

## The Impact of Entrepreneurial Determinants on Ease of Doing Business in English-Speaking West African Countries (ESWACS)



Poi, G.<sup>1</sup> Uzomba, P. C.<sup>2</sup>

<sup>1</sup>Department of Business Administration, University of Africa, Toru, Toru-Orua, Bayelsa State

<sup>2</sup>Corresponding Author: Department of Economics, Federal University Lokoja

**ABSTRACT:** This study investigated the impact of entrepreneurial determinants on ease of doing business in the five English-Speaking West African Countries (ESWACS) of Nigeria, Ghana, Sierra Leone, Liberia and The Gambia. It used secondary data sourced from the OECD and the World Bank. The independent variables were the Entrepreneurial Determinants (ED) of regulatory framework proxied by Small and Medium Enterprise Sale Tax (SSTR); access to finance proxied by both Interest Rate Spread (INTR) and Domestic Credit to Private Sector (DCPS). The dependent variable was the Ease of Doing Business Ranking (EDBR). Five research objective and five hypotheses based on the Keynesian, Monetary and Schumpeter theoretical inferences guided the study. The study used ex-post factor research design and descriptive statistical, correlation matrix, Panel-ARDL, Granger causality, and impulse response methods for the analyses. The results revealed that SSTR is positively and weakly correlated with EDBR, but has negative and weak correlation with INTR and DCPS. Long run relationship was found not to exist between SSTR, INTR and DCPS, and EDBR, but the dynamic short run ARDL regression reveals high levels of coefficient of determination. On country-specific analysis, the cross-sectional result showed SSTR, INTR and DCPS positively impacted on ease of doing business in Nigeria and Sierra Leone but had a negative impact in Ghana, Liberia and The Gambia. It was further revealed that zero Granger causality existed among SSTR, INTR, DCPS and EDBR; and mixed impulse responses were revealed from the impulse response result. It was also recommended that governments of ESWACS should ensure the continuous use of mixed expansionary policies to ensure that Entrepreneurial determinants positively impact the ease of doing business in the area.

**KEYWORDS:** Entrepreneurship, Business, ESWACS, Tax, Interest Rate, Credit, Panel-ARDL

**JEL CLASSIFICATION:** C19, C21 - C23, H25, E48, E51, E62, L26, M21, O29

### INTRODUCTION

With a population of about 377 million and a combined Gross Domestic Product (GDP) of \$615 billion in 2019, the Economic Community of West African States (ECOWAS) is one of the most populous and a major economic trading block in Africa. The African Development Bank (AfDB, 2019) projected very good growth prospects for 2019-2020 while recognising that some economies within the trading areas such as Nigeria would underperform.

Five of the fifteen ECOWAS states are English speaking countries. They are called English Speaking West African Countries (ESWAC) and comprise Nigeria, Ghana, Liberia, Gambia and Sierra Leone. As at 2019, these countries accounted for 64% (240 million) of the total ECOWAS population. With a cumulative GDP of \$473 billion, they combined to form the largest economies with 77% of the GDP of ECOWAS. They are therefore a very important trading block in the region and the success or failure of their economies has a significant impact on many lives. Indeed, in 2019, Nigeria alone accounted for 52% (196 million) of the population and 65% (\$398 billion) of the GDP.

The above statistics underline the importance of the region in terms of the business activities and imperative for a vibrant and robust economy to develop the area. There is need therefore to attract foreign direct investment (FDI) as well as grow local businesses to create wealth and jobs in the region to support its rapidly growing population.

There is, also, overwhelming theoretical and empirical evidence pointing to the fact that entrepreneurship and enterprises are critical components in the development of businesses in every economy; as it contributes to creation of jobs and wealth for economic growth, development and prosperity (Akame, Ekwele, & Njei, 2016; Bayraktar, 2015; Eifert, 2009; and Fahmi, 2012). Entrepreneurial determinants influence greatly how businesses perform in different economies under different

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economic policies and economic measures, and how business is done with ease. Undoubtedly, the ease of doing business plays a significant role in every country as it shows how entrepreneurs operate their businesses. The factors that attract FDI and thriving local businesses are particularly impacted by entrepreneurial determinant factors and ease of doing business in that economy. What is not too clear however is the relationship between the entrepreneurial determinants and the ease of doing business in any country and their impact on the performance of the economy as it relates to business activities. In order to address these issues, it is important to first understand the concepts and put them in context for this study.

### Understanding Entrepreneurial Determinants and Ease of Doing Business

The Organization for Economic Co-operation and Development (OECD, 2011), described entrepreneurial determinants as streamlined effectual policies that provide an enabling macroeconomic environment that allows economic activities to thrive. These entrepreneurial determinants are the relevant business regulatory and control variables that allow for the smooth running of businesses. They are critical factors that determine the success and sustainability of entrepreneurship for economic growth and development. Recognizing their importance, the OECD (2011) identified six major indicators of entrepreneurial determinants namely: regulatory framework; market conditions; access to finance; creation of diffusion of knowledge; entrepreneurial capabilities; and entrepreneurship culture. This paper uses two of the OECD listed entrepreneurial determinants for our analyses. The two categories are the regulatory framework proxied by small and medium enterprises tax rate (SSTR) and access to finance proxied by interest rate spread (INTR). The use of these indicators does not imply that they are not without criticisms, but they are seen as flexible and can potent good precursors for ease of doing business. For example, both the World Bank (2020) and International Financial Statistics (2020) would suggest that using them to represent determinants of entrepreneurship could be logical given that they form part of what constitutes cost of doing business and macroeconomic business environment. Though however, some of the figures should have shown higher rankings for some countries within the ESWACs. Average SSTR in Nigeria between 2010 and 2019 was about 5% compared with 12.5% in Ghana, yet Ghana was ranked higher than Nigeria for ease of doing business during the period

Indeed, if other supporting factors that stimulate economic activities such as monetary and fiscal policies as well as other administrative policy measures are taken into consideration, then one would have expected higher ranking of the countries using SSTR alone. The other considerations, for example, would include the setting up a Presidential Enabling Business Environment Council (PEBEC) in 2016 in Nigeria to focus on minimizing foreseeable and unforeseeable constraints associated with starting and running businesses. This was done with a view to making it more convenient for businesses to thrive. Also in 2017, as part of creating a favourable and friendly business environment, the Nigerian Immigration Service (NIS) reviewed the requirements for business visas to make them more customer-friendly. Additionally, the Nigerian government has also promoted technology with a view to making business regulatory requirements more transparent, much faster processing times and making the overall economy more business-friendly.

Ghana is also making efforts to ease the burden of doing business in the country. These measures include reducing the time needed for processing and registration of business, automating the process of obtaining operating permit, digitising the registration and inspection of business, and the metropolitan authorities have been reinforced and charged to ensure that the ranking of ease of doing business is scaled up. In Sierra Leone, The Directorate of Science Technology and Innovation (DSTI) and the Ministry of Trade and Industry (MTI) have developed and implemented evidence-driven reforms for efficient public service delivery and to make Sierra Leone better for business and trade, and there has been integration of coordinated effort across all Ministries, Departments, and Agencies (MDAs) engaged in service delivery (DSTI Media, 2020). Oduwole (2020) argued that governments are committed to engaging relevant organs of government and the private sector in the direction of improving business in Nigeria. Despite all these efforts no ESWAC country has ever been ranked well than 60<sup>th</sup> position in the world. The most recent report shows the following rankings:

**Table 1: Ease of Doing Business Ranking for the ESWACs**

Countries	Yearly Ranking			
	2020	2019	2018	2014
Nigeria	133 <sup>th</sup>	131 <sup>st</sup>	146 <sup>th</sup>	170 <sup>th</sup>
Ghana	60 <sup>th</sup>	118 <sup>th</sup>	114 <sup>th</sup>	111 <sup>th</sup>
Sierra Leone	150 <sup>th</sup>	163 <sup>rd</sup>	163 <sup>rd</sup>	145 <sup>th</sup>
Liberia	155 <sup>th</sup>	175 <sup>th</sup>	174 <sup>th</sup>	150 <sup>th</sup>
The Gambia	145 <sup>th</sup>	155 <sup>th</sup>	146 <sup>th</sup>	150 <sup>th</sup>

**Source:** Trading economics, 2020; International Financial Statistics, 2020; and World Bank, 2020

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While there have been some marginal improvements in the overall rankings over the years, Tunde (2020) has however observed that there are still existing counterproductive policies that make running businesses hard and, the ease of doing business could be better, but the actual process of running a business has been stifled. Also, a World Bank (2020) assessment further showed that Liberia has deteriorated remarkably over the years. Magdalene (2019) has noted that Ghana went down four places in World Bank Ease of Doing Business report (World Bank, 2020) which he has attributed to the government's decision to convert GET Fund and NHIL levies to straight taxes. The World Bank (2020) has also reported that this conversion made paying taxes more difficult and more costly as the businesses have to bear the associated costs, and consequently get discouraged in doing business.

Despite the regional and individual efforts made by the governments of ESWACs to improve ease of doing business, their average score for ease of doing business was 51.8 during the period of this study. This score compares with that of high-income countries' average of 78.4 and the global average of 63.0, points to the fact that the region is lagging behind the threshold. It is not immediately obvious from this data the extent, if any, to which the entrepreneurial determinants (regulatory framework, market conditions, access to finance, and creation of diffusion of knowledge, entrepreneurial capabilities, and entrepreneurship culture) have impacted the ease of doing business in ESWACs. Hence, we are motivated to investigate the relationship between the entrepreneurial determinants and ease of doing business in ESWACs by considering regulatory framework (proxied as SSTR), and access to finance (proxied as interest rate spread (INTR) and domestic credit to private sector (DCPS)).

This study therefore focuses on addressing the following questions:

1. What nexus exists between entrepreneurial determinants and ease of doing business in ESWACs?
2. Do long run relationships exist between entrepreneurial determinants and ease of doing business in ESWACs?
3. Can entrepreneurial determinants be used to forecast ease of doing business in ESWACs?
4. What are the interactions between entrepreneurial determinants and ease of doing business within Cross-sectional and Date Effects Dimensions in ESWACs?
5. How does ease of doing business impulsively respond to entrepreneurial determinants in ESWACs?

Providing empirical answers to these questions is the crux of this study.

## **2. LITERATURE REVIEW: THEORETICAL AND EMPIRICAL UNDERPINNINGS**

### **Theoretical Underpinning**

How entrepreneurial determinants relate or causally impact on ease of doing business is relatively gaining attentions of policy analysts and academics. Our task under this section is to provide some theoretical and empirical underpinnings on the subject matter. The theoretical discussions around the subject matter have linked entrepreneurship with economic growth, with, perhaps, unintended omission of the 'actor' (entrepreneur) and transmission mechanism of the process. To this end, our study therefore adopts the Keynesian Economic Theory, Monetary theory (credit theory) and Schumpeter's Theory of Economic Growth and Development. The first was propounded in 1940s by John Maynard Keynes (1883-1946) who argues in favour of government intervention in the economic activities of the state. Such intervention is needed to salvage a dwindling economy, especially where there is continuous rise of market failure. The theory argues that through the use of expansionary fiscal policy measure, government increases total expenditures and lowers taxes to stimulate demand and pull the economy out of undesirable state and place it on the path of a more desirable state. In relation to our study, such interventions emphasize lowering of small and medium enterprises saletaxes. The second theory argues from the point of view of monetary economic philosophy through the instrumentality of expansionary monetary policy. It is argued that increase in money supply and lowering of interest rate also stimulates economic activities to be able to place a depressed economy on the path of recovery. It is therefore presumed through the transmission mechanism of expansionary monetary policy, increase in money supply increases domestic credit to private sector as a percentage of gross domestic products; and reduces the spread of lending interest rate.

Essentially, the ultimate goal of theorizing within economic phenomena is to cause actions that will lead to economic growth and development. Thus, it becomes important that theses theoretical dispositions are placed side-by-side with how economic growth could be achieved through entrepreneurship. This heightens the need for the inclusion of the third theory - Schumpeter's Theory of economic growth and development. This theory situates its argument within a context of four features namely: circular flow; role of entrepreneur; cyclical process or business cycle; and end of capitalism. Our concern is on the second feature which argues that economic activity produces itself continuously at a constant rate through entrepreneurial

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activities. Economic literature suggest that in the process of development, an entrepreneur or inventor occupies the central place – this is so, as he/she is saddled with the responsibility of initiating and sustaining development in an economy. In this regards, creating an enabling environment through government policies (expansionary fiscal and monetary policies) will ease the difficulties and hurdles in the process of carrying out these saddled responsibilities. On the strength of this, our theoretical framework is such that the use of expansionary fiscal and monetary policies will reduce SME sale tax rate, narrow interest rate spread and increase domestic credit to private sector (entrepreneurs), thereby create an atmosphere of ease of doing business in the economies concerned.

### **Empirical Underpinnings**

Mohamed, Zubari and Shafiq (2018) sermonized that ease of doing business did not significantly impact on FD, and Timothy and Harvey (1999) advocated that the after-tax price increases by exactly the amount of the tax, a result consistent with the standard competitive model. Kiptui (2014) reported that interest rate spread is necessary for the growth and sustenance of Kenya's Banking Sector; Varaidzo and Asrat (2018) reported that there is a significant negative relationship exists between banking efficiency and a positive shock to interest rate spread in South Africa. Mohammed (2016) documented that in the short run and long run, positive and significant relationships exist among the real GDP and real domestic saving and domestic credit offered to the private sector in Saudi Arabia; entrepreneurial determinants have implications for ease of doing business, foreign direct investments, local businesses, and impacted by the processes, rules, and regulations set up by governments that can help promote a business-friendly environment or hold local businesses back from their entrepreneurial ambitions (The Friedrich Naumann Foundation, 2017).

Bayraktar (2015) found that when there are fewer procedures, shorter time taken and lower costs of registering business occur, there is evident of increase in FDI inflows. The for egoingearns support from Morris and Aziz (2011); Kofarbai and Bambale (2016) as their studies also found that registering business was related to increase inward FDI in an economy. Olival (2012) reported that a focus is constituted in countries with high quality institutions that guarantees the protection of property rights. Bayraktar (2015) documented that getting credit indicators are highly significant determinants of FDI inflows and that countries that have better qualities of getting credit indicators can receive a larger amount of FDI inflows. Paying taxes indicators in Afghanistan, Bangladesh, India, Iran, Pakistan and Sri Lanka have revealed evidence of reasonable FDI inflow (Shahadan, Sarmidi & Faizi, 2014).

Tax rate differences will significantly impact investment decisions (Fahmi, 2012). In a couple of researches, this finding appeared to be true for most of the countries (Singh, 2015; Bayraktar, 2015; Akame, Ekwelle and Njei, 2016; Moges, Ebero & Begum, 2016). In Bayraktar's study, indicators of enforcing contracts (the number of procedures and required days) have a relatively strong effect on FDI inflows. However, the cost of enforcing contracts was found to be not significant (Bayraktar, 2015). In Zimbabwe, Mahuni and Bonga (2017) reported similar results as Bayraktar (2015) in respect to inflow of FDI. It is reported that countries like South Africa, Namibia and Zambia were found to provide relatively strong legal environment in enforcing contract (Nnadozie & Njuguna, 2011), improving the time consumed to enforce contracts penetrates growth in FDI (Eifert, 2009; Singh, 2015); and enforcing contracts are found to positively impact inward FDI in numerous researches (Zhang & Benjamin, 2007; Morris & Aziz, 2011; Singh, 2015; Mahuni & Bonga, 2017).

Evidence abound that there is an extensive literature on entrepreneurship, but literature related to entrepreneurial determinants and ease of doing business is limited, paucity, if not lacking. According to past researches, there are discussions around how ease of doing business impacts on a number of variables in various economies. More noticeable is the use of small number of sample countries; well, this is hinged on the excuse that ease of doing business is relatively new in economic space. Other studies have made deliberate efforts to conduct panel data studies with different methods of study, rather than Panel-ARDL methods. Consequently, our study fulfils a research mandate by contributing to fill the gap by conducting a study on the impact of entrepreneurial determinants on ease of doing business in English-Speaking West African Countries (ESWACs); using regulatory framework (measured in terms of SMEs sale tax); access to finance measured in terms of interest rate spread and domestic credit to private sector; and ease of doing business ranked positions. Consequently, our study considers five countries that make up ESWACs – Nigeria, Ghana, Sierra Leone, Liberia and Gambia. Following the disposition of the empirical literature that entrepreneurial determinants positively affect ease of doing business in different economies; we therefore hypothesize as follows:

**H<sub>1</sub>:** Entrepreneurial determinants have significant positive relationship with ease of doing business in ESWACs.

**H<sub>2</sub>:** Long relationships exist between entrepreneurial determinants and ease of doing business in ESWACs.

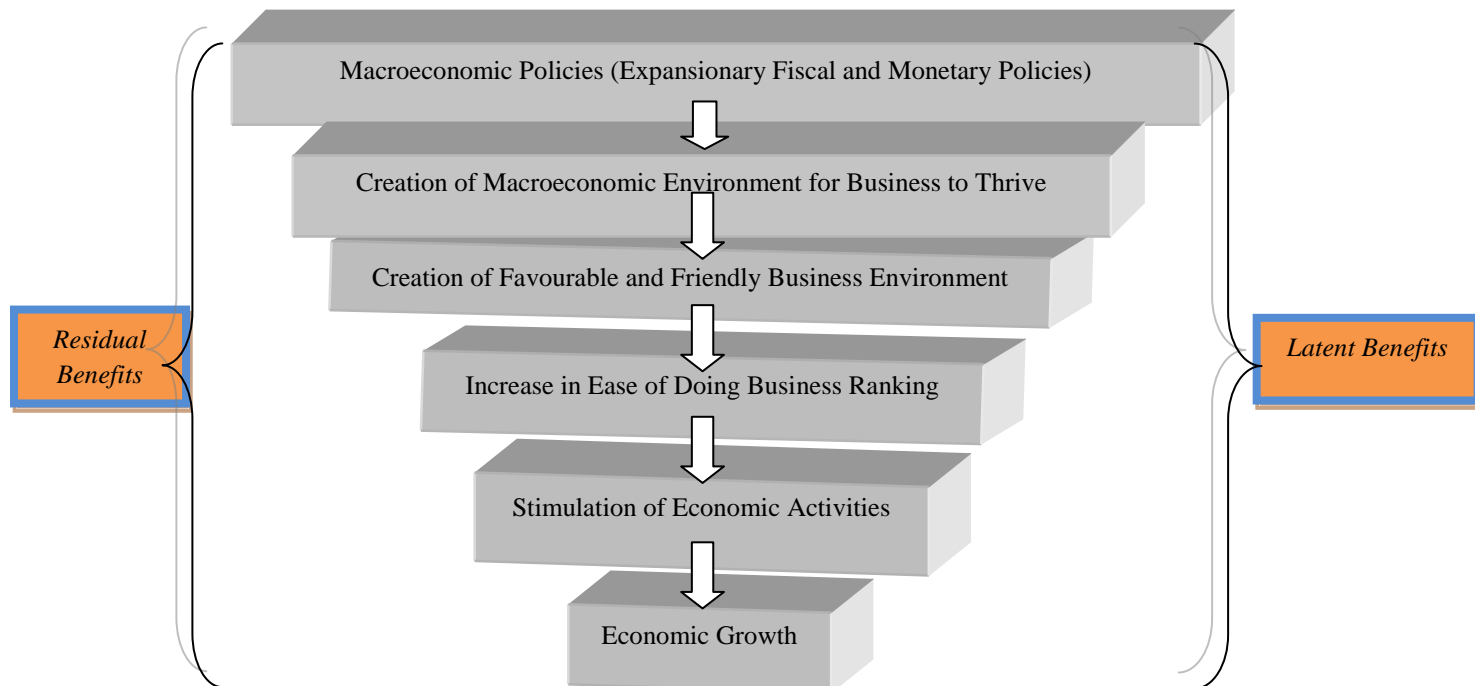
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H<sub>3</sub>: Entrepreneurial determinants can be used to forecast ease of doing business in ESWACs.

H<sub>4</sub>: There is positive Cross-sectional and Date Effects between entrepreneurial determinants and ease of doing business in ESWACs.

H<sub>5</sub>: Ease of doing business positively responds to entrepreneurial determinants in ESWACs.

Following our theoretical framework, we proposed conceptual framework as designed and reported in Figure 1 below:



**Figure 1:** Proposed Conceptual Framework for Entrepreneurial Determinants and Ease of Doing Business

**Source:** Inferential Design from the Theoretical Framework by the Authors, 2020

### 3. RESEARCH METHODOLOGY

We adopted ex-post factor research design and use a variety of methods to investigate the subject matter. We relied on secondary data made available by World Bank sourced from Trading economics, International Financial Statistics and World Bank (2020). The analytical procedure is sequenced in this order: first we conducted descriptive statistical and correlation matrix test to address the question of; what nexus exists between entrepreneurial determinants and ease of doing business in ESWACs? The issue of stationarity was addressed using Augmented Dickey-Fuller (ADF), Philip-Perron (PP) and Kwiatkowski-Phillips-Schmidt-Shin (KPSS) unit root test techniques. To find out if long run relationships exist between entrepreneurial determinants and ease of doing business in ESWACs, we conducted Panel-ARDL test. Granger causal test was conducted to address the question - can entrepreneurial determinants be used to forecast ease of doing business in ESWACs? Interactions between entrepreneurial determinants and ease of doing business were established by conducting cross-sectional and date effects tests; and the responds of ease of doing business to entrepreneurial determinants in ESWACs were established using impulse response method.

The variables are basically two entrepreneurial determinants used as independent variables, measures in terms of regulatory framework and access to finance. Further, these determinants are proxied, for research convenience, as small and medium enterprises (SME) sale tax (regulatory framework) and interest rate spread and domestic credit to private sector (access to finance). The consideration of the proxies of these variables follows the indicators of entrepreneurial determinants reported by OECD (2019). On the other hand, ease of doing business ranking as published by the World Bank (2020) was used as a dependent variable.

#### Estimation of Panel Ardl Bounds Model

ARDL is adjudged as the major workhorse in dynamic single-equation regression analysis. As an advantage, it involves standard least squares regressions that include lags of both the dependent variable and explanatory variables as regressors (Greene, 2008; Pesaran & Shin, 1998; and Pesaran, Shin & Smith, 2001). We modified this method by using Panel-ARDL approach. The

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implicit assumptions that underpin Panel-ARDL equations include: across time and cross section dimensions; the models must contain the lagged value(s) of the dependent variable, the current, and lagged values of the regressors; the models use a combination of endogenous and exogenous variables; there must be the absence of autocorrelation; the data should not have any heteroscedasticity feature, and be stationary either on I(0) or I(1) or on both, and not stationary at I(2) (Pesaran, Shin & Smith, 2001; and Priya, 2018). In recognition of these assumptions, we relied on the theoretical framework to specify the relevant equations as follows:

$$\text{Functional relationship: } EDBR_{ti} = f(ENTD)_{ti} \quad 1$$

**Where:** EDBR = Ease of Doing Business Ranking; ENT D = Entrepreneurial Determinants; ti = time series and cross section dimensions. From equation 1, Panel ARDL models are estimated as follows (Note that this is done on the basis of the number of the variables):

$$\Delta \ln(EDBR)_{1(ti)} = \lambda_0 + \lambda_1 \ln(EDBR)_{t-1(ti)} + \lambda_2 \ln(SSSTR)_{t-1(ti)} + \lambda_3 \ln(INTR)_{t-1(ti)} + \lambda_4 \ln(DCPS)_{t-1(ti)} + \sum_{i=0}^i \Lambda_{2i} \Delta(EDBR)_{t-i(ti)} + \sum_{i=0}^j \Lambda_{3i} \Delta(SSSTR)_{t-i(ti)} + \sum_{i=0}^k \Lambda_{4i} \Delta(INTR)_{t-i(ti)} + \sum_{i=0}^l \Lambda_{5i} \Delta(DCPS)_{t-i(ti)} + \mu_{t(ti)} \quad 2$$

$$\Delta \ln(SSSTR)_{1(ti)} = \lambda_0 + \lambda_1 \ln(SSSTR)_{t-1(ti)} + \lambda_2 \ln(EDBR)_{t-1(ti)} + \lambda_3 \ln(INTR)_{t-1(ti)} + \lambda_4 \ln(DCPS)_{t-1(ti)} + \sum_{i=1}^i \Lambda_{1i} \Delta(SSSTR)_{t-i(ti)} + \sum_{i=0}^j \Lambda_{2i} \Delta(EDBR)_{t-i(ti)} + \sum_{i=0}^k \Lambda_{3i} \Delta(INTR)_{t-i(ti)} + \sum_{i=0}^l \Lambda_{4i} \Delta(DCPS)_{t-i(ti)} + \mu_{t(ti)} \quad 3$$

$$\Delta \ln(INTR)_{1(ti)} = \lambda_0 + \lambda_1 \ln(INTR)_{t-1(ti)} + \lambda_2 \ln(SSSTR)_{t-1(ti)} + \lambda_3 \ln(EDBR)_{t-1(ti)} + \lambda_4 \ln(DCPS)_{t-1(ti)} + \sum_{i=1}^i \Lambda_{1i} \Delta(INTR)_{t-i(ti)} + \sum_{i=0}^j \Lambda_{2i} \Delta(SSSTR)_{t-i(ti)} + \sum_{i=0}^k \Lambda_{3i} \Delta(EDBR)_{t-i(ti)} + \sum_{i=0}^l \Lambda_{4i} \Delta(DCPS)_{t-i(ti)} + \mu_{t(ti)} \quad 4$$

$$\Delta \ln(DCPS)_{1(ti)} = \lambda_0 + \lambda_1 \ln(DCPS)_{t-1(ti)} + \lambda_2 \ln(INTR)_{t-1(ti)} + \lambda_3 \ln(SSSTR)_{t-1(ti)} + \lambda_4 \ln(EDBR)_{t-1(ti)} + \sum_{i=1}^i \Lambda_{1i} \Delta(DCPS)_{t-i(ti)} + \sum_{i=0}^j \Lambda_{2i} \Delta(SSSTR)_{t-i(ti)} + \sum_{i=0}^k \Lambda_{3i} \Delta(INTR)_{t-i(ti)} + \sum_{i=0}^l \Lambda_{4i} \Delta(EDBR)_{t-i(ti)} + \mu_{t(ti)} \quad 5$$

**Where:**

$\lambda_0$ , = slope of the ARDL regression lines in each equation;  $\lambda_1 - \lambda_4$ , and  $\Lambda_1 - \Lambda_4$  = coefficients of the parameters to be estimated;  $\Delta$  = denotes the first difference operator;  $(EDBR)'_1, (SSSTR)'_1, (INTR)'_1$ , and  $(DCPS)'_1$  are vectors in the models, hence each parameter serves as both dependent and independent variables allowed to be purely 1(0), 1(I) or cointegrated; i, j, k, and l = maximum lags associated with the exogenous variables (note that the maximum lag lengths; ln = Natural log (introduced in order make variables to be on a common scale, reduce extrema, get rid of exponentials and curtail the effects of outliers on the models); t – l = the lagged values; and  $\mu_t$  = vector of the uncorrelated random error term with zero mean and constant variance; ti = t stands for time series dimension for 10 years observation, i stands for cross section dimension for 5 countries (Nigeria coded 1, Ghana coded 2, sierra Leone coded 3, Liberia coded 4 and The Gambia coded 5). On this basis the total observation becomes 50 ('t' = 10 x 'i' = 5).

The ARDL approach allows for estimation of dynamic short run regression, if no long run relationship is found in the Bound test result. Arising from this, the equations are accordingly estimated as follows:

Dynamic Short Run Equations:	$EDBR_{t-1(ti)} = f(EDBR_{t-1(ti)}, SSSTR_{t-1(ti)}, INTR_{t-1(ti)}, DCPS_{t-1(ti)})$	6
	$SSSTR_{t-1(ti)} = f(SSSTR_{t-1(ti)}, EDBR_{t-1(ti)}, INTR_{t-1(ti)}, DCPS_{t-1(ti)})$	7
	$INTR_{t-1(ti)} = f(INTR_{t-1(ti)}, SSSTR_{t-1(ti)}, EDBR_{t-1(ti)}, DCPS_{t-1(ti)})$	8
	$DCPS_{t-1(ti)} = f(DCPS_{t-1(ti)}, SSSTR_{t-1(ti)}, EDBR_{t-1(ti)}, INTR_{t-1(ti)})$	9

A Priori Expectation:  $\frac{dEDBR}{dSSSTR} < 0$ ;  $\frac{dEDBR}{dINTR} < 0$ ;  $\frac{dEDBR}{dDCPS} > 0$ .

**Estimation of Error Correction Mechanism**

If there is cointegration in any of equations 2 to 5, the ARDL model would be estimated and analyzed for each variable as follows:

$$\Delta(EDBR)_{t(ti)} = \omega_0 + \sum_{i=1}^i \omega_{1i} \Delta(EDBR)_{t-i(ti)} + \sum_{i=0}^j \omega_{2i} \Delta(SSSTR)_{t-i(ti)} + \sum_{i=0}^k \omega_{3i} \Delta(INTR)_{t-i(ti)} + \sum_{i=0}^l \omega_{4i} \Delta(DCPS)_{t-i(ti)} + \epsilon_{t(ti)} \quad 10$$

$$\Delta(SSSTR)_{t(ti)} = \omega_0 + \sum_{i=1}^i \omega_{1i} \Delta(SSSTR)_{t-i(ti)} + \sum_{i=0}^j \omega_{2i} \Delta(EDBR)_{t-i(ti)} + \sum_{i=0}^k \omega_{3i} \Delta(INTR)_{t-i(ti)} + \sum_{i=0}^l \omega_{4i} \Delta(DCPS)_{t-i(ti)} + \epsilon_{t(ti)} \quad 11$$

$$\Delta(INTR)_{t(ti)} = \omega_0 + \sum_{i=1}^i \omega_{1i} \Delta(INTR)_{t-i(ti)} + \sum_{i=0}^j \omega_{2i} \Delta(SSSTR)_{t-i(ti)} + \sum_{i=0}^k \omega_{3i} \Delta(EDBR)_{t-i(ti)} + \sum_{i=0}^l \omega_{4i} \Delta(DCPS)_{t-i(ti)} + \epsilon_{t(ti)} \quad 12$$

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$$\Delta(\text{DCPS})_{t(t)} = \Omega_0 + \sum_{i=1}^i \Omega_{1i} \Delta(\text{DCPS})_{t-l(t)} + \sum_{j=0}^j \Omega_{2j} \Delta(\text{SSTR})_{t-l(t)} + \sum_{k=0}^k \Omega_{3k} \Delta(\text{EDBR})_{t-l(t)} + \sum_{l=0}^l \Omega_{4l} \Delta(\text{INTR})_{t-l(t)} + \varepsilon_{t(t)} \quad 13$$

All other parameters retain their earlier definitions, while ECT is the error correction term – which defines the speed of adjustment in the parameters’ coefficients of  $\Omega_1 - \Omega_4$ ;  $\Delta$  is the parameter used to capture the significance of the ECM. Traditionally, a negative coefficient indicates convergence, a positive coefficient indicates a divergence (deviations), and if the values of the coefficient ( $\Omega_1 - \Omega_4$ ) of ECT equals 1 (ECT = 1) or 0.5 (ECT = 0.5), it suggests that 100% or 50% of the adjustment has taken place within the time space; but if they are zero (ECT = 0) it indicates absence of adjustment; in other words disequilibrium still exists. It is worthy of note that ECM test would be conducted on cointegrating equations by relying on estimations done by Okorie, Sylvester and Simon-Peter, (2017), Özer and Karagöl (2018) and Tadesse and Melaku (2019) as a basis for analytical framework.

## 4. RESULTS AND DISCUSSION

### Presentation of Empirical Results

**Table 4.1: Result of Descriptive Statistics and Correlation Matrix Tests**

	EDBR	SSTR	INTR	DCPS
Mean	138.2750	18.20400	14.39425	11.67850
Maximum	175.0000	47.81000	26.00000	18.04000
Minimum	60.00000	5.000000	9.000000	4.800000
Skewness	-1.190257	1.116563	1.439940	-0.439499
Kurtosis	3.835488	3.100682	4.972897	2.024346
Jarque-Bera	10.60815	8.328310	20.31006	2.874231
Probability	0.004971	0.015543	0.000039	0.237612
<b>Correlation Matrix Result</b>				
	EDBR	SSTR	INTR	DCPS
EDBR	1	0.3266	-0.3519	-0.2045
SSTR	0.3266	1	-0.0249	0.1671
INTR	-0.3519	-0.0249	1	0.3525
DCPS	-0.2045	0.1671	0.3525	1

Source: Authors’ Computation, 2020.

Table 4.1 presents the results of descriptive and correlation matrix tests. The first segment of the table reports that the mean values of EDBR, SSTR, INTR and DCPS are 138.28, 18.20, 14.39, and 11.68 respectively. With each of them having their maximum values at 175.00, 47.18, 26.00, and 18.04; and minimum values at 60.00, 5.00, 9.00 and 4.80 respectively. The skewness for the distribution and the kurtosis show that the series do not deviate more than the normal distribution as the values range between -1.19, 1.12, 1.44 and -0.44; 3.84, 3.10, 4.97, and 2.02 for the respective variables. From the result, it is apparent that the hypothesis on whether the variables are normally distributed cannot be dropped since all the probabilities less than the Jarque-Bera values at 5% level of significance. The correlation matrix result reveal that SSTR and EDBR are approximately 33% positively but weakly related, INTR and EDBR are 35% negatively and weakly related, as well DCPS and EDBR being 20% negatively and weakly related.

**Table 4.2: Result of Unit Root Test**

Variables	Categories of Test	ADP P-Value		PP P-value		KPSS P-value		Decision
		Intercept	Trend and Intercept	Intercept	Trend and Intercept	Intercept	Trend and Intercept	
LNEDBR	At Level	0.5388	0.0000	0.3854	0.5214	0.2949	0.1251	Stationary and integrated of order 0 and 1 [(I(0) & I(1))]
	1 <sup>st</sup> Difference	0.0061	0.0148	0.0001	0.0005	0.0813	0.0512	
LNSSTR	At Level	0.7626	0.1650	0.8874	0.1864	0.6829	0.1750	Stationary and integrated of order 0 and 1 [(I(0) & I(1))]
	1 <sup>st</sup> Difference	0.0000	0.0004	0.0000	0.0000	0.4127	0.5000	

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LNITRS	At Level	0.1143	0.3115	0.2066	0.4784	0.0987	0.0929	Stationary and integrated of order 0 and 1 [(I(0) & I(1))]
	1 <sup>st</sup> Difference	0.0004	0.0026	0.0004	0.0028	0.0735	0.0689	
LNDPCS	At Level	0.6918	0.9704	0.6345	0.9611	0.1940	0.1329	Stationary and integrated of order 0 and 1 [(I(0) & I(1))]
	1 <sup>st</sup> Difference	0.0000	0.0002	0.0000	0.0002	0.3359	0.1183	

Source: Authors' Computation, 2020.

From table 4.2, the results of unit root test, using ADP, PP and KPSS approaches, reveal that all variables are stationary and integrated of order 0 and 1, on both intercept and trend and intercept analytical units.

**Table 4.3: Result of Panel-ARDL Bound Cointegration Test**

Equations / Dependent Variables	F-Stat	Critical Value Bounds (CVB) at 5%		Does Long Run Relationship Exist?	Next Action?
		I(0) Bound	I(1) Bound		
LNEDBR	2.7027	3.23	4.35	No; retain $H_0$ (F-stat < CVB)	Estimate ARDL SROLS Model
LNSSTR	1.0612	3.23	4.35	No; retain $H_0$ (F-stat < CVB)	Estimate ARDL SROLS Model
LNITRS	1.9836	3.23	4.35	No; retain $H_0$ (F-stat < CVB)	Estimate ARDL SROLS Model
LNDPCS	2.1346	3.23	4.35	No; retain $H_0$ (F-stat < CVB)	Estimate ARDL SROLS Model

$H_0$ : There is no level or long run relationship or cointegration. SROLS: Short Run Ordinary Least Squares

Source: Extracted from E-Views Result Output Computed by the Authors, 2020.

The results of Panel-ARDL Bound cointegration test suggest that in the four equations or models, no long run relationship or cointegration exists. This is revealed by the fact that all the values of F-stat are found less than the values of I(0) and I(1) bounds, for that reason we retain the null hypothesis and go ahead to estimate the short run ordinary least squares for the none-cointegrated equations, as reported below.

**Table 4.4: Result of Panel Dynamic Short Run ARDL Test**

Variable	LNEDBR Equation		LNSSTR Equation		LNITRS Equation		LNDPCS Equation	
	CV	Prob.	CV	Prob.	CV	Prob.	CV	Prob.
LNEDBR	Nil	Nil	0.0117	0.7297	-0.0133	0.2793	-0.0248	0.1004
LNEDBR(-1)	0.8789	0.0000	Nil	Nil	Nil	Nil	0.0287	0.0692
LNEDBR(-2)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
LNSSTR	0.2939	0.2232	Nil	Nil	-0.0991	0.1179	0.1125	0.0078
LNSSTR(-1)	Nil	Nil	0.84311	0.0000	0.0829	0.1821	-0.0635	0.1350
LNSSTR(-2)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
LNITRS	0.3311	0.6875	-0.7974	0.0926	Nil	Nil	0.3143	0.0077
LNITRS(-1)	Nil	Nil	0.9030	0.0527	1.0472	0.0000	-0.2809	0.0149
LNITRS(-2)	Nil	Nil	Nil	Nil	-0.2815	0.0840	Nil	Nil
LNDPCS	-3.4161	0.0595	1.8948	0.0030	0.5120	0.0384	Nil	Nil
LNDPCS(-1)	2.8649	0.1100	-1.9810	0.0021	-0.4694	0.0708	0.9352	0.0000
LNDPCS(-2)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
C	14.0238	0.5303	1.5418	0.8320	5.1037	0.0574	-1.1732	0.5465
R <sup>2</sup> (ARDL Selected Model)	0.77 (1,1,0,0)		0.84 (1,0,1,1)		0.77 (2,1,0,1)		0.89(1,1,1,1)	

Model Selection Method: Akaike info criterion (AIC). CV = Coefficient Value. Prob. = Probability

Source: Authors' Computation, 2020.



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The results reported in table 4.4 reveal that in natural log of EDBR equation, only the first lag of EDBR is significant. In the natural log of SSTR equation, the first lag of SSTR, the current and first lag of DCPS are significant; in the natural log of ITRS equation, the first lag of ITRS and current period of DCPS are significant; and lastly, in the natural log of DCPS equations, the current periods of SSTR, and first lag of ITRS and first lag of DCPS are significant. Furthermore, the values of coefficient of determination of the models are 77%, 84%, 77% and 89% for LNEDBR, LNSSTR, LNITRS, and LNDPCS respectively. This means that 84%, 77% and 89% changes found in EDBR can be attributed to changes in SSTR, INTR and DCPS respectively.

**Table 4.5: Result of Cross-Section\_ ID Effect and Date\_ ID Panel Fixed Effects Tests**

Cross-Sectional_ID	1	2	3	4	5					
Effect	8.79	-4.48	4.47	-1.10	-7.68					
Date-ID	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Panel Fixed Effects	-11.52	-10.33	-6.92	6.81	9.38	7.36	9.64	8.91	-4.84	-12.52

Source: Authors' Computation, 2020.

Table 4.5 presents the results of cross-sectional identities on the basis of country. 1, 2, 3, 4, and 5 are codes for Nigerian, Ghana, Sierra-Leone, Liberia and Gambia respectively; being the five English Speaking West African Countries. From the first segment of the result, the nexus between entrepreneurial determinants and ease of doing business in Nigeria is positive at 8.79, Ghana is negative at -4.48, Sierra Leone is positive at 4.47, Liberia is negative at -1.10 and Gambia is negative at -7.68. This suggests that out of the five countries that make up ESWACs, the nexus between entrepreneurial determinants (small and medium enterprises sale tax rate, interest rate spread and domestic credit to private sector of small and medium enterprises) and ease of doing business ranking is positive in Nigeria and Sierra-Leone, but negative in Ghana, Liberia and Gambia. By assessing the yearly panel fixed effects of the nexus between entrepreneurial determinants and ease of doing business in ESWACs, the results show that from 2010 to 2012, 2018 and 2019; SSTR, ITRS and DCPS have negative effects on ease of doing business. However, the determinants have positive joint effects on ease of doing business from 2013 to 2017.

**Table 4.6: Result of ESWACs' Panel-ARDL Fixed and Random Effects, and Hausman (1978) Tests**

Variables	Fixed Effects	Random Effects	Hausman Test	
	Coefficient Values	Coefficient Values	Comparison P-value	Period Random Stat (P-value)
LNSSTR	-5.118457	-5.069595	0.9431	5.612967 (0.1320)
LNITRS	1.377077	0.204613	0.0253	
LNDPCS	2.437666	2.395950	0.9670	

LNEDBR is the independent variable. Hausman  $H_0$ : The random effects are independent of explanatory variables.

Source: An Extract from Panel-ARDL Fixed and Random Effects and Hausman Results Output, 2020.

Table 4.6 presents the results of fixed effects, random effects and Hausman tests. Both fixed and random effects (within and between estimators) results reveal that none of the variables is significant among the three dependent variables (SSTR, ITRS and DCPS). This is supported by the result of the period random statistics, whose p-value is greater than 5%. The result of Hausman test suggests rejection of the null hypothesis – which states that coefficient of the dependent variable correlates with the explanatory variables.

**Table 4.7: Result of ESWACs Pairwise Granger Causality Test**

Lags: 2

Null Hypothesis:	Obs	F-Statistic		Prob.	Nature of Forecast	Decision
		Obs	Prob.			
SSTR does not Granger Cause EDBR	38	0.67011	0.5185		SSTR ≠ EDBR	Zero Direction; Retain $H_0$ from both SSTR&EDBR
EDBR does not Granger Cause SSTR		0.59760	0.5560			
INTR does not Granger Cause EDBR	38	0.20284	0.8174		INTR ≠ EDBR	Zero Direction; Retain $H_0$ from both INTR&EDBR
EDBR does not Granger Cause INTR		2.31114	0.1150			

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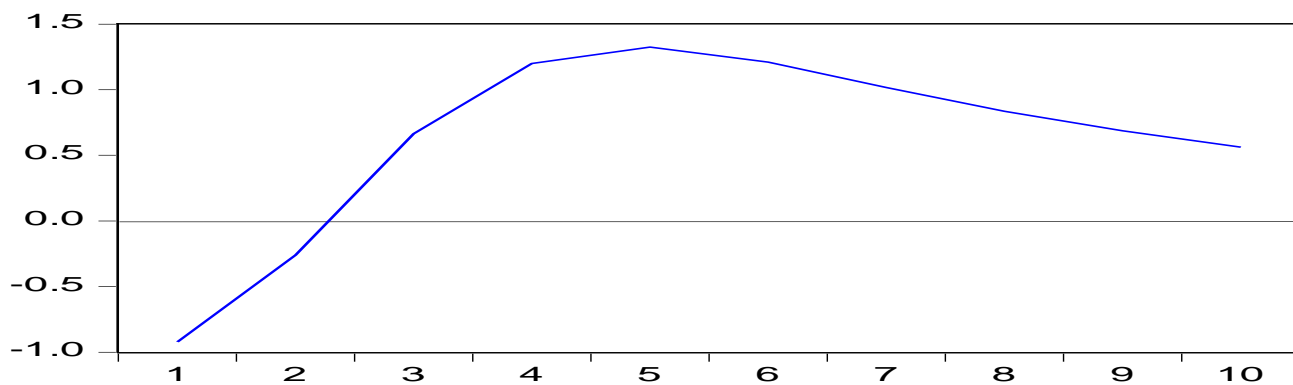
DCPS does not Granger Cause EDBR	38	0.01586	0.9843		
EDBR does not Granger Cause DCPS		0.75983	0.4758	DCPS ≠ EDBR	Zero Direction; Retain H <sub>0</sub> from both DCPS&EDBR

Source: Authors' Computation, 2020.

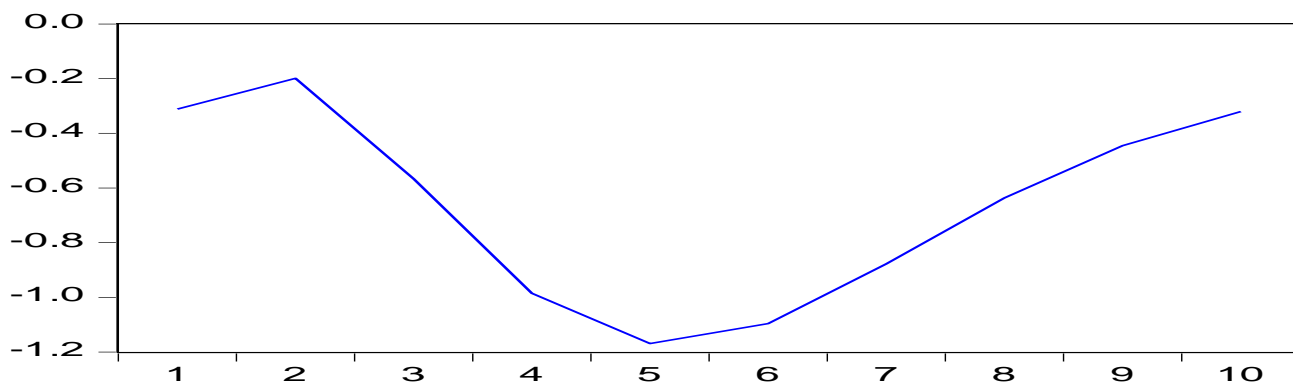
Table 4.7 reports the result of Granger causality test conducted with the four variables in an attempt to empirically establish the possibility of forecasting the nexus between one independent variable (SSTR, INTR and DCPS) and the dependent variable (EDBR). From the result, none of the independent variables forecast ease of doing business. In other words, either the independent variable or the dependent variable can Granger cause each other.

**Response to Cholesky One S.D. Innovations**

**Response of SSTR to EDBR**



**Response of INTR to EDBR**



**Response of DCPS to EDBR**

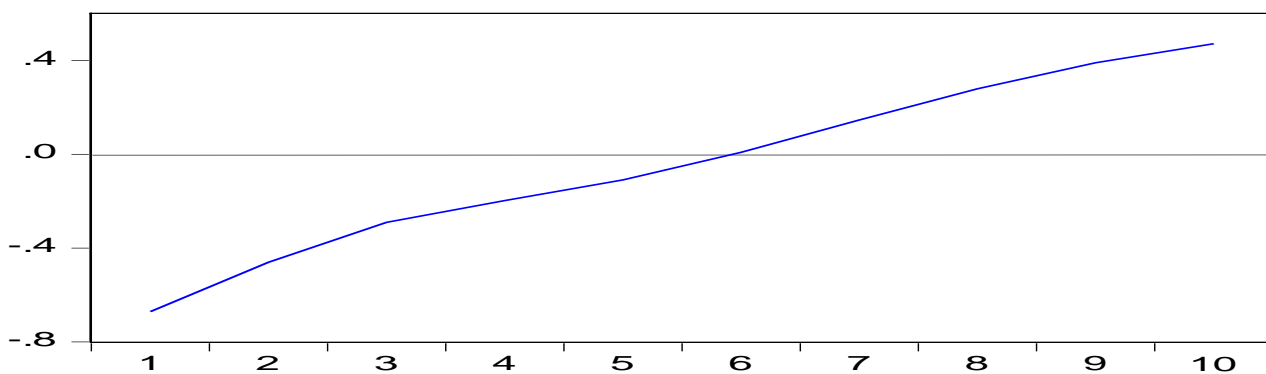


Figure 4.2: Result of Estimated Impulse Responses of, LNSSTR, LNINTR, LNDPCS to Cholesky One S.D. LNEDBR Innovations.

Source: Graphed by the Authors, 2020.

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The impulse responses of Cholesky one standard deviation innovation from LNSSTR, LNINTR and LNDPCS to Cholesky One S.D. LNEBDR innovations are presented in figure 4.2 in three panel graphs. The figure shows the response and a one standard deviation shock or innovation to LNEBDR from LNSSTR, LNINTR, and LNDPCS. In the first graph, there is an initial noticeable negative impact from SSTR to EDBR at the early stages of the time period. At the third stage, it becomes zero and starts increasing from stage four up to stage five. Afterward, it starts to decrease from stage six, but still within the positive region till the end date of the study period. Assessing the impulse response of EDBR from INTR reveals that all through the study period, the responses remain positive. Though at the early stage, the response starts to increase, decrease at stage two down to stage five. However, the responses start to increase from stage six up to the last year of the study. Lastly, the impulse response of DCPS to EDBR shows great noticeable negative response from DCPS to EDBR from the first stage to stage five; it is zero (suggesting no response) at stage six, but starts, from that point to be positive up to stage ten.

### **DISCUSSION OF EMPIRICAL RESULTS**

In order to achieve the research objectives, a variety of investigations were undertaken. The results of the correlation test reveal that SSTR and EDBR are approximately 33% positively but weakly related, INTR and EDBR are 35% negatively and weakly related, as well DCPS and EDBR are 20% negatively and weakly related. This implies that SSTR does not correlate or associate strongly with ease of doing business. In other words, it positively weakens the favourable and friendly business environment that enables business to thrive. Interest rate spread is found with the right correlation direction, which shows if interest rate spreads wider – by way of increase, doing business becomes tougher and the expected ease eases out, thereby leaving business operators to pay higher interest rate before they can have access to finance to do business. Another index for measuring access to finance - DCPS, fails the test of correlation by appearing to have negative correlation with ease of doing business. The implication is that domestic credit facilities to private sector are not enough to business operators. This result is not surprising because business interest rate spread, which is the cost of making credit facilities available and accessible, is equally negatively and weakly correlated with ease of doing business.

The results of Panel-ARDL Bound cointegration test suggest that there is no long run relationship between SSTR, INTR, DCPS and EDBR. It could be discerned from the result that the measures of entrepreneurial determinants used in this study cannot guarantee and sustain favourable and friendly business environment in ESWACs. This corroborates the reason why from 2010 to 2019, none of the countries in the region could be ranked in the top 50. In fact; it was only Ghana that was ranked in the top 60 in 2020. This may be attributed to the negative and weak correlation that exists between INTR, DCPS and ease of doing business. On the account of this result, we proceeded to conduct the dynamic short run ARDL regression in order to assess the lagged value(s) of the dependent variable, the current, and lagged values of the regressors.

According to the results, in EDBR equation, 100% increase in SSTR and INTR respectively increase ease of doing business by 29% and 33% at current period, but have no values for the lagged periods. This means that reduction of SSTR and INTR will see no delay in impacting positively on easing the hurdles and difficulties in doing business in ESWACs. For DCPS, a 100% increase in DCPS reduces ease of doing business by approximately 342% in the current period, but in the first lagged period it increases DCPS by 286%. In other words, it what could be inferred from that is if expansionary fiscal and monetary policies are effectively implemented with specific attention given to DCPS, then it would take about one year to smooth out the economic hurdles and difficulties associated with ease of doing business, and as such ease of doing business could be ranked better in ESWACs.

The findings of our study have gained support from the existing body of literature. For instance, Kiptui (2014) reported that interest rate spread is necessary for the growth and sustenance of Kenya's Banking Sector; Varaidzo and Asrat (2018) argued that there is a significant negative relationship exists between banking efficiency and a positive shock to interest rate spread in South Africa. Similarly, Mohammed (2016) documented that in the short run and long run, positive and significant relationships exist among the real GDP and real domestic saving and domestic credit offered to the private sector in Saudi Arabia. With respect to credit facilities, Bayraktar (2015) argue that countries that have better qualities of getting credit indicators can receive a larger amount of FDI inflows; and paying taxes indicators in Afghanistan, Bangladesh, India, Iran, Pakistan and Sri Lanka have revealed evidence of reasonable FDI inflow (Shahadan, Sarmidi&Faizi, 2014). However, Mohamed, Zubari and Shafiq (2018) argued in the contrary that ease of doing business did not significantly impact on FD; this is on the account that after-tax price increases by exactly the amount of the tax, a result consistent with the standard competitive model (Timothy % Harvey, 1999).

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The results of cross-section (country-specific) reveal that SSTR, INTR and DCPS have positive effect in Nigeria and Sierra Leone – but more in Nigeria than Sierra Leone. This perhaps explains why, throughout the period of study, Nigeria had a better ranking than Sierra Leone in this context. The same variables assert negative effects in Ghana, Liberia and Gambia – with more effects found in Liberia, while Gambia is seen as being worst hit. These two countries, within the time and space of this study, maintained very poor and undesirable rankings above 140<sup>th</sup> position.

A look at the panel fixed effects result reveals that, as ESWACs, entrepreneurial determinants (SSTR, INTR and DCPS) have much highest positive effect on ease of doing business in 2016, 2014, 2017, 2015 and 2013; but negatively much affects ease of doing business in 2019, 2010, 2011, 2012 and 2018. On the basis of this result, it is instructive to suggest the possibility of spill over or feedback effect. This is possible because, within the study period, in Nigeria, SSTR maintained single digit of 5% - which, as an advantage, should have trickled over to or spilled over other countries within the regional space. Again, there is a noticeable relatively low interest rate spread in Nigeria and Sierra Leone; and comparatively increase in DCPS in Nigeria, Ghana and Liberia. This possibly has spilled over on other countries as revealed by the result - consequently, resulting to the balanced effects of entrepreneurial determinants on ease of doing business in ESWACs within the study period. This supports the Hausman test result which suggests the use of fixed result in the analysis.

Furthermore, the result of Granger causality test indicated that none of the entrepreneurial determinants can be used to forecast ease of doing business in ESWACs. This must have come from the fact that both SSTR and INTR maintained two digits rates and DCPS has been insufficient overtime. Thus, this puts forward unfavourable and unfriendly business environments capable of crowding out existing and potential business operators in the area. This study accounts for much more negative impulse response from DCPS to ease of doing business, fairly negative impulse response from SSTR to ease of doing business and noticeable fluctuations in the impulse responses from INTR to ease of doing business. These suggest very strict, burdensome, harsh and complex business regulations and little space to access available finance; and by extension reiterates the fact why none of the ESWACs ranks within the threshold of 1 to 20 as recommended by World Bank.

Arising from the results, it could be said that entrepreneurial determinants affect peoples' pursuit of opportunities in the aspect of being innovative, inventive and creative in the process of designing, launching and running a new business. Going further, it contributes to dwelling the level of entrepreneurship and entrepreneurial spirit; which ought to be a veritable tool that possesses the capacity and willingness to develop, organize and manage business ventures, with a conscious frame of mind, to minimize associated risks and maximize profit. Thus entrepreneurship it losing its unique qualities of being an art that contributes to better national income, economic outlook, higher tax revenue for the government (at the macro level), generation of income for the operators (at the micro level), and higher government spending that would create needed environment and business landscape for businesses to be done with more ease and more seamlessly.

### **5. CONCLUSIONS**

As a potential business operator plans to start a business, he consciously and unconsciously thinks about how to penetrate through the difficulties and hurdles of getting the business underway. This goes to say that how business environment affects a business is really the first factor that defines and shapes the future of the business. In other words, how easy it is to get a business started depends on the entrepreneurial environment, enshrined in macroeconomic environments. Such environment spells out the basis for ranking how easy or difficulty it is to operate a business. Such ranking according World Bank (2020) report has been worrisome, to the extent that none of the countries that make ESWACs could be found in the top 50. This points to the fact that the countries are poor in terms of ease of doing business; moreover, it suggests that their business environment is unfavourable and unfriendly.

In response, we raised and formulated five research questions and hypotheses; and adopted a variety of investigative methods to assess how entrepreneurial determinants impacted on ease of doing business in ESWACs from 2010 to 2019. We relied on ex-post factor research design, used secondary data from OECD (2020) and World Bank (2020), and employed descriptive statistical, correlation matrix, Panel-ARDL, Granger causality, and impulse response methods for the analyses. The results revealed that SSTR is positively and weakly correlated with EDBR, but has negative and weak correlation with INTR and DCPS. Long run relationship was found not to exist between SSTR, INTR and DCPS, and EDBR, but the dynamic short run ARDL regression revealed high levels of coefficient of determination. On country-specific analysis, the cross-sectional result showed SSTR, INTR and DCPS positively impacted on ease of doing business in Nigeria and Sierra Leone; but made negative impact in

## The Impact of Entrepreneurial Determinants on Ease of Doing Business in English-Speaking West African Countries (Eswacs)

Ghana, Liberia and Gambia. Furthermore, it is revealed that zero Granger causality existed among SSTR, INTR, DCPS and EDBR; and mixed impulse responses were revealed from the impulse response results.

Based on the result, we concluded that, within the period of study, entrepreneurial determinants have not been to the advantage of ease of doing business in ESWACs. More so, there is insufficient evidence of convergence between entrepreneurial determinants and ease of doing business, especially as SSTR and INTR continue to remain at double digits and shows signs of increase; while DCPS fails to encourage potential business operators. Consequently, it is recommended that governments of ESWACs should ensure the continuous use of mixed expansionary policies – to reduce tax and interest rate –so as to attract potential business operators; persuade and encourage money deposit banks, through their respective Central Banks, to provide credit facilities for business community; and come up with legal framework that would encourage other financial institutions to play effective role of intermediation between the surplus and deficit units of the economies. This if implemented could alleviate the external financing constraints that can impede access to finance and frustrate efforts towards scaling up ranking in the ease of doing business status of ESWACs.

### REFERENCES

- 1) AfDB (2019). ECOWAS Outlook Report 2019
- 2) Akame, A. J., Ekwelle, M. E., & Njei, G. N. (2016). The impact of business climate on foreign direct investment in the CEMAC Region. *Journal of Economics and Sustainable Development*, 7(22), 66–74.
- 3) Bayraktar, N. (2015). Importance of investment climates for inflows of foreign direct investment in developing countries. *International of Business and Behavioral Studies*, 3(6), 234 – 259.
- 4) Eifert, B. P. (2009). Do regulatory reforms stimulate investment and growth? Evidence from the doing business data, 2003–07 (CGD Working Paper No. 159). Washington.
- 5) Fahmi, M. R. (2012). Analyzing the relationship between tax holiday and foreign direct investment in Indonesia. Retrieved from <http://r-cube.ritsumei.ac.jp/repo/repository/rcube/4740/>
- 6) Greene, W.H. (2008). *Econometric analysis*. 6th Edition, Pearson Prentice Hall, Upper Saddle River.
- 7) Kiptui, M. (2014). Determinants of interest rate spread: some empirical evidence from Kenya's banking sector. *International Business Research*, 7(11), 14 – 23.
- 8) Kofarbai, H. Z., & Bambale, A. J. (2016). Investment climate and foreign direct investment in Nigeria: the mediating role of ease of doing business. *Journal of Energy and Economic Development*, 2(2), 10–39.
- 9) Mahuni, K., & Bonga, W. G. (2017). Nexus between doing business indicators and foreign direct investment for Zimbabwe: a time series analysis. *Journal of Economics and Finance*, 2(2), 1–8.
- 10) Moges, A., Ebero, E., & Begum, M. (2016). The desirability of doing business and flow of foreign direct investment nexus: the case of Ethiopia. *International Research Journal of Engineering and Technology*, 3(5), 2049–2057.
- 11) Mohammed, A. A. (2016). The impact of savings and domestic credit to the private sector on economic growth in Saudi Arabia. *Asian Research Journal of Business Management*, 1(4), 2321-9246.
- 12) Mohamed, T. H., Zubari, H. & Sumaiya, Shafiq (2018). Ease of doing business and its impact on inward FDI. *International Journal of Business and Social Science*, 2(2), 184 – 199. DOI: 10.32455/ijmbe.v1i1.52
- 13) Morris, R. & Aziz, A. (2011). Ease of doing business and FDI inflow to Sub-Saharan Africa and Asian countries. *An International Journal of Cross Cultural Management*, 5(18), 400-411.
- 14) Muhammad, A. H. (2012). Empirical analysis of interest rate spread in Nigeria. *The International Journal of Interdisciplinary Social Sciences: Annual Review*; 6(11), 1 -17 DOI: 10.18848/1833-1882/CGP/v06i11/52180
- 15) Nnadozie, E., & Njuguna, E. (2011). Investment climate and foreign direct investment in Africa. In *African Economic Conference*, Johannesburg.
- 16) Oduwole, O. (2020). CAMA reduces regulatory burden on SMES.
- 17) Olival, A. (2012). The influence of doing business' institutional variables in foreign direct investment. [http://www.gee.gov.pt/RePEc/WorkingPapers/GEE\\_PAPERS\\_48.pdf](http://www.gee.gov.pt/RePEc/WorkingPapers/GEE_PAPERS_48.pdf) First
- 18) Organization for Economic Co-operation and Development (OECD), 2020
- 19) Pesaran, M. H. & Shin, Y. (1999). An autoregressive distributed lag modeling approach to cointegration analysis, In: Strom, S., Holly, A., Diamond, P. (Eds.), *Centennial Volume of Rangar Frisch*, Cambridge University Press, Cambridge, (1999).

## **The Impact of Entrepreneurial Determinants on Ease of Doing Business in English-Speaking West African Countries (Eswacs)**

- 20) Pesaran, M. H., Smith, R. J. & Shin, Y. (2001). Bounds testing approaches to the analysis of Level relationships. *Journal of Applied Econometrics*, 16, (2001), 289-326.
- 21) Priya, G. T. (2018). An empirical analysis on consumer perception towards product organized. *International Journal in Management & Social Science*, 6(178), 2321-1784.
- 22) Shahadan, F., Sarmidi, T., & Faizi, F. J. (2014). Relationships between doing business indexes and FDI net inflows: Empirical evidence from six Asian Countries (Afghanistan, Bangladesh, India, Iran, Pakistan and Sri Lanka). In *Prosiding Persidangan Kebangsaan Ekonomi Malaysia ke-9*
- 23) Singh, G. (2015). Relationship between doing business index and foreign direct investment. In *International Conference on Ease of Doing Business: Contemporary Issues, Challenges and Future Scope*. Ahmedabad.
- 24) Timothy, J. B. & Harvey S. R. (1999). Sales taxes and prices: an empirical analysis. *National Tax Journal*, 52(2), 157 – 178. <https://www.jstor.org/stable/41789387>
- 25) The Friedrich Naumann Foundation. (2017). 3 reasons why ease of doing business in a country is Important. Retrieved from <https://asia.fnst.org/content/3-reasons-why-ease-doing-business-country-important>.
- 26) Tunde, K. (2020). © AFSIC 2021 – Investing in Africa 2020.
- 27) Varaidzo, B. S. & Asrat, T. C. N. (2018). The impact of interest rate spread on the banking system efficiency in South Africa. *Journal of Cogent Economics and Finance*, <https://doi.org/10.1080/23322039.2018.1546417>.
- 28) World Bank (2020). Trading for development in the age of global value Chains. *World Development Quarterly Report*.
- 29) Zhang, P. & Benjamin, R. I. (2007). Understanding information related fields: A conceptual framework. *Journal of the American Society for Information Science and Technology Research Article*, 4,(23), 112 – 134. <https://doi.org/10.1002/asi.20660>