

INVESTIGATING EASE OF DOING BUSINESS IMPROVEMENTS IN SUB-SAHARA AFRICA

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Abstract

The reports produced by the World Bank (WB) on doing business do not indicate whether economies evaluated are making significant improvements on business environment improvement. The aim of this study is measuring improvements made by Sub-Sahara Africa (SSA) countries on ease of doing business indicators. Starting a business score (SBS), registering property score (RPS), getting credit score (GCS), enforcing contracts score (ECS), and resolving insolvency score (RIS) were evaluated. This study used secondary quantitative data produced and published by the WB for 2005 and 2020 periods. The sample size was made by 37 countries. Paired sample t-test was computed using R programming environment. The results of the paired sample t-test indicated that the mean differences are statistically different from zero for four indicators except ECS indicator. This means SSA has improved those indicators for 2020 compared to 2005. However, no statistically significant improvements were made on ECS indicator. The study's findings constitute value to policymakers in SSA as it provides a clear vision of the improvements made on the road of ease of doing business perfection. This study shows where SSA policymakers need to improve like ECS. Policymakers should identify why this indicator did not improve and take required strategy. This study tested statistically the improvements made by SSA regarding EDB. It is one of the very first studies that evaluate statistically the progress of SSA on the road of improving doing business environment.

Keywords: Starting a business, registering property, getting credit score, enforcing contracts, and resolving insolvency score.

INTRODUCTION

The performance of companies can be hampered by many issues, as well as lack of access to finance, increasing corruption, political uncertainty, legal environment and poor infrastructure. African countries are facing macroeconomic problem that have negative impact of business environment. Adekunle, Tella and Adelowokan (2021) identified macroeconomics issues that African nations are facing including hyperinflation, money devaluation, irregular capital flows, growing debt profile, and incapability to create a common market and currency. These problems are not alone in Africa. The African Development Bank (2013) reported that higher levels of income inequality, primary education, inflation, and higher level of population tend to increase poverty in Africa, and therefore restrict poverty reduction and inclusive growth in the continent. Stephan and David (2007) concluded that the high population growth limits per capita growth prospects in Uganda. The situation contributed significantly to decrease accomplishment in poverty decrease and was linked with households being persistently poor and moving into poverty. Scand and Nyamwange (1995) explained how rapid population growth in Kenya affects economic growth. They showed that rapid population growth and high fertility negatively impacted economic development. The consequences of high speed in growth and fertility lead to a decrease in gross national product, per capita food consumption, and land quality; a high dependency ratio; urban crowding; and inadequate health systems. As stated by Senadjk, Ogbeibu, Yip, Yong and Senadjki (2021) corruption distorts the rule of law within and across African countries, has a negative effect on country institutional structures, dampens citizen confidence in national economic growth, and is encroaching on the educational experience of African universities. As a result, it is identified as one of the most significant barriers to progress that stifles rapid social and economic growth. This may be an obstacle to implementing the recommendations of the W.B. on improving business environment. The long procedures and time required to accomplish any administrative formality is one the source of increasing corruption.

Doing business in Sub-Sahara Africa (SSA) remains difficult as reported by the WB (2020) in "Doing Business Report 2020". The region was estimated to be one of the weak-performing on the EDB with an average score of 51.8. Compared to Doing Business 2019, SSA economies increased their average EDB score by just one percentage point in Doing Business 2020. The same reports dressed a list of the main weaknesses that were found in SSA economies. Regarding property registration processes, SSA was the most inefficient in the world. Concerning ports, the most efficient regions among the Organization for Economic Co-operation and Development (OECD) are in high-income economies while ports were least efficient in SSA. 20 economies from SSA region were ranked in the bottom of

doing business report. SSA was among the most cumbersome tax compliance processes. It was the region with the least advanced credit information systems. It had the lowest share of economies (17%) using online platforms for filing tax returns and payment modules. Finally, SSA was characterized by the highest redundancy cost. Only two countries from Sub-Saharan African economy were ranked among 50 top performing economies: Mauritius (13) and Rwanda (38).

The role played by business regulation in supporting entrepreneurial activity, firm creation, company performance, economic growth, job creation, etc. was recognized by previous studies. Roman and Rusu (2021) after analyzing European countries established that regulations on starting a business, registering property, and enforcing contracts were the most significant predictors of setting up new firms. The WB (2020) indicated that improving in firm entry regulation was correlated with higher productivity. Additionally, changes to start-up regulation affected the number and size of firms in the market. However, regarding to cost of starting a business, the WB remarked that an entrepreneur from a low-income economy has to spend 50 percent of income per capita to start a business whereas; an entrepreneur from a high-income economy was spending only 4.2%. About the time of starting a business, the WB indicated that nearly six times as long on average is required to start a business in the economies categorized in the bottom 50 as in the top 20. As indicated 20 economies of SSA are among the 50 bottom ranks. Canare (2018) opined starting business component had positive effect on business creation in 120 countries analyzed. Davari and Farokhmanesh (2017) concluded that legislation had a positive encouragement on opportunity to startup. Chambers and Munemo (2019) established a negative correlation between procedures and new business creation. They indicated that when the number of steps required to create a new business increased by unit, entrepreneurial activity decreased between three and seven percent.

No country can aspire ensuring its sustainable development when business environment is not favorable. The development of private sector goes hand in hand with the development of a country. When business environment is incentive, new company will be registered, new jobs will be created, and companies will be profitable. Profitable companies will pay tax income and the governments will have sufficient resources for their projects. On one hand Asongu and Odhiambo (2018) established connection between the EDB and economic development by means of wealth creation and sharing, opportunities of employment, balanced regional and economic expansion, Gross Domestic Product (GDP) and GDP per capita, improvement of living conditions and exports. On the other hand, these authors discussed the challenges to doing business in Africa through: cost of starting a business and doing business, shortage of energy and electricity, lack of access to finance, and high taxes and low cross-border trade.

The reports produced by the WB since 2004 do not evaluate whether SSA has made statistically significant improvement to ameliorate business environment. Not providing such information constitutes a limitation of knowledge on what SSA is doing to improve its business environment. It becomes difficult for SSA to attract foreign investors and stimulate entrepreneurial activities. Therefore, this study fills this gap by evaluating statistically the extent to which SSA improved on starting a business, registering property, getting credit, enforcing contracts, and resolving insolvency indicators.

The main objective of this study is examining the progress made by SSA on selected indicators. Specifically, the study evaluates statistically progress made on starting a business, registering property, getting credit, enforcing contracts, and resolving insolvency. The main research question of this study is: To what extent SSA has enhanced business environment since 2005 to 2020? The sub questions of this study are: To what degree starting a business was improved in SSA? To what extent registering property was improved in SSA?, To what extent getting credit was changed in low middle-income economies? To what degree enforcing contracts has improved in SSA? To what extent resolving insolvency was improved in SSA?

This paper is organized in four sections. The first section presents the introduction and the purpose of the study. The second section is related to the analysis of the literature review. The third section presents the methods, and the fourth section presents the result and discussion. The following section analyses the literature review.

LITERATURE REVIEW

The advantage of having friendly business environment has attracted policy makers and scholars. Ease of doing business became more interesting that the WB produces, since 2004, a report on how 190 economies are improving their business environment. These economies are evaluated by the WB based on ten indicators estimated to have impact on business areas. The indicators considered, which constitute composite index of ease of doing business, are mainly related to starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, resolving insolvency, employing workers, and contracting with the government (WB, 2020). Employing workers and contracting with the government indicators are excluded from measures used in ranking economies on the ease of doing business.

Theories have been developed to explain how heavy business regulation affect business environment. For example, transaction cost theory (TCT) recognizes that conducting transactions is a costly effort (e.g., discussing contracts, monitoring performance and solving disputes) and diverse modes of organizing businesses involve different costs

(Rindfleisch, 2019). Therefore, a comparative analysis of the relative business costs of these alternative modes communicates how a particular transaction should be lead. Based on this theory, a country with high transaction costs will not be able to attract investors. The TCT has been used in examining firms' limitations, vertical integration choices, the rationale for leading an acquisition, the networks and other mixture governance forms (Martins, Serra, Leite, Ferreira, and Li, 2010). Another theory that needs to be mentioned is internalization theory. Internalization theory examines how the corporation's owners, managers, or trustees establishments make decisions. The hypothesis presupposes that these decisions are rational. In this case, rationality means that the decision-maker can recognize a set of possibilities, has a goal by which these options can be ranked, and can identify and select the highest-ranked choice (Buckley and Casson, 2009). According to these authors, rational agents will internalise markets when the anticipated benefits surpass the estimated costs. However, the way politicians make decisions has been criticized by researchers. Djankov, La Porta, Lopez-De-Silanes, and Shleifer (2002) based on their tollbooth theory indicated that regulation is pursued for the interest of politicians and bureaucrats. Accordingly, politicians use regulation both to generate rents and to extract them through campaign contributions, votes, and bribes. The main reason why many of these permits and regulations exist is perhaps to give of administrators the power to deny them and to gather bribes in return for providing the permits. The last theory is the theory of regulatory capture. This theory support the idea that regulations are routinely and predictably 'captured' and manipulated to work for the interests of those who are supposed to be subject to them, or the bureaucrats and legislators who write or control them (Etzioni,2009).

Inspired by these indicators, many studies were conducted to evaluate how these indicators affect business and development growth. Even though the WB uses the indicators to evaluate and rank economies, they are not enough to ensure incentive business environment. As indicated by Koks, Pant, Thacker, and Hall (2019) energy and transportation networks, water, controlling pollution, and digital media for example, are critical infrastructure systems that constitute backbone for modern economies.

The impact of ease of doing business has been analyzed with regards to business creation, firm productivity, economic growth, and foreign direct investment attraction.Canare (2018) indicated that ease of doing business, particularly starting business component has positive effect on business creation in 120 countries scrutinized. Roman and Rusu (2021) concluded that regulations on starting a business, registering property, and enforcing contracts were the most significant predictors of setting up new firms in European countries investigated. The WB (2020) indicated that refining firm entry regulation was associated with higher productivity. Additionally, changes to start-up regulation affected the number and size of firms in the market.Haidar (2012) explored the relationship between business controlling reforms and economic growing in 172 countries and concluded that each business supervisory reform was related with a 0.15% increase in evolution rate of gross domestic product.Wellington and Kenneth (2018) examined the impact of ease of doing business and corruption on economic growth in Africa free trade zone member states using a panel data analysis for the period 2010-2016. Their results revealed that corruption, trading across borders, getting credit, registration of property, dealing with construction permits, starting business, insolvency resolving, and investor protection had a significant impact on the economic growth of Africa free trade zone member states.

Roman and Rusu (2016) found that entrepreneurial activity was affected by unemployment rate, total tax rate, entrepreneurial intentions, perceived capabilities, cost of business start-up procedures and domestic credit to private sector in 18 European Union member states investigated. Jang, Lee and Hadley (2020) concluded government program aiming supporting the initiation of starting a venture, providing and increasing availability and accessibility to financial resources, and making expansion and growth easier were related to entrepreneurship.Dut (2015) local government's favour policies for private firms and labour force have positive impact on SMEs' performance. Włodarczyk et al. (2018) indicated one of the most influential factors of a company's survival and development on the market is its ability to obtain bank loans or other external sources of financing for business development.

The impact of ease of doing business on foreign direct investment (FDI) was analyzed in previous studies. For instance, Nangpiire, Rodrigues and Adam (2018) evaluated whether formal procedures of doing business were positively associated with FDI inflow in 44 Sub-Sahara African countries. As independent variables, they included starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, and resolving insolvency. FDI was used as dependent variable. Their results indicated that 56% of the mean variability of FDI is explained by the independent variables. Finally, they added that the ease of doing business indicators were among the determinant factors in attracting FDIs into Sub-Sahara African countries. Hossain, Hassan, Shafiq and Basit (2018), after analyzing data from 177 countries concluded that ease of doing business indicators especially 'Enforcing Contracts' had a positive significant impact on inward FDI. Nonetheless, 'Getting Credit' and 'Registering Property' had a negative significant impact on inward FDI. Though, 'Starting a Business' and 'Paying Taxes' had no significant impact on inward FDI. Finally, these authors indicated the ease of doing business allows inward FDI through better contract enforcements, getting credit and registering property.Ahlquist andPrakash (2009) indicated FDI was associated with lower contract enforcement costs, particularly when the host country is more indebted.Haliti, Merovci, Hetemiand Sherpa(2019) analyzed 16 European transition countries and found that starting a business,

registering property, getting electricity and resolving insolvency had a positive and significant impact in fascinating FDI, while dealing with construction permits, getting credit, paying taxes, protecting minority investors, indicated negative impact on foreign direct investment. Finally, the authors concluded that trading across border and enforcing contracts had any impact on attracting FDIs in European transition countries analyzed. The ease of doing business was found to have impact on economic.

This section provides a better understanding of the impact of ease of doing business on other factors such as business creation, firm productivity, economic growth, and foreign direct investment attraction, etc. The results of the studies concluded on the influence that ease of doing business has on these factors. Improving business environment can contribute to increasing SSA countries' development and poverty reduction through job creation and income distribution. It can also contribute to attracting foreign investors that are able to bring required technology and financial capital required for increasing exports and productivity. The following section presents the methods used in this research.

METHODS

To evaluate improvements made by SSA on ease of doing business in SSA on SBS, RPS, GCS, ECS, and RIS, data were collected on the World Bank web site (<https://www.doingbusiness.org/en/custom-query>). Data collected were related to starting a business score (SBS), registering property score (RPS), getting credit score (GCS), enforcing contracts score (ECS), and resolving insolvency score (RIS). 50 countries were classified in SSA. The choice of these indicators is based on their availability for 2005 period. Other indicators such as getting electricity, paying tax, dealing with construction permits, protecting minority investors, and trading across borders were not reported for 2005. Those countries are: Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Congo Democratic Republic, Congo Republic, Côte d'Ivoire, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, The Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Nigeria – Kano, Nigeria – Lagos, Rwanda, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Tanzania, Togo, Uganda, Zambia, Zimbabwe. After checking for missing data 13 countries were deleted in the data set. Those countries are Cabo Verde, Comoros, Equatorial Guinea, Eswatini, Gabon, The Gambia, Guinea-Bissau, Liberia, Nigeria, Nigeria – Kano, Seychelles, Somalia, and South Sudan. For those countries, data related to 2005 were not reported.

To choose between paired sample t-test and paired samples Wilcoxon test, the distribution of the difference for each pair of indicator was tested using Shapiro Wilk test. Paired sample t-test which is parametric test is used when the distribution of differences is approximately normal. When the distribution of differences is not normally distributed, paired samples Wilcoxon test is used. As indicated by Ghasemi and Zahediasl (2012) indicated that normality and other hypotheses should be taken seriously because it is difficult to draw accurate conclusions if they do not hold. Nevertheless, these authors added that the breach of the normality principle does not trigger major problems with large enough sample sizes (> 30 or 40); this means that we can use parametric procedures even though the data are not normally distributed. Kwak and Park (2019) indicated that when the number of samples is greater than 30, the sample mean distribution satisfies the normal distribution, according to the central limit theorem. As the sample size is greater than 30 (sample size is 37), paired sample t-test was applied. The null hypothesis to be tested is that the true mean difference is equal to zero.

The significance level considered is 0.05. If the p-value was fewer than 0.05, the null hypothesis was rejected. In this study, rejecting the null hypothesis indicates that there was a statistically significant improvement for the indicator considered, when comparing 2005 to 2020. In other words, it means that SSA has made statistically significant effort to improve the indicator. Conversely, if we fail to reject the null hypothesis (p-value greater than 0.05), that means SSA did not make statistically significant improvement on the indicator considered. The following unit presents and discusses the results.

RESULTS

This section presents first descriptive statistics. It also presents the results of the normality test of the differences. Finally, it presents the result of the paired sample t test. The Table 1 and Table 2 present central tendency and the dispersion of the data under investigation. The central tendency was measured by mean, median, minimum, and maximum value. Dispersion was estimated by standard deviation. Mean (or median), the standard deviation, the kurtosis, and the skewness are parameters of a distribution (Čisar, 2010). Mishra et al. (2019) indicated that skewness and kurtosis can be used to test normality. According to them skewness evaluates symmetry, or lack of symmetry of the normal distribution; while Kurtosis evaluates peakedness of a distribution. For normally distributed data skewness should be near zero; while kurtosis should be less than seven.

Table 1: Descriptive Statistics for SBS, RPS, and GCS

	SBS_2005	SBS_2020	RPS_2005	RPS_2020	GCS_2005	GCS_2020
Mean	43.676	81.397	43.692	54.219	30.605	48.784
Median	40.300	84.500	43.800	53.800	18.800	55.000
Standard deviation	18.784	11.155	15.931	12.558	18.793	26.125
Skewness	0.183	-0.969	0.191	0.818	1.094	0.111
Kurtosis	-1.038	0.503	0.048	1.990	-0.109	-0.852
Minimum	13.100	52.500	16.700	28.600	12.500	0.000
Maximum	79.200	95.100	81.900	93.700	75.000	95.000

Source: Extrapolated by the Author from the World Bank database.

Table 2 : Descriptive Statistics for ECS and RIS

	ECS_2005	ECS_2020	RIS_2005	RIS_2020
Mean	48.189	50.441	25.600	35.041
Median	46.800	50.600	29.700	37.000
Standard deviation	11.634	11.019	13.525	17.384
Skewness	-0.048	-0.203	-0.873	-0.601
Kurtosis	-1.065	-0.466	-0.239	0.663
Minimum	27.700	28.100	0.000	0.000
Maximum	67.300	72.200	45.900	73.800

Source: Extrapolated by the Author from the World Bank database.

The Table 3 presents the result of the Shapiro Wilk normality test of differences. Kwak and Park (2019) indicated that when the number of samples is greater than 30, the sample mean distribution satisfies the normal distribution, according to the central limit theorem. The test of normality allows choosing between parametric and nonparametric methods in data analysis.

Table 3: Testing normality of differences

	SBS	RPS	GCS	ECS	RIS
W	0.94798	0.88536	0.95092	0.95486	0.83252
P-value	0.08305	0.001184	0.1033	0.1384	0.00006312
Test to use	T test	Wilcoxon	T test	T test	Wilcoxon

Source: Author's calculation

The results of the normality test of difference show that some indicators have normally distributed differences (e.g. SBS 2020- SBS 2005). SBS, GCS and ECS are normality distributed because their p-values are greater than significance level of 0.05. Nevertheless, RPS and RIS are not normally distributed because their p-values are less than significance level of 0.05. These results will not affect the use of parametric test (paired sample t test) because the sample is not small. Ghasemi and Zahediasl (2012) indicated that normality and other hypotheses should be taken seriously because it is difficult to draw accurate conclusions if they do not hold. However, the authors added that the breach of the normality principle does not trigger major problems with large enough sample sizes (> 30 or 40); this means that we can use parametric procedures even though the data are not normally distributed. The Table 4 presents the results of paired sample t-test.

Table 4: Results of paired sample t test

	SBS	RPS	GCS	ECS	RIS
T	11.384	3.3374	4.9238	1.4384	5.0804
Df	36	36	36	36	36
P-value	<0.001	0.001974	0.00001896	0.159	0.00001175
Mean of the Differences	37.72162	10.52703	18.17838	2.251351	9.440541
V		552			450
pvalue		0.00255			0.000008065

Source: Autor's calculation

T refers to the t-value used to construct the confidence limits. Dt refers to the degrees of freedom used to determine the T distribution which the number of observation minus one (37 -1 =36). The p-value is the probability level or significance level. If the null hypothesis is valid, the p-value is the likelihood that the test statistic will take a value at least as extreme as the observed value. The null hypothesis is rejected in favour of the alternative hypothesis if the p-value is less than the specified value, in this case 0.05. Aside from that, there isn't enough proof to rule out the null hypothesis. The mean of difference is the average of the paired differences. V represents the statistics of Wilcoxon signed rank test.

DISCUSSION

Paired sample t test was applied to test whether SSA made statistically significant improvements on Starting a business score (SBS), registering property score (RPS), getting credit score (GCS), enforcing contracts score (ECS), and resolving insolvency score (RIS). If the difference of paired for each indicator analyzed is statistically different from zero, this means that SSA made improvement on the indicator. If the mean difference is not statistically different from zero; this means that SSA did not make any statistically improvement from 2005 to 2020. The significance level is fixed at 0.05. If the p-value is less than significant level, the null hypothesis that the mean difference is equal to zero was rejected. That means the mean difference is statistically different from zero.

A paired-samples t-test was conducted to compare starting a business score of 2005 and starting a business score of 2020. There was a statistically significant difference in starting a business score of 2005 (M=43.676, SD= 18.784) and starting a business score for 2020 (M= 81.397, SD= 11.155);t (36)=11.384, p = < 0.001. These results suggest that starting a business score has statistically changed. Specifically, the results indicate that SSA improved starting a business score since 2005 to 2020.

A paired-samples t-test was conducted to compare registering property score of 2005 and registering property score of 2020. There was a statistically significant difference in registering property score of 2005 (M=43.692, SD= 15.931) and registering property score for 2020 (M= 54.219, SD= 12.558); t (36) =3.3374, p = 0.001974. These results suggest that registering property score has statistically changed. Specifically, the results indicate that SSA improved registering property score since 2005 to 2020. The Wilcoxon signed rank test also confirms that the differences is statistically different from zero V= 552,p-value =0.00255.

A paired-samples t-test was conducted to compare getting credit score of 2005 and getting credit score of 2020. There was a statistically significant difference in getting credit score of 2005 (M=30.605, SD= 18.800) and getting credit score for 2020 (M= 48.784, SD= 26.125); t (36) =4.9238, p = <0.001. These results suggest that getting credit score has statistically changed. Specifically, the results indicate that SSA improved getting credit score since 2005 to 2020.

A paired-samples t-test was conducted to compare enforcing contracts score of 2005 and enforcing contracts score of 2020. There was not a statistically significant difference in enforcing contracts score of 2005 (M=48.189, SD= 11.634) and enforcing contracts score of 2020 (M= 50.441, SD= 11.019);t (36) = 1.4384, p = 0.159. These results suggest that enforcing contracts score has not statistically changed. Specifically, the results indicate that SSA did improve enforcing contracts score since 2005 to 2020.

A paired-samples t-test was conducted to compare resolving insolvency score of 2005 and resolving insolvency score of 2020. There was a statistically significant difference in resolving insolvency score of 2005 (M=25.6, SD= 13.525) and resolving insolvency score for 2020 (M= 35.041, SD= 17.384); t (36) = 5.0804, p = <0.001. These results suggest that resolving insolvency score has statistically changed. Specifically, the results indicate that SSA improved resolving insolvency score since 2005 to 2020. The Wilcoxon signed rank test also confirms that the

differences is statistically different from zero $V = 450$, p -value < 0.001 .

CONCLUSIONS

This study evaluated the how Sub-Sahara improved starting a business score (SBS), registering property score (RPS), getting credit score (GCS), enforcing contracts score (ECS), and resolving insolvency score (RIS) during the last 15 years. Annual data for 2005 and 2020 for Sub-Sahara African countries were collected from the World Bank web site. Data for 50 countries were collected. However, after checking for missing data, 13 countries were removed from the sample. Descriptive statistics were presented. The normality of the difference was checked using Shapiro Wilk test. Paired sample t test was used to examine whether there was a statistically significant change in the indicators under investigation. The results of paired sample t-test revealed that out of the five indicators examined, four indicators were significantly improved except enforcing contracts score (ECS) which did not change its score after 15 years.

PRACTICAL IMPLICATION

The study has significant implications for the policymakers from Sub-Sahara African countries as according to the study outcomes. It is appropriate to advise the policymakers to keep on improving ease of doing business individual indicators. They should work hard to improve enforcing contracts score since it did not change since 15 years. The benefits of improving business environment were proven by prior studies including encouraging new business creation (Roman & Rusu, 2021), companies high productivity (WB, 2020), increasing gross domestic product (Haidar, 2012), promoting entrepreneurial activity (Roman and Rusu, 2016), attracting foreign direct investment (Nangpiire, Rodrigues, & Adam, 2018). This would help attracting foreign investors as FDI was predicted to fall to reach -45 to -30 in Europe, North America -35 to -20, -40 to -25 in Africa, -45 to -30 in Asia, Latin America and the Caribbean -55 to -40, and in transition economies -45 to -30, (United Nations Conference on Trade and Development, 2020). Policymakers should use the results of this study to communicate the improvements made with regards to ease of doing business to attract foreign investors to bring financial capital and new technology in Sub-Sahara African countries. The result of this study should support policymakers in attracting local investors and encourage entrepreneurship in their respective countries.

LIMITATION AND RECOMMENDATION FOR FUTURE STUDY

However, this study has limitation. The indicators examined are a combination of some other sub-indicators. Starting a business is a component of procedures, time, cost, and paid-in minimum capital to start a limited liability company for men and women. This study did not evaluate how those sub-indicators were improved. The study did not evaluate the most influential sub-indicator in each indicator's score. Further study should be conducted to evaluate how each individual sub-indicator was improved. Further study also should evaluate the most influential sub-indicator in each indicator. Furthermore, this study concerns only Sub-Sahara Africa. The result may not be generalized on other economies as the sample size is small to allow generalization. Other studies should be conducted in other regions to evaluate the extent of improvement.

LIST OF ABBREVIATIONS

ECS: Enforcing contracts score

GCS: Getting credit score

M: mean

RIS: Resolving insolvency score

RPS: Registering property score

SBS: Starting a business score

SD: Standard deviation

SSA: Sub-Sahara Africa

WB: World Bank

REFERENCES

1. Adekunle, I. A., Tella, S. A., & Adelowokan, O. A. (2021). Macroeconomic policy volatility and household consumption in Africa. *SN Bus Econ*, 1:53, <https://doi.org/10.1007/s43546-021-00055-8>
2. African Development Bank (2013). Determining the correlates of poverty for inclusive growth in Africa. Working paper series 181. Retrieved from <https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Working%20Paper%20181%20Determining%20the%20Correlates%20of%20Poverty%20for%20Inclusive%20Growth%20in%20Africa.pdf>
3. Ahlquist, J. S. & Prakash, A. (2009). FDI and the costs of contract enforcement in developing countries. *Policy Sci*, 43:181–200 DOI 10.1007/s11077-009-9093-3
4. Asongu, S. A. & Odhiambo, N. M. (2018). Challenges of doing business in Africa: a systematic review. *African Governance and Development Institute, WP/18/057*, DOI:10.4324/9780429331961-8
5. Bonga, W. G. & Mahuni, K. (2018). Assessing the impact of ease of doing business and corruption on economic growth for Africa Free Trade Zone (AFTZ) Member States. Retrieved on https://mpra.ub.uni-muenchen.de/88932/1/MPRA_paper_88932.pdf
6. Buckley, P. J. & Casson, M. C. (2009). The internalisation theory of the multinational enterprise: a review of the progress of a research agenda after 30 years. *Journal of International Business Studies*, 40, 1563–1580
7. Canare, T. (2018). The effect of ease of doing business on firm creation. *Annals of Economics and Finance*, 19(2): 555-584
8. Chambers, D. & Munemo, J. (2019). Regulations, institutional quality and entrepreneurship. *International Journal of Energy Economics and Policy* 11(2):133-140, DOI: 10.32479/ijeep.10584
9. Čisar, P. (2010) Skewness and Kurtosis in function of selection of network traffic distribution. *Acta Polytechnica Hungarica* 7 (2).
10. Davari D, Farokhmanesh J (2017) Regulations, institutional quality and entrepreneurship. *Journal of Regulatory Economics* 55(1).
11. Djankov, S., La Porta, R., Lopez-De-Silanes F., & Shleifer A (2002). The regulation of entry. *The Quarterly Journal of Economics* CXVII (1).
12. Dut, V. V. (2015). The effects of local business environments on SMEs' performance: empirical evidence from the Mekong Delta. *Asian Academy of Management Journal* 20 (1), 101 :122.
13. Etzioni, A. (2009). The capture theory of regulations-revisited. *Society*, 46, 319 :323
14. Ghasemi, A., Zahediasl, S. (2012) Normality tests for statistical analysis: a guide for non-Statisticians. *Int J Endocrinol Metab* 10(2):486-9, DOI: 10.5812/ijem.3505
15. Haidar, J. I. (2012). The impact of business regulatory reforms on economic growth. *J. Japanese Int. Economies* 26, 285:307
16. Haliti, B., Merovci, S., Hetemi, A., & Sherpa, S. (2019). The impact of the ease doing business indicators on foreign direct investment in the European transition economies. *Ekonomika* 98(2) 19 : 32.
17. Hossain M T, Hassan Shafiq, Basit A (2018) Ease of doing business and its impact on inward FDI. *Indonesian Journal of Management and Business Economics* (2018), 1 (1), 52 :65
18. Jang Y, Lee W J, Hadley B (2020) Interactive effects of business environment assessment and institutional programs on opportunity entrepreneurship. *Sustainability* 2020, 12, 5280; doi:10.3390/su12135280
19. Koks E, Pant R, Thacker S, Hall J W (2019) Understanding business disruption and economic losses due to electricity failures and flooding. *Int J Disaster Risk Sci* (2019) 10:421–438, <https://doi.org/10.1007/s13753-019-00236-y>
20. Kwak S G, Park S H (2019) Normality test in clinical research. *Journal of Rheumatic Diseases* 26(1), <https://doi.org/10.4078/jrd.2019.26.1.5>
21. Martins R A, Serra F R., Leite A S, Ferreira M P., and Li D (2010) Transactions cost theory influence in strategy research: a review through a bibliometric study in leading journals. Retrieved on <http://www.anpad.org.br/admin/pdf/eso82.pdf>.
22. Mishra P, et al. (2019) Descriptive statistics and normality tests for statistical data. *Annals of Cardiac Anaesthesia* 22(1).
23. Rindfleisch A (2019) Transaction cost theory: past, present and future. *Academy of Marketing Science Review*. DOI: 10.1007/s13162-019-00151-x

24. Roman A, Rusu V (2016) The impact of the economic environment on entrepreneurship: evidence from European countries. *The Annals of the University of Oradea. Economic Sciences* 25(1).
25. Roman A, Rusu V D (2021) Entrepreneurship and business environment: effects of regulations in European countries. *Montenegrin Journal of Economics* 17(4):133-144.
26. Scand J D, Nyamwange M (1995) Population growth and development: the Kenyan experience. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/12291578>
27. Senadjk A, Ogbeibu S, Yip C Y, Yong H N A, Senadjki M (2021) The impact of corruption and university education on African innovation: evidence from emerging African economies. *SN Bus Econ* , 1:65 , <https://doi.org/10.1007/s43546-021-00063-8>
28. Stephan, K. & David, L. (2007) The impact of population growth on economic growth and poverty reduction in Uganda. Retrieved from <https://www.econstor.eu/bitstream/10419/31966/1/534768717.pdf>
29. United Nations Conference on Trade and Development (2020) World investment report2020. Retrieved from https://unctad.org/en/PublicationsLibrary/wir2020_en.pdf
30. Włodarczyk et al. (2018). The impact of credit availability on small and medium companies. *Journal of Entrepreneurship and Sustainability Issues* 5(3) 565:580
31. World Bank Group (2020) Doing Business 2020. Retrieved on <http://documents1.worldbank.org/curated/en/688761571934946384/pdf/Doing-Business-2020-Comparing-Business-Regulation-in-190-Economies.pdf>