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Education and Economic Growth in the Economic Community of West African States (ECOWAS)

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Abstract: The declining level of economic growth in the Economic Community of West African States (ECOWAS) has been attributed to the poor level of educational development in the bloc. Consequently, this study aims to assess the effect of primary, secondary and tertiary educational development on economic growth in the ECOWAS bloc. The study adopted an extended literature review/ desktop research methodology to address three research questions. Findings based on the extended literature review indicated negative and insignificant relationships between primary educational development and economic growth in the ECOWAS bloc. Secondly, findings also established largely positive relationships between secondary educational development and economic growth in the bloc. Lastly, the relationship between tertiary educational development and economic growth was largely mixed in the ECOWAS bloc. The three specific conclusions were, therefore, validated by both the institutional fitness theory and the new theory of growth. Consequently, to improve the contributions of primary, secondary and tertiary educational development to economic growth in the ECOWAS bloc, the present study recommends the promotion of enhanced social programs, integration of existing policies and creation of societal culture executed within a sound institutional framework, reduction in unemployment, regional disparities, defining the active role of non-governmental organizations (NGOs) and other independent institutions, as well as even distribution of political and financial power, especially in Nigeria, the largest country in the bloc.

Keywords: *Primary Education, Secondary Education, Tertiary Education, Economic Growth, ECOWAS.*

1. Introduction

The positive influence of education on economic growth in many developing countries has been largely debated in the literature (Okrah et al., 2020; Cleeve, 2019; Tsai, 2016; Ajayi, 2015). Measured in terms of gross domestic product (GDP), economic growth can simply be defined as an increase in goods and services arising from a country's productive capacity and is usually compared from one period of time to another (Awolusi, 2021; Onuonga, 2020). Economic growth is, therefore, an increase in national income and national output. If properly managed, an increasing growth may lead to the provision of good infrastructural facilities, education, health and general better well-being for the citizens. On the other hand, education can be defined as the process of facilitating learning or gaining knowledge, values, skills, habits and beliefs (Ajegbelen, 2016; Benade, 2015). This process can be through formal, non-formal and informal (Hickel & Kallis, 2020). Consequent to the above definitions, the important role of education in improving productive capacities, and by extension economic growth, can never be overemphasized. Education is often said to be related to higher productivity of workers, with the attendant increase in economic growth, but is, in turn, influenced and induced by Economic Growth (Awolusi & Jayakody, 2021; Cleeve, 2019). When a society is educated, average income increases, productivity increases, and unemployment decrease, hence, improving social stability and economic growth as a whole (Tsai, 2016).

The Economic Community of West African States (ECOWAS) is made up of fifteen (15) members (after the withdrawal of Mauritania from the bloc in December 2000), namely, Benin, Burkina Faso, Cabo Verde, Cote d'Ivoire, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo. ECOWAS Treaty is therefore a multilateral agreement signed by all member states. ECOWAS's headquarter is located in Abuja, Nigeria. The state goal of ECOWAS is to achieve collective self-sufficiency for its member states by creating a single large trading bloc of full economic and trading union (Onuonga, 2020). The ECOWAS Protocol on the Free Movement of People and Goods ensures free mobility of the citizens of member states. The declining level of economic growth in the Economic Community of West African States (ECOWAS) has been attributed to the poor level of educational development, in the context of educational efficiency, output, outcome and participation, in the region (Ajegbelen, 2016; Anyanwu & Yameogo, 2015). In recognition of the above problem, few studies have tried to solve this problem but achieved mixed results. Specifically, Lin's (2016), Okrah et al.'s (2020) and Ajayi's (2015) studies focused on the influence of different

levels of education, namely primary, secondary and tertiary educational development, on economic growth in ECOWAS, Ghana and Nigeria respectively.

Arising from the mixed results, many previous studies (Anyanwu & Yameogo, 2015; Chakrabarti, 2018: 21). However, posit a holistic study that will incorporate the three levels of educational development (namely, primary, secondary and tertiary levels) using a novel economic growth model in the perspectives of the four (4) dimensions of educational development, namely, efficiency, output, outcome and participation. Consequently, the present study aimed at assessing the effect of education on economic growth in the ECOWAS bloc. The above objective was based on an extended literature review on all three (3) levels of educational development, namely, primary, secondary, and tertiary. To comprehensively study the influence of education on economic growth, the following specific objectives are contrived:

- To investigate the influence of primary education on economic growth in the Economic Community of West African States;
- To examine the effect of secondary education on economic growth in the Economic Community of West African States, and
- To analyze the effect of tertiary education on economic growth in the Economic Community of West African States.

The Central Research Question Can be Formulated as Follows: What educational policy options are implied by the relationship between education (viewed from various levels of education) and economic growth to be fair to individual countries in ECOWAS? Specifically, the formulation of policies would require finding answers to the following specific questions: 1. What is the relationship between primary education and economic growth in the ECOWAS? 2. What is the relationship between secondary education and economic growth in ECOWAS? 3. What is the relationship between tertiary education and economic growth in ECOWAS? The above questions were answered by an extended literature review and critique. The three questions were analyzed and the evidence from the study guided the proposed policy options and recommendations that, if implemented, can lead ECOWAS to pursue growth in a manner that brings about improved educational development to every member making up the bloc. In line with the overall argument of the dissertation, the sub-questions underlying the study were based on the following arguments in the literature (Lin, 2016; Okrah et al., 2020; Ajayi, 2015): that primary educational development has the potential to improve economic growth in individual ECOWAS countries; 2) that secondary educational development has the potential of improving economic growth in individual ECOWAS countries, and 3).

That tertiary educational development in the ECOWAS countries could lead to improved economic growth in the bloc. The present study, therefore, serves as a strategic tripod of the nexus between the three levels of education (primary, secondary and tertiary) and economic growth in the ECOWAS bloc (Phong, 2019). The rationale for the present study is also to solve the aforementioned problem and also to fill related gaps raised in the literature (Lin, 2016; Ajayi, 2015). In a deviation from previous studies, the present study, therefore, seems to provide evidence that could serve as a basis for alternative policy options. Also, another novelty of the present study is the aggregated analysis of the nexus between educational development based on the dictates of institutional economics (theory), by looking at the three important levels of educational development, namely primary, secondary and tertiary in the ECOWAS bloc. Specifically, contrary to most literature on the topic, the study critiqued the inability of previous studies to correct for cross-sectional dependence, as well as addressed endogeneity issues in both linear and non-linear frameworks (Phong, 2019; Lin, 2016). The output of this study is therefore expected to be useful to policymakers in the ECOWAS countries in estimating the achievement of bloc educational development goals, as well as the goal of promoting sustainable economic growth of members (Okrah et al., 2020; Ajayi, 2015).

2. Review of Related Literature

Conceptual Review: A conceptual framework is the deliberate adoption of a premeditated concept to investigate expected relationships between variables (in this case, education and economic growth in the ECOWAS) based on existing theories and models (Fadila & Olure-Bank, 2019; Lin, 2016). However, much of the existing literature does not agree on the conceptual framework and constructs that should be used to explain the relationships between educational development and economic growth (Onuonga, 2020;

Błazejowski et al., 2019). That notwithstanding, the conceptual framework for this study is based on the nexus between educational development and economic growth in the ECOWAS countries (Gokmen et al., 2020). The reasons why existing models of economic growth and education are inadequate in explaining greater changes in the level of economic growth and educational development.

The ECOWAS countries could be traced to the approach toward understanding the relevant concepts. Namely, "economic growth" and "education," hence, a need for an accurate understanding of the various concepts. Measured in terms of gross domestic product (GDP), economic growth can simply be defined as an increase in goods and services arising from a country's productive capacity and is usually compared from one period of time to another (Onuonga, 2020). Economic growth is, therefore, an increase in national income and national output. On the other hand, education can be defined as the process of facilitating learning or gaining knowledge, values, skills, habits and beliefs (Daramola & Awolusi, 2021; Fariala & Awolusi, 2021). This process can be through formal, non-formal and informal (Hickel & Kallis, 2020). Consequently, if properly managed, an increasing educational development at primary, secondary, and tertiary levels may lead to a general improvement in economic growth in both developing and developed economies (Gokmen et al., 2020; Błazejowski et al., 2019).

Theoretical Framework: Similar to previous studies, a mixture of varied economic growth and educational theories and models are designed to address the complex relationships between education and economic growth in the ECOWAS bloc (Okrah et al., 2020; Ajayi, 2015). Thus, our adopted theoretical framework is built on the two common theories of economic growth-educational development nexus, namely, institutional fitness theory and the new theory of economic growth (Lin, 2016; Okrah et al., 2020; Ajayi, 2015). The institutional fitness theory, as suggested by Wilhelms (1998), formed an important part of estimating the influence of education on economic growth. Institutional fitness theory, therefore, posits a proper fit in all government institutional development efforts, namely rule of law, social equity and wealth distribution, educational institutions, government policies and civil authorities to achieve increased economic growth (Błazejowski et al., 2019). The link between educational development and economic growth in the ECOWAS countries can be further explained by the institutional fitness theory, which suggests that improved economic growth is determined more by institutional variables (Gokmen et al., 2020).

The presupposition is that government policies on education should be executed within a sound institutional framework for the country to achieve the desired improvements in economic growth (Fofuh & Awolusi, 2021; Wilhelms, 1998). Consequently, national institutions like educational institutions, markets, socio-cultural systems, and government, must be active and efficient in the process of transmitting various government policies on education to tangible derivatives. This enhanced capacity of institutions is termed institutional fitness (Onuonga, 2020; Wilhelms, 1998). Supporting the above linkages between educational development and economic growth, many studies on ECOWAS (Alege & Ogundipe, 2014; Adamu, 2013; Fadila & Olure-Bank, 2019) also attributed the present threats to economic growth in the bloc to inefficient government institutions. Specifically, Adamu (2013) and Fadila and Olure-Bank (2019) assert that attaining sustainable economic growth in the ECOWAS countries might be a mirage without a proper nexus between educational development, economic growth and sound government institutional variables.

For example, many studies often criticize the notion that corruption in the educational sector is caused simply by failing institutions (Onuonga, 2020, Lin, 2016; Ajayi, 2015). Many corrupt countries often experience a decline in the quality of education because those who are corrupt use the 'institutions' to perpetuate their corrupt practices in the educational sector (Kanneh & Awolusi, 2021; Fadila and Olure-Bank, 2019). On the other hand, the new theory of growth linked the attainment of economic growth in several developing countries (similar to ECOWAS) to the capacity of the host country to implement and adopt technological developments and innovations in education from developed economies (Lin, 2016; Ajayi, 2015). This can be made possible in the ECOWAS bloc due to its penchants for the adoption and implementation of new technology and innovations at all levels of educational development (Okrah et al., 2020; Ajayi, 2015). The new growth theories, therefore, strategically positioned many ECOWAS countries in a way to better catch up with developed countries given the presence of abundant labor stocks with the required skills to either develop or adopt new foreign educational policies (Alege & Ogundipe, 2014; Adamu, 2013).

Empirical Review: Relationships Between Education and Economic Growth: Many studies have investigated the relationships between education and economic growth in many developing and developed economies but achieved mixed results (Reza & Widodo, 2013; Babatunde & Adefabi, 2015; Dumciuviene, 2015; Alege & Ogundipe, 2014; Adamu, 2013; Fadila & Olure-Bank, 2019; Lin, 2016; Okrah et al., 2020; Chakrabarti, 2018; Lin, 2016; Ajayi, 2015). Specifically, Gaspar et al. (2017), Dumciuviene (2015), Ayres et al. (2007) and Reza and Widodo (2013) are some of the previous studies on the nexus between education and economic growth in developed and emerging countries of Europe and Asia. For example, Ayres et al.'s (2007) study examined the role of education on continued growth in many European economies. The paper identified improved tertiary education as a potential means of increasing energy efficiency and usage for continued long-term economic growth. However, the study aimed at challenging the neoclassical growth theory that assumed that growth is automatic, cost-free, and inevitable. Similarly, Gaspar et al. (2017) examine the nexus between government expenditure on educational development and economic growth using a panel of annual data sets of 20 European countries from 1995–2014. The findings of the study rely on traditional economic growth rather than on the Index of Sustainable Economic Welfare (ISEW). Findings from the study observed a new negative feedback hypothesis for ISEW (the alternative measure of economic growth) but maintained a conservative hypothesis for the nexus between economic growth and educational development.

The study, therefore, concluded that policies focused on educational development might find it difficult to improve the much-desired economic growth due to wrong interpretations of the economic growth approach (using GDP) by policymakers in their quest for the much-desired increased economic growth. Similarly, notable studies on the relationship between educational development and economic growth in the ECOWAS bloc are Lin (2016), Okrah et al. (2020), Ajayi (2015), Alege and Ogundipe (2014), Adamu (2013) and Fadila and Olure-Bank (2019). Lin's (2016) study assessed the nexus between primary education and economic growth in the ECOWAS region. However, the evaluation of Lin's (2016) study depicts mixed results. Specifically, the study observed an insignificant relationship between economic growth and government expenditure on primary schools in the ECOWAS countries during the study period. However, the influence of the total number of graduates from primary education (output) on economic growth was negative, while the effect of research and development on economic growth was positive and significant. The mixed results may not be unconnected with poor fiscal and monetary policies adopted within the ECOWAS region during the study period (Okrah et al., 2020; Ajayi, 2015). Contrary to Lin's (2016) study, similar studies by Okrah et al. (2020) and Ajayi (2015) observed positive relationships between economic growth and government spending on education in both Ghana and Nigeria respectively.

The conflicting results in previous studies have been largely attributed to the various measures and theoretical conceptualization of educational development and growth variables (Cleeve, 2019; Tsai, 2016). For example, Lin's (2016) study assessed the influence of Primary educational development (proxied by total government expenditure on primary education) on economic growth in ECOWAS, using an econometric data set from 1980 to 2014. Notwithstanding the econometrical deficiencies, the main conclusion in Lin's (2016) study depicts the insignificance relationship between economic growth and government expenditure on primary schooling in the ECOWAS region. The above conclusion depicts the inefficiency of government expenditure in bringing the much-desired economic growth in the bloc. Also, estimates from the various robustness checks justify the conclusion of the study. The study, therefore, recommends improvement and better coordination amongst the three levels of education, namely, primary, secondary and tertiary education in any growth model. The conclusion also presents accurate and balanced linkages between the research questions, hypotheses and various recommendations. However, the contradictory findings in many of the aforementioned literature could be attributed to weak methodological and theoretical conceptualization. For example, Lin's (2016) study observed mixed results between government expenditure on primary educational variables.

Economic growth in the fifteen (15) ECOWAS countries is due largely to the low data sets and poor explanatory estimates (Cleeve, 2019). Furthermore, the small data sets and weak econometrical analysis in many of the aforementioned studies seem to limit the capacity to generalize the contrived conclusions and recommendations (Okrah et al., 2020; Ajayi, 2015). For comprehensive coverage of many identified linkages between educational development and economic growth in the ECOWAS countries, this dissertation has been

positioned to fill any identified gaps in the literature: First, understanding the knowledge of how educational development would affect the economic growth of individual countries in ECOWAS is important in solving the declining levels of educational development within the bloc (Fadila & Olure-Bank, 2019; Lin, 2016). Also, comparing the three levels of educational development (primary, secondary and tertiary) with economic growth in all the 15 ECOWAS countries, as a bloc, is important as it provides evidence that could serve as a basis for alternative policy options, a gap in literature positioned by previous studies (Onuonga, 2020; Błazejowski et al., 2019). Although empirical studies on the education-economic growth nexus are on the increase, many of the studies have mainly focused on a single country (Babatunde & Adefabi, 2015; Lin, 2016).

Developed (Gaspar et al., 2017; Ayres et al., 2007) and emerging economies analysis (Reza & Widodo, 2013; Dumciuviene, 2015). According to Babatunde and Adefabi (2015) and Lin (2016), there seem to be few studies concentrating on a comparative study on the influence of education on economic growth within a group of developing economies like ECOWAS. Also, continuously evaluating the process of economic change has been seen as an essential precondition to improving economic growth (Onuonga, 2020). Again, we all live in a world that is characterized by dynamic economic change, while the theories we use to understand the present world are still largely static, with little emphasis on the role of institutions and government (Błazejowski et al., 2019). The adoption of institutional fitness theory, in this study, is also a veritable means of accounting for the array of heterogeneous variables that are usually involved in the economic growth process, by giving more significance to institutions, over both the entire economy and firms (Fadila & Olure-Bank, 2019). In a deviation from previous studies that used singular measure of educational development, part of the novelty of the present study is the aggregated analysis of the nexus between educational development based on the dictates of institutional economics (theory), by looking at the three important levels of educational development (namely primary, secondary and tertiary) in the ECOWAS bloc (Onuonga, 2020; Błazejowski et al., 2019).

3. Methodology

The methodology is one of the three elements of a paradigm that researchers either implicitly or explicitly work within (Awolusi & Mbonigaba, 2020; Chudik et al., 2015). The other elements of a paradigm include ontology and epistemology (Chudik & Pesaran, 2015). Although research methodology is an integral part of conducting an empirical study, however, the present study adopted an extended literature review/ desktop research methodology since it addressed specific research objectives and questions to guide the study (Menon, 2017). Consequently, the present extended literature review was conducted systematically. First, the study described its scope, limiting it to the influence of educational (primary, secondary and tertiary) development on economic growth. Consequently, the study described the wider topic of education and economic growth nexus literature and reached the more specific topic of the influence of primary, secondary and tertiary educational development on economic growth in developed, developing and ECOWAS countries respectively. The fifteen (15) ECOWAS countries are Benin, Burkina Faso, Cabo Verde, Cote d'Ivoire, the Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo. Though, since a research design forms a critical connection between theory and arguments that inform the research study to the empirical data that are collected and analyzed, the adopted research design is deemed appropriate because our focus is on measurement (of concepts, variables, and building relationships).

Establishing causality (between education and economic growth); however, generalizations of our findings and replicability may be limited (Awolusi & Mbonigaba, 2020). Lastly, an extended literature review/ desktop research design can easily facilitate the comparison of groups, like the ECOWAS countries, and provide insight into a breadth of experiences (Lamar & Awolusi, 2021; Olayisade & Awolusi, 2021). The study is therefore based on a deterministic philosophy, where causes are deemed to determine outcomes or effects (Creswell, 2014). Consequently, this study was mostly aimed at assessing and analyzing previous literature on the effect of independent variables (education) on the dependent variable (economic growth) in the ECOWAS bloc. This aim was in line with similar stated research questions and hypotheses, intending to ultimately draw upon a few theoretical frameworks from the social sciences (Mosteanu, 2019). To assess the influence of educational development variables (efficiency, output, outcome and participation) in primary, secondary and tertiary institutions on economic growth (Gross domestic products) in the ECOWAS bloc, the study adopted an

extended literature review/ desktop research design. The study used three major databases to search the literature on economic growth and education. These are; the Google scholar, Inderscience and Proquest databases. The search keywords and the results obtained from each database are shown in table 1.

Table 1: Number of Total and Relevant Literature in Each Database

Keywords and Strings	Google Scholar Database		Inderscience Database		ProQuest Database	
	Total	Relevant	Total	Relevant	Total	Relevant
"Economic growth" and "Primary Education"	21	2	35	3	0	0
"Economic growth" and "Secondary Education"	21	3	30	4	10	2
"Economic growth" and "Tertiary education"	15	4	17	2	8	1
"Economic growth" and "Educational/ Human Capital development" Theories	19	2	15	1	5	1

However, the search was majorly limited to journal articles between the years 2015 and 2020. For each search result, the present study reviewed the title and abstracts of the respective articles to select the major ones that are capable of contributing to the overall three research questions/objectives of the paper. The study focused on finding articles on the nexus between the three levels of educational development (primary, secondary and tertiary) and economic growth in the ECOWAS bloc. Also, reading that has an empirical research focus in top-rated Journals, like SCOPUS, Inderscience publishers, Emerald, and Sage publications were majorly selected. Reading the publisher's blurb at the back or inside sleeve for an overview of the content and checking the contents page for relevant chapters in a specific Journal's edition also formed part of the selection process. I also looked up references to each journal article to select specific methodologies in the literature related to education and economic growth in ECOWAS countries. Lastly, I made sure that all literature is relevant and adaptable to my unit of analysis (ECOWAS). However, the major issues I encountered during the process of selecting and formulating the research design revolved around the decision about the purpose of the study (exploratory, descriptive, hypothesis testing), scope of the study and data availability (Tsai, 2016; Usman & Ibrahim, 2017). However, the study early became aware that we would have to infer these nexuses from the reviewed articles.

Overall, to develop our analysis in the present study, the whole analysis is approached from a project network perspective (Holmen & Pedersen, 2003), and then grouped according to the respective effect of educational development on economic growth that we have subtracted from the sample of articles. All research involving human subjects should be conducted per four basic ethical principles, namely respect for persons, beneficence, non-maleficence, and justice (Tsai, 2016; Usman & Ibrahim, 2017). It is usually assumed that these principles guide the conscientious preparation of projects for scientific studies. In practice, these ethical principles mean that as a researcher, I need to: obtain informed consent (voluntary informed consent) from potential research participants, minimize the risk of harm to participants and avoid deception, protect their anonymity and confidentiality, avoid using deceptive practices; and give participants the right to freely participate or withdraw from the survey (Pelinescu, 2015; Usman & Ibrahim, 2017). However, the present study is purely secondary research (extended literature review/ Desktop Research) and does not involve human subjects. That notwithstanding, the following ethical principles of typical secondary/ desktop research were followed: all reviewed literature followed the above-mentioned ethical principles. Also, the research reported in the project, except where otherwise indicated, was deemed to be my original research and has not been submitted for any degree or examination at any other university.

Secondly, I ensured that the project does not contain other data, pictures, graphs, or other information unless specifically acknowledged as being sourced from other persons. Thirdly, I ensured that the project does not contain other writing unless specifically acknowledged as being sourced from other researchers. However, where other written sources have been quoted, then, their words have been re-written, but the general information attributed to them has been referenced; and where their exact words have been used, their

writing has been placed inside quotation marks and referenced (Usman & Ibrahim, 2017). Furthermore, I ensured that the project does not contain text, graphics, or tables copied and pasted from the internet unless specifically acknowledged and the source is detailed in the project and the references sections. Also, since the study's evaluation of all literature was limited to the paper's information, there was no need to contact the respective authors for further details (Wheeler & Mody, 2018). Developing my methodology, therefore, involves studying the research methods used in major extended literature reviews in education economics and the theories or principles that underpin them, to choose the approach that best matches my questions/ objectives (Tsai, 2016). Furthermore, in the methodology chapter, the following criteria were adopted in the selection for or exclusion of past research: the study majorly reviewed readings that are recent, especially the 2015 to 2020 literature. This was done by checking the date of publication to know if the information is up-to-date.

4. Results and Discussion of Findings

Education and Economic Growth: We begin exploring management literature on the nexus between economic growth and educational developments at the three strategic levels, namely, primary, secondary and tertiary. The aim is to clarify how the literature differentiates, analyzed and enumerates the specific relationships between the two concepts. In many of the literature reviewed, there is indeed a distinction between education and economic growth; nevertheless, out of the 21 articles reviewed; only Błazejowski et al. (2019) and Onuonga (2020) provide a clear definition of the two concepts. In general, most of the authors refer to the two concepts but they do not clearly define them (Okrah et al., 2020; Ajayi, 2015). The reasons for the blurred definition of the two concepts also contribute to why existing models of economic growth and education are inadequate in explaining greater changes in the level of economic growth and educational development in many developing countries, hence, a need for an accurate understanding of the various concepts (Fadila & Olure-Bank, 2019; Lin, 2016; Onuonga, 2020). Measured in terms of gross domestic product (GDP), economic growth can simply be defined as an increase in goods and services arising from a country's productive capacity and is usually compared from one period of time to another (Onuonga, 2020).

Economic growth is, therefore, an increase in national income and national output. On the other hand, education can be defined as the process of productive capacity (Błazejowski et al., 2019). This process can be through formal, non-formal and informal (Hickel & Kallis, 2020). From the above definitions, the present study posits that economic growth is a holistic concept of improved national income and national output that can be achieved through enhanced productive capacity through formal, non-formal and informal educational development at all levels. However, previous studies often argue that little attention has been given to a holistic study of the influence of the three important levels (primary, secondary and tertiary) of educational development on economic growth in many developing countries (Fadila & Olure-Bank, 2019; Lin, 2016; Onuonga, 2020). Therefore, the following questions are answered based on the extensive review of the literature:

- What is the relationship between primary education and economic growth in ECOWAS?
- What is the relationship between secondary education and economic growth in ECOWAS?
- What is the relationship between tertiary education and economic growth in ECOWAS?

Effect of Primary Educational Development on Economic Growth in ECOWAS Bloc: The relationship between primary educational development and economic growth has been largely discussed in the literature (Lin, 2016; Adamu, 2013; Alege & Ogundipe, 2014; Onuonga, 2020; Usman & Ibrahim, 2017; Younsi & Bechtini, 2018). The main focus has been largely on assessing the influence of government total investment in primary education on economic growth. Appendix 1 depicts the major reviewed literature and the corresponding relationships between total government investment in primary education and economic growth. Contrary to the general notion that if properly managed, an increasing educational development at the primary level may lead to a general improvement in economic growth in both developing and developed economies (Gokmen et al., 2020; Błazejowski et al., 2019), the general findings in literature depicts otherwise. Lin's (2016) study assessed the nexus between primary education and economic growth in the ECOWAS region. However, the evaluation of Lin's (2016) study depicts mixed results. Specifically, the study observed an insignificant relationship between economic growth and government expenditure on primary schools in the ECOWAS countries during the study period. The negative and conflicting results in Lin's (2016) study

could be attributed to the various measures and theoretical conceptualization of primary educational development and growth variables (Cleeve, 2019; Tsai, 2016).

For example, Lin's (2016) study assessed the influence of Primary educational development (proxied by total government expenditure on primary education) on economic growth in ECOWAS, using an econometric data set from 1980 to 2014. However, the second measure was based on the influence of the total number of graduates from primary education (output) on economic growth. The mixed results may also be attributed to the poor fiscal and monetary policies adopted within the ECOWAS region during the study period (Okrah et al., 2020; Ajayi, 2015). Additionally, much of the reviewed literature also fails to account for cross-sectional dependence errors in their studies (Onuonga, 2020; Usman & Ibrahim, 2017; Younsi & Bechtini, 2018). Ordinarily, results of the Pesaran CD test on economic growth (ln_GDP) are expected to refute the presence of cross-sectional dependence (Okrah et al., 2020; Ajayi, 2015) in the dependent variable since the test accepts the H0 of cross-section independence (at the 1% level of significance). This is an indication that the respective variables do not possess a high degree of cross-sectional heterogeneity (Jamel & Maktouf, 2017). Furthermore, based on the eight reviewed literature, the link between primary educational development and economic growth in the ECOWAS countries can be further explained by the institutional fitness theory.

This suggests that improved economic growth is determined more by institutional variables (Lin, 2016; Adamu, 2013; Alege & Ogundipe, 2014; Onuonga, 2020; Usman & Ibrahim, 2017; Younsi & Bechtini, 2018). The presupposition is that government policies on education should be executed within a sound institutional framework for the country to achieve the desired improvements in economic growth (Onuonga, 2020; Wilhelms, 1998). Consequently, national institutions like educational institutions, markets, socio-cultural systems, and government, must be active and efficient in the process of transmitting various government policies on education to tangible derivatives (Onuonga, 2020; Wilhelms, 1998). Similar studies on ECOWAS by Adamu (2013) and Fadila and Olure-Bank (2019) also corroborated the present threats to economic growth in the bloc to inefficient government institutions. Specifically, Adamu (2013) and Fadila and Olure-Bank (2019) assert that attaining sustainable economic growth in the ECOWAS countries might be a mirage without a proper nexus between primary educational development, economic growth and sound government institutional variables.

Effect of Secondary Educational Development on Economic Growth in ECOWAS Bloc: The majority of the reviewed literature established a positive relationship between secondary educational development and economic growth in the ECOWAS bloc, as well as other developing and developed economies (Okrah et al., 2020; Alege & Ogundipe, 2014; Fadila & Olure-Bank, 2019; Ajegbelen, 2016; Babatunde & Adefabi, 2015; Tsai, 2016; Akinola & Bokana, 2017; Dumciuviene, 2015; Mosteanu, 2019; Jamel, & Maktouf, 2017; Menon, 2017; Reza and Widodo, 2013). For example, contrary to Lin's (2016) study, similar studies by Okrah et al. (2020) observed positive relationships between economic growth and total government spending on secondary education in Ghana. The positive relationships in many of the reviewed studies were largely attributed to the validation of the new theory of growth which linked the attainment of economic growth in several developing countries (similar to ECOWAS) to the capacity of the host country to implement and adopt technological developments and innovations in education from developed economies (Lin, 2016; Ajayi, 2015).

In a related contrived model by Alege and Ogundipe (2014), secondary educational development seems to contribute to the increasing level of economic growth in the ECOWAS bloc during the study period. Specifically, estimates from both the co-integration test and Toda and Yamamoto causality seem to suggest a positive relationship and effect of secondary educational development on economic growth in the ECOWAS bloc. Similar to previous studies (Adamu, 2013; Fadila & Olure-Bank, 2019). The estimates of the study showed a cointegrated relationship and also that secondary educational development and economic growth move in parallel directions in the long run (Alege & Ogundipe, 2014). The positive relationships between secondary educational development and economic growth in the ECOWAS countries are also supported by other reviewed studies in many emerging and developed countries (Gaspar et al., 2017; Dumciuviene, 2015; Ayres et al., 2007; Reza & Widodo, 2013). Specifically, Ayres et al.'s (2007) study examined the role of education on continued growth in many European economies.

The paper identified improved secondary education as a potential means of increasing energy efficiency and usage for continued long-term economic growth. However, the main findings were aimed at challenging the neoclassical growth theory that assumed that growth is automatic, cost-free, and inevitable (Ayres et al., 2007). Similarly, Gaspar et al. (2017)'s study examines the nexus between government expenditure on secondary educational development and economic growth using a panel of annual data sets of 20 European countries from 1995–2014. Findings from the study observed a new negative feedback hypothesis for ISEW (the alternative measure of economic growth) but maintained a conservative hypothesis for the nexus between economic growth and secondary educational development. The study, therefore, concluded that policies focused on educational development might find it difficult to improve the much-desired economic growth due to wrong interpretations of the economic growth approach by policymakers in their quest for much-desired increased economic growth.

Effect of Tertiary Educational Development on Economic Growth in ECOWAS Bloc: Lastly, the relationships between tertiary educational development and economic growth have been largely mixed in the ECOWAS bloc and many other developed and developing economies (Ajayi, 2015; Adamu, 2013; Nosheen et al., 2019; Błazejowski et al., 2019; Gaspar et al., 2017; Ayres et al., 2007; Javeria et al., 2017). Specifically, contrary to Lin's (2016) study, similar studies by Ajayi (2015) observed positive relationships between economic growth and total government spending on tertiary education in Nigeria, while negative and conflicting results in Adamu's (2013) study could be attributed to the various measures and theoretical conceptualization of tertiary educational development and growth variables (Cleeve, 2019; Tsai, 2016).

Specifically, Alege & Ogundipe's (2014) and Adamu's (2013) study assessed the relationships between tertiary education and economic growth in the ECOWAS countries using annual panel data. The study confirmed a mixed long-run cointegration relationship between tertiary education and economic growth in the bloc countries. While estimates from fixed effects results posit the positive and significant influence of tertiary education on economic growth, the coefficient of its squared term depicts a significant negative effect. However, due to the only bidirectional causal relationships between tertiary educational development and economic growth in the bloc, many studies posit that poor institutional fitness and foreign direct investment in the educational sector may have altered the influence of economic growth on tertiary educational development in the ECOWAS bloc over the years (Fadila & Olure-Bank, 2019). Most importantly, the mixed relationships between tertiary educational development and economic growth in the ECOWAS countries, as well as many developing countries have been largely attributed to the inability to validate the new theory of growth which linked the attainment of economic growth in several developing countries to the capacity of the host country to implement.

Adopt technological developments and innovations in tertiary education from developed economies (Lin, 2016; Ajayi, 2015). However, many studies seem to see future positive relationships between government investment in tertiary education and economic growth in the ECOWAS bloc due to its increasing penchants for the adoption and implementations of new technology and innovations at all levels of educational development (Okrah et al., 2020; Ajayi, 2015). Also, to achieve improved value from government investments in the tertiary educational sector, scholars opine that the new growth theories should be strategically positioned by many ECOWAS countries in a way to better catch up with developed countries given the presence of abundant labor stocks with the required skills to either develop or adopt new foreign educational policies in the bloc (Alege & Ogundipe, 2014; Adamu, 2013). Many studies also advised on different integration orders in all the series for the ECOWAS countries. Consequently, economic growth series may be integrated in the order of null I(0) while tertiary educational development series are integrated in first order I(1) (Breitenbach et al., 2017).

The contradictory findings in many of the aforementioned literature could be attributed to weak methodological and theoretical conceptualization. For example, Lin's (2016) study observed mixed results between government expenditure on primary educational variables and economic growth in the fifteen (15) ECOWAS countries due largely to the low data sets and poor explanatory estimates (Cleeve, 2019). Also, the study failed to account for cross-sectional dependence errors and small sample bias which may invalidate the findings, hence, the need for further studies to address the aforementioned issues. Furthermore, the small data sets and weak econometrical analysis in many of the aforementioned studies seem to limit the capacity

to generalize the contrived conclusions and recommendations (Okrah et al., 2020; Ajayi, 2015). In conclusion, based on the twenty-one (21) critically reviewed literature, the present study, therefore, recommends improvement and better coordination amongst the three levels of education, namely, primary, secondary and tertiary education in any growth model (Nosheen et al., 2019; Błazejowski et al., 2019).

5. Conclusion and Policy Implications

This paper is an extended literature review on the effect of educational development on economic growth in the ECOWAS bloc. The study was motivated by the myriad of mixed and contradicted findings from many stand-alone measures of educational development in the bloc. The above objective is based on an extended literature review on all three (3) levels of educational development, namely, primary, secondary, and tertiary. Consequently, the central research question was formulated as follows: What educational policy options are implied by the relationship between education (viewed from various levels of education) and economic growth to be fair to individual countries in ECOWAS? Specifically, the formulation of policies would require finding answers to the following three specific questions: 1. what is the relationship between primary education and economic growth in the ECOWAS? 2. What is the relationship between secondary education and economic growth in ECOWAS? 3. What is the relationship between tertiary education and economic growth in ECOWAS? The study used three major databases to search the literature on economic growth and education. These are; the Google scholar, Inderscience and Proquest databases. However, the study early became aware that we would have to infer these nexuses from the reviewed articles. Overall, to develop our analysis in the present study, the whole analysis is approached from a project network perspective (Holmen & Pedersen, 2003), and then grouped according to the respective effect of educational development on economic growth that we have subtracted from the sample of articles.

Conclusion: Our findings largely indicate a positive relationship between educational development and economic growth in the ECOWAS bloc. However, based on the three contrived research questions that guided the present study, the following three conclusions are hereby presented: Findings indicated negative and insignificant relationships between primary educational development and economic growth in the ECOWAS bloc. Contrary to the general notion that if properly managed, an increasing educational development at the primary level may lead to a general improvement in economic growth in both developing and developed economies (Gokmen et al., 2020; Błazejowski et al., 2019), the general findings in literature depicts otherwise. The negative and conflicting results in the literature could be attributed to the various measures and theoretical conceptualization of primary educational development and growth variables (Cleeve, 2019; Tsai, 2016). Furthermore, Furthermore, based on the eight reviewed literature, the negative and insignificant relationships between primary educational development and economic growth in the ECOWAS countries were largely explained by the institutional fitness theory.

This suggests that the declining economic growth in the ECOWAS bloc is determined more by poor institutional variables in the primary educational sector (Lin, 2016; Adamu, 2013; Alege & Ogundipe, 2014; Onuonga, 2020; Usman & Ibrahim, 2017; Younsi & Bechtini, 2018). The presupposition is that government policies on primary education were not adequately executed within a sound institutional framework for the bloc to achieve the desired improvements in economic growth (Onuonga, 2020; Wilhelms, 1998). Secondly, based on our findings, the present study concluded the positive relationship between secondary educational development and economic growth in the ECOWAS bloc (Okrah et al., 2020; Alege & Ogundipe, 2014; Fadila & Olure-Bank, 2019). Additionally, the positive relationships between secondary educational development and economic growth in the ECOWAS bloc were largely attributed to the validation of the new theory of growth which linked the attainment of economic growth in the ECOWAS bloc to the capacity of many ECOWAS countries to implement.

Adopt technological developments and innovations in secondary education from developed economies (Lin, 2016; Ajayi, 2015). Our main findings in the ECOWAS countries were also supported by other reviewed studies in many emerging and developed countries (Gaspar et al., 2017; Dumciuviene, 2015; Ayres et al., 2007; Reza & Widodo, 2013). Lastly, the relationship between tertiary educational development and economic growth has been largely mixed in the ECOWAS bloc (Ajayi, 2015; Adamu, 2013; Nosheen et al., 2019). Most importantly, the mixed relationships between tertiary educational development and economic

growth in the ECOWAS countries have been largely attributed to the inability to validate the new theory of growth which linked the attainment of economic growth in the bloc to the capacity of the ECOWAS country to implement and adopt technological developments and innovations in tertiary education from developed economies (Lin, 2016; Ajayi, 2015). The contradictory findings in many of the extended literature reviews could also be attributed to the weak methodological and theoretical conceptualization.

Policy Implication and Recommendations: To improve the contributions of primary educational development to economic growth in the ECOWAS bloc, effort should be geared towards the promotion of enhanced social programs, integration of existing policies and creation of societal culture to support primary educational development in the ECOWAS countries (Lin, 2016; Adamu, 2013; Alege & Ogundipe, 2014). Also, based on our findings that government policies on education should be executed within a sound institutional framework for the ECOWAS countries to achieve the desired improvements in economic growth (Onuonga, 2020; Wilhelms, 1998), consequently, national institutions like educational institutions, markets, socio-cultural systems, and government, must be active and efficient in the process of transmitting various government policies on education to tangible derivatives (Onuonga, 2020; Wilhelms, 1998).

This is on the premise that specific studies on ECOWAS by Adamu (2013) and Fadila and Olure-Bank (2019) firmly corroborated the contrived threats (inefficient government institutions) to economic growth in the bloc. Specifically, Adamu (2013) and Fadila and Olure-Bank (2019) assert that attaining sustainable economic growth in the ECOWAS countries might be a mirage without a proper nexus between primary educational development, economic growth and sound government institutional variables. Fiscal policies in the ECOWAS countries could also be aimed at increasing Foreign Direct Investment (FDI) into the primary education sector, as well as reducing socio-economic inequalities through short-term inequality rates to enhance the quality of output in the sector (Younsi and Bechtini, 2018). Also, strategic adoption of focused liberalization and financial openness policies to attract higher Research and Development (R&D).

Related foreign direct investment is capable of generating spillover effects in the sector (Lin, 2016). Lastly, general policies should focus more on population growth control, radical law reforms and the creation of independent organizations to assist poor people, basic education; speedy poverty alleviation and market development (Lin, 2016; Adamu, 2013; Alege & Ogundipe, 2014). Overall, the impact of the aforementioned recommendations will be beneficial to policymakers in all the ECOWAS countries in estimating the achievement of the bloc's goal of inclusive economic growth and educational development (Lin, 2016). Our findings showed that secondary educational development greatly impacted economic growth in the ECOWAS bloc; consequently, this study posits a more radical policy mix to strengthen the impact of secondary educational development on economic growth in the bloc. Specifically, there may be an urgent need to define the active role of NGOs and other independent institutions in promoting qualitative secondary education at both local and national levels. There may also need to have a national standard for reporting Corporate Social Responsibilities (CSR) by international donor agencies, civil society organizations (CSOs) and corporations in the secondary educational sector (Okrah et al., 2020; Alege & Ogundipe, 2014).

Also, the increasing trends in secondary education drop-out rates in Nigeria, Togo and Gabon require a radical policy mix on population growth control, swift poverty alleviation programs, basic and inclusive secondary education for all citizens (Fadila & Olure-Bank, 2019). In secondary education, content-related coordination for secondary education policy should be encouraged, by designing programs that are capable of integrating learning methods and materials on socioeconomic inequality into an agreed percentage of all classroom curricula in all secondary schools in all countries (Fadila & Olure-Bank, 2019). Policymakers must also guide against wrong interpretations of educational development strategies and economic growth approach (using GDP) since policies focused on educational development might find it difficult to improve the much-desired economic growth (Nosheen et al., 2019). Lastly, our findings also established mixed relationships between tertiary educational development and economic growth in the ECOWAS bloc (Ajayi, 2015; Adamu, 2013; Nosheen et al., 2019). Consequently, to improve the contributions of tertiary educational development to economic growth in the ECOWAS bloc, the present study recommends a reduction in unemployment, regional disparities, as well as uneven distribution of political and financial power, especially in Nigeria (Nosheen et al., 2019).

This is on the premise that it is only through even development strategies and viable interactions between the private sector, general public and government that can engender the formulation of transparent and equitable policies needed for the much-desired sustainable economic growth in the ECOWAS bloc (Ajayi, 2015; Adamu, 2013). Furthermore, strategic validation of the new theory of growth is imperative in the ECOWAS bloc (Okrah et al., 2020). The new theory of growth linked the attainment of economic growth in several developing countries to the capacity of the host country to implement and adopt technological developments and innovations in tertiary education from developed economies (Lin, 2016; Ajayi, 2015). Consequently, investment in tertiary education and economic growth in the ECOWAS bloc must be linked to optimal adoption and implementation of new technology and innovations at all levels of educational development (Okrah et al., 2020; Ajayi, 2015). The new growth theories should, therefore, be strategically positioned by many ECOWAS countries in a way to better catch up with developed countries given the presence of abundant labor stocks with the required skills to either develop or adopt new foreign educational policies in the bloc (Alege & Ogundipe, 2014; Adamu, 2013).

Managerial and Theoretical Contributions/ Implications: Investigating the influence of educational development at both primary, secondary and tertiary levels on economic growth in the ECOWAS bloc have both managerial/ societal and theoretical implications/ contributions. First, the study provides a tool to understand the importance of strategic government's educational investment in the ECOWAS bloc (Ajayi, 2015). In line with a recent gap positioned in the literature and also to aid education and economic growth policy options, the main essence of determining the nexus between economic growth and educational developments in the ECOWAS bloc is to derive educational development criteria for economic growth to be sustainable (Nosheen et al., 2019). Consequently, to the best of the researcher's knowledge, the present study seems to be the first comprehensive study on the nexus between education and economic growth within the ECOWAS bloc to propose specific policy options at the primary, secondary and tertiary educational levels (Okrah et al., 2020; Alege & Ogundipe, 2014). Moreover, due to the strategic importance of ECOWAS countries in enhancing global inclusive educational drive and economic growth, the paucity of comprehensive studies on the above trending issue, in the bloc has been described as a major concern in the literature (Okrah et al., 2020; Younsi & Bechtini, 2018).

Consequently, the present study has been able to provide new empirical evidence concerning the aforementioned relationships. Additionally, in a deviation from previous studies that used a singular measure of educational development, part of the novelty of this paper is the combined analysis of the joint influence of education, at the primary, secondary and tertiary on economic growth in the ECOWAS bloc. Also, many empirical works on the educational development-economic growth nexus are often seen as confusing and contradictory, probably due to the use of singular measures and perspective of the constructs (Okrah et al., 2020; Zha et al., 2019). A generalization of the findings of the present study, an extended literature review, seems to be the major limitation due to the inability to collect and analyze own data on the contrived phenomenon (Younsi & Bechtini, 2018). Poor data collection by relevant government agencies.

As well as the specifications/constructs used to measure both educational developments and economic growth in many of the aforementioned reviewed empirical literature (Younsi & Bechtini, 2018). This is based on the myriad of constructs of conflicting measures used to measure educational development at the primary, secondary and tertiary levels in both developing and developed economies (Okrah et al., 2020). However, the adopted and cross-validation of various estimation techniques in many of the reviewed empirical studies has been adjudged as a deliberate attempt to address any potential ambiguity and endogeneity (Okrah et al., 2020; Alege & Ogundipe, 2014). However, the present study could serve as a foundation for novel comprehensive future studies on the influence of educational developments, at the primary, secondary and tertiary levels on economic growth in many developing countries.

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