2015 rising to 6.27 percent in 2019. South Africa (28.7 percent), Lesotho (24.6 percent), Botswana (17.7 percent), Gabon (20.5 percent) and Sudan (17.7 percent) had the highest unemployment rates. Niger (0.7%), Rwanda (1.4%), Madagascar (1.9%), and Tanzania (2.2%) had the lowest unemployment rates.[1]

With regard to the internet use South Africa (68%) has the highest rate recorded in sub-Saharan Africa, followed by Botswana (61%), Gabon (61%), Gambia (51%), and Ghana (53%). Central Africa Republic (4%) and Burundi (5%) have the lowest internet penetration rates. Once again countries with bigger GDP per capita are doing much better in internet use than their poorer counterparts in Sub-Saharan Africa.

The empirical findings for determinants of democracy in sub-Saharan Africa are shown in Table 3. We estimate models with some governance indicators (models 1, 2, and 3) and without governance indicators (model 4). Our panel was unbalanced due to a lack of data from other countries. The data ranged from 2002 to 2019 for a sample of 36 sub-Saharan African countries.

The diagnostic test demonstrates that the Hansen Test is valid for the instrument used, and the second order serial correlation test, AR (2), indicates that there is no serial autocorrelation. Following Roodman (2009), Kinyondo and Byaro (2020), Kinyondo et al. (2021), Byaro et al. (2021), we used the collapse option to limit the number of instruments to be less than the number of countries. As expected, our modeling approach used lower number of instruments than the 36 sample countries.

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[1] Unemployment refers to the share of the labour force that is without work but available for and seeking employment. Source: World Bank Development Indicators. See: Unemployment, total (% of total labour force) (modelled ILO estimate) | Data (worldbank.org)

**Table 3: Regression estimates for determinants of democracy (System GMM)**

| Variables | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| In _democracy (-1) | 0.79***(.090) | 0.74*** (.044) | 0.76*** (.090) | 0.86*** (.12) |
| ln_real GDP | 0.35** (.17) | 0.42** (.210) | 0.27 (.272) | 0.37* (.218) |
| ln_unemployment | - 0.24* (.136) | - 0.47** (.207) | - 0.40** (.185) | - 0.24* (.13) |
| ln_internet | - 0.06 (.047) | - 0. 06 (.044) | - 0.03 (.043) | - 0.05 (.217) |
| Rule of law | 0.08 (0.19) | - | - | - |
| Voice and Accountability | - | 0.14 (0.152) | | - |
| Political stability | - | - | 0.23** (.106) | - |
| Constant | -2.58 ** (1.02) | -2.76** (1.20) | -1.76 (1.63) | -2.54*(1.49) |
| Number of observation (N) | 562 | 562 | 562 | 562 |
| Number of instruments used | 21 | 32 | 32 | 13 |
| Number of Groups/countries | 36 | 36 | 36 | 36 |
| Hansen Test $\rho$ value | 0.85 | 0.63 | 0.71 | 0.42 |
| AR (2) $\rho$ value | 0.48 | 0.63 | 0.51 | 0.48 |

**Source:** Authors estimation (2023); **Note:** *** $\rho$< 0.01, ** $\rho$< 0.05,* $\rho$< 0.10 Robust standard errors in parenthesis ( ); dependent variable = Democracy, ln_ presents = natural logarithm

Table 3 demonstrates that development (real GDP per capita) and political stability have a statistically significant positive impact on democracy. The rule of law, as well as voice and accountability, have a positive but insignificant impact on democracy in sub-Saharan Africa. Unemployment rate has a negative and statistically significant impact on democracy. This means that each unit increase in unemployment rates harms democracy in sub-Saharan Africa. Internet use has insignificant negative impact on democracy promotion in the region. The governance indicators supporting democracy was treated separately in each model to avoid multicollinearity.

## 5. Conclusion

If one defines democracy as a political system in which there are free and fair elections held at regular intervals, in which governments and elected officials are accountable to the voters, by whom they can be punished or rewarded in the ballot box, and in which the policy outcome reflects the preferences that the vote express in the elections, knowing the extent to which direct popular votes are utilized provides a valuable indication of the quality of democracy.

The World Data suggest that while in some countries in Sub-Saharan Africa, such as Tanzania, the quality of democracy has improved in recent years, the quality of democracy has, in the aggregate, deteriorated across the continent. What this fail to explain is why the quality of democracy has worsened in.

Since the literature has extensively explored the democracy-development nexus, suggesting in some instances that development may trigger in some cases a transition to democracy, but also suggesting that it is one of the most important determinants of democratic consolidation, we attempted to explore whether and to what extent the quality of democracy and development are related in Sub-Saharan Africa.

Results from our statistical analyses reveal that the single best predictor of the quality of democracy is represented by the quality of democracy in the previous year, that political stability is instrumental in securing the quality of democracy, while unemployment erodes the quality of the democracy. More importantly, for the purposes of the present article, our analyses reveal that development has a strong, positive, statistically significant and robust impact on the quality of democracy.

There are three reasons this finding is valuable. The first reason is that it complements a rich body of research that has explored the democracy-development nexus. While previous studies (Przeworski *et al*., 2000) showed that development makes democracy endure, our findings reveal that in Sub-Saharan Africa development makes democracy work better. The second reason why it is important is that it raises the question, that social scientists may wish to explore in greater detail, as to what is actually the relationship between the quality/proper functioning of democracy and its ability to survive. The third reason why it is important is that, by showing the extent to which the quality of democracy in the continent depends on the development along the developmental path, it raises some legitimate concerns as to what may happen to the African democracies if the developmental progress recorded in the previous years were compromised. African democracies perform well for as long as they secure socio-economic development and they deteriorate to do so.

Our findings have some obvious implications for democracy in the region. Democratic leaders need to secure development to ensure that the quality of democracy is not going to be compromised. Furthermore, African democratic leaders in the continent may need to find ways, for example by ensuring a better institutionalization of democratic processes and practices, to make democracy less dependent on development. In that way democracy will thrive in periods of economic expansion and will be able to survive unharmed the periods of economic hardship such as it was a case at the peak of the Covid pandemic (see Kinyondo and Pelizzo, 2021).

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**Appendices: List of countries included in the analysis**

1. Angola 2. Botswana 3. Benin 4. Burkina Faso 5. Burundi 6. Cameroon 7. Congo Dem. Rep,

8. Equatorial Guinea, 9. Ethiopia, 10. Gabon, 11. Gambia, 12. Ghana, 13. Guinea, 14. Kenya,

15. Lesotho, 16. Liberia, 17. Madagascar, 18. Malawi, 19. Mali, 20. Mozambique, 21. Namibia,

22. Niger, 23. Nigeria, 24. Rwanda, 25. Senegal, 26. Sierra Leon, 27. South Africa, 28. Sudan,

29. Tanzania, 30. Uganda, 31. Zambia, 32. Zimbabwe, 33. Togo, 34. Chad, 35. Cote d'Ivoire,

36. Mauritania