

Impact of Education Expenditure on Economic Growth: A Study of West African Monetary Zone Countries

¹Musa Munkaila,
²Abubakar Sadiq Salisu,
³Abdullahi Bilyaminu,
⁴Abdullahi Mohammed
Umar, ⁵Iliya Elisha &
⁶Mohammed Haruna
Ashaka

^{1,2,3&5}Department of General Studies
(Economics Unit), Gombe State
Polytechnic Bajoga

⁴Department of Business
Administration and Management,
Gombe State Polytechnic Bajoga

⁶Department of General Studies
(Glaps Unit), Gombe State
Polytechnic Bajoga

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Abstract

There has been no much attention focused, empirically on the impact of education expenditure on economic growth of west African monetary zone member countries. Therefore, this paper examines the impact of education expenditure on economic growth: A case of west African Monetary Zone Countries from the periods of 2004 to 2018. The variables used are Gross Domestic mm, Product Growth rate, Education expenditure as a percentage of Government expenditure, Gross Fixed Capital Formation a percent of GDP and Regulatory quality. The data were sourced from the World Bank Development Indicator (WDI) and World Governance Indicator (2020). Variables were estimated using Autoregressive Distributed Lag (ARDL) Pool mean Group (PMG) with Correlation Matrix, cross sectional dependence test and Panel Unit root test. The result of the study reveals that education expenditure has positive and statistically significant impact on economic growth in the long run while Capital Formation and Regulatory quality are not statistically significant however, in the short run all the variables are statistically insignificant. Therefore, the paper recommended that West African Monetary Zone Member Countries should increase their budgetary allocation in line with the United Nations Educational, Scientific and Cultural Organisations (UNESCO) minimum benchmark of 26% education share of total budgetary allocation for developing countries.

Corresponding Author:

Musa Munkaila

Background to the Study

Education has been regarded as an influential force in shaping the economy of any nation; this means that education can create either a direct or indirect impact on the economy (Breton, 2013). The direct effect means education equips people with knowledge, predispositions, and skills. Education contributions to the economy are complex where education cannot be simplified as labour skills (Lauder et al. 2018). Instead, education also produces individuals who have possible capacities for innovation and the redirection of development. Here, while education has been valued as an arena of boosting human capital (Karaçor et al. 2017), there is an indirect benefit of education for the economy. People with qualifications could generate economic returns. Expenditure on education is supposed to bring into the economic system the externalities and other indirect effects such as higher education attainment and achievement of children, better health and lower mortality of children, better individual health and lower number of birth which subsequently cause higher productivity in terms of eased earnings, more participation in the labour force i.e. increased labour force; all these coupled with lower population growth and better health of population tend to positively influence higher economic growth (Michaelowa, 2000).

Primarily, education in the West African region, just like other regions in Africa, is funded by the government, which allocates its public education resources based on the country's priorities and needs. While public education spending priorities will vary from country to country, increased investment in education will help to successfully meet key education targets and build a skilled workforce, (Majgaard, and Mingat, 2012).

The challenges facing west African education system is inadequate qualified manpower, inadequate basic infrastructure, overcrowded classrooms, inadequate learning and teaching materials and teacher incompetency. However, the major challenge facing education sector of WAMZ member countries is poor funding, according to World Bank 2020, the percentage of government expenditure allocated to education in Nigeria, Guinea, Sierra Leone, and Liberia are 7.6%, 2.2%, 9.3% and 2.3%. Which is far below the UNESCO minimum benchmark of 26% education share of total budgetary allocation (World Bank 2020). Clearly, this shows that the amount allocated to education sector in these countries is insignificant to enable the sector drive economic growth. This could explain the much talked-about falling standards of education in WAMZ Countries.

From the reviews of the empirical studies conducted in developing countries, it is quite obvious that the relationship between education expenditure and economic growth is debatable. Some concluded that is positive like, (Aluthge et al. 2021; Hashim et al 2021; Kumar and Choudhary 2019; Adewumi and Enebe 2019). In contrast, (Kouton, J. 2018; Abdulmenaf and Mustapha 2015; Gukat and Ogboru, 2017; Saidu and Ibrahim, 2019), concludes the is negative relationship. But a thorough observation would show that the differences from the previous studies could arise from the type of methodology used, lack of harmonised data, the type of variables chosen, type of econometric specification used and other factors. The present study contributes to this debate by further revisiting

robustness of an empirical evidence on the relationship between education expenditure and economic growth of WAMZ member countries.

In addition, unlike previous studies, current study incorporated an institutional variable (regulatory quality) in to the relationship to examine the strength of institutions in promoting private sector investment in education. Thus, the main purpose of this paper is to empirically investigate the impact of education expenditure on economic growth of WAMZ member countries from 2004 to 2018 using Panel ARDL Pool Mean Group (PMG). The rest of the study is structured into four sections. Section two presents literature review, while section three focuses on methodology of the study, Empirical results and conclusion are presented in section four and five, respectively.

Literature Review

Conceptual Literature

Concept of Government Expenditure

Government expenditure refers to the allocated resources handled by the government for its own interest and the nation at large. It can also be referred to as government spending. The resources are distributed in such a way that it reaches the various sectors of the economy like the education sector, health sector, agricultural sector etc. Government expenditure, also known as government or public spending is usually classified into capital and recurrent expenditure (CBN, 2003). According to Edame and Eturoma (2014), government spending is affected by speed growth of the populace, changes in a country's demography, people's taste, rise in technological demand for industrialization, increase in urbanization, increase in currency depreciation overtime etc. On the other hand, education outcomes refer to the objectives of learning upon which higher education programs are built. Government spending can also be defined simply as the knowledge, skills, attitudes, and values that tertiary students will need to achieve success in their various working places, families and communities (Palomba and Banta, 1999).

Concept of Education Outcome

Education outcomes also includes those things that students should know, comprehend and be able to carry out to be an educated person and to meet up with the future demands and the demands of the modern world (Palomba and Banta,1999). It can also be referred to as general education abilities, education goals, competencies, core abilities, core competencies, essential learning outcomes, learning goals, learning objectives, college-wide outcomes, principles of undergraduate learning, and transferable skills of liberal learning etc (Palomba and Banta, 1999).

An Overview of West African Monetary Zone (WAMZ)

West African Monetary Zone (WAMZ) was formally established in the year 2000. The monetary zone countries are Gambia, Ghana, Guinea, Liberia, Nigeria and Sierra Leone. It was expected that the formation of WAMZ would propel the creation of a monetary union alongside a common central bank and a single currency (the eco), meant to replace

the existing national currencies of the six member countries. The desire to fasten the process of the monetary integration of the African sub-region was indicated by the 15-member countries of the ECOWAS in 2000. This crystallised into a 2-phase programme for the creation of a single currency for the region. The idea was that the WAMZ (of the Anglophone West African countries and Guinea) will merge with the existing West African CFA zone franc shared by members of the West African Economic and Monetary Union (WAEMU) to form a formidable monetary union across the whole of West Africa in the future as part of the African Economic Community's six-stage process of achieving a monetary union and a single currency for Africa by 2028 (African Development Bank 2020).

Empirical Literature

Aluthge, Jibir and Abdu (2021), the study investigates the impact of Nigerian government expenditure on economic growth using time series data for the period 1970-2019. The paper employs Autoregressive Distributed Lag (ARDL) model. analysis. The key findings of the study are that capital expenditure has positive and significant impact on economic growth both in the short run and long run while recurrent expenditure does not have significant impact on economic growth both in the short run and long run. Government should also improve the spending patterns of recurrent expenditure through careful reallocation of resources toward productive activities that would enhance human development in the country.

Phuoc, and Mai (2021), estimate the relationship between government expenditure on education on economic growth with empirical evidence in Vietnam for the period 2006 – 2019. The study adopt vector autoregressive (VAR) And granger causality to determine a relationship, the result indicated that there is uni-directional relationship between economic growth and government expenditures on education in Vietnam. Hashim et`al (2021) investigate the relationship between selected macroeconomics variables such as education expenditure in economic growth in Malaysia over the period 1988-2018. The study adopts ordinary least square techniques (OLS). The findings of the study confirm that government expenditure in education and capital formation impact positively in economic growth in Malaysia. Swandaru, (2021). Examine the relationship between public expenditure in the educational sector and the economic growth in Indonesia. Using time series data from 1988 to 2018 and the Cobb-Douglas production function as an economic theory for measurement the Autoregressive Distributed Lag bound tests was used. The results show that there is a positive relationship in long-term and a negative relationship in short-term estimation. The Indonesian government should manage the education system regarding the relationship between education expenditure and economic growth. Mokoena, et al. (2020). Examine nexus between government expenditure and economic growth in South Africa. Using the data of 1961 – 2018 the Granger causality Wald test was used to analyse the causality. the results show that there is no significant causal relationship from either side of economic growth and public expenditure. Policy makers should pay attention on how to channel government expenditure and the gains from economic growth to improve citizens' ability to increase

their productive capital. AbdoulMajid, et. Al. (2020). Study the relationship between health expenditure and education expenditure and economic growth in OPEC countries and Iran from 2004 to 2016 Using the panel data. The panel VAR method has been applied and Granger Causality test to examine the causality relationships between variables. The results show a positive meaningful relationship between oil revenues, total government expenditure, government expenditure for education, government expenditure in health, and economic growth of OPEC countries and Iran. the result of the suggests that there is a practical, mutual relationship between oil revenues and economic growth, total government expenditure and economic growth.

Kumar and Choudhary (2019). Analyse the effect of public spending on education on economic growth of India. Covering the period of 1951-2014. The study applies Augmented Dicky Fuller Unit root and OLS. The results confirm the existence of positive relationship between education spending and economic growth under the period covered. Bako and Baba (2019). Studies the impact of public expenditure on education on economic growth in Nigeria covering the period 2004 – 2014. The study applied vector autoregressive model and granger causality. The findings from the study show that public education expenditure exerts positive and significant impact on economic growth in both short ran and long run. Adewumi and Enebe (2019). The study examines the impact of government education expenditure & health expenditure) on human capital development in West African countries. The research was conducted with variables from 13 countries from 1985-2016. The result obtained shows that increase government education and health expenditure have positive and significant impact on primary and secondary school enrolment. The implication of this is that government of these countries must take adequate measures to ensure proper allocations and utilization of funds to these sectors in order to achieve a meaningful human capital development.

Kouton, (2018). investigate the relationship between Education Expenditure and Economic growth in cote d' voire for the period from 1970 to 2015. ARDL model and bounds testing approach were used as well as the toda and Yamamoto (1995) causality test. The study provides evidence of the existence of a negative and significant long-term effect of government education expenditure on economic growth for the aforementioned period. The study suggests that government policies aiming to invest more in education are important for more production and more economic growth. Abdulmenaf and Mustapha (2015). investigate the relationship between Government education expenditure and economic growth in Macedonia. Spanning from 2005-2015. The study applies multiple regression analysis. The result, found that public spending on education had negative effects on economic growth of Macedonia. Sabal and Wasil (2013), examine the long run relationship between public education expenditure and economic growth of development and developing countries covering the period 1990-2006. The study applies heterogeneous panel data analysis and single-equation approach of panel co-integration. The panel fully modified ordinary least square result reveal that the impact of public education expenditure and economic is greater in the developing countries compare to the developed counter parts, this confirms the growing up effects in developing countries.

Theoretical Review

Wagner's Law of Increasing State Activities (1835-1917)

Adolph Wagner was a German Economist who based his law on historical facts of Germany in 1883. According to him, there was a functional relationship between an economy and the growth of the government activities so that governmental sectors grow faster than the economy.

Wagner says there is relationship between the economic growth and the government spending especially on education and health remains unsettled issue in public economics despite a voluminous and growing literature since seminal work of Wagner in 1883. It is fact an observation on public expenditure in association with economic growth. Wagner clearly observed that there is functional relationship between growth of an economy and the government activities.

He suggested that growth in public expenditure was inevitable for progressive economy because it is directly linked to the economic growth. In summary, Wagner identified three main factors behind the increase in government spending. These are:

- i. Over a period of time, as long as economy matures (example along with growing population, industrialization and urbanization), the economy will move from low economic development to developed economy. There will be need for government play an important role in administrative and protective capacity apart from enhancing social welfare.
- ii. As long as economy expands, government expenditure also expands on various social welfare activities like health, education, infrastructure, recreation facilities, etc.
- iii. The advance of science and technology of a country result in higher government expenditure, it could be demanded of the government to provide several economic services for which private sector will remain indeterminate

In conclusion, the reviewed theory is related to the topic (Wagner's Law of Increasing State Activities (1835-1917)), will be adopted as the theoretical framework under this study. This theory was chosen because it explains the true picture of most developing countries education sectors and growth of their economy, which all the WAMZ member countries are inclusive.

Methodology

Data Source and Measurement

In order to investigate the impact of education expenditure on economic growth of West African Monetary zone (WAMZ) member countries, the study employed annual panel data of five countries among the six WAMZ member countries (Ghana, Gambia, Guinea, Liberia, Nigeria and Sere Leone) for the periods of 2004 to 2018. Liberia was dropped due to data unavailability for some of the variables used in the study of the period under examination. The dependent variable is Y which serves as a proxy of economic growth, education expenditure is the independent variable while Gross Fixed Capital formation

and Regulatory Quality were incorporated as control variables. All the data were sourced from World Bank Development Indicators (WDI2020) except Regulatory Quality That was obtained from World Governance Indicators (WGI2020). (The perception of government's ability to formulate and implement sound policies and regulation for private sector participation and development). It ranges from -2.5(weak) to 2.5(strong). The Data sources, measurement and expected signs of the variables are summarized in the table below:

Table 1: Variables Measurement and a Priori Expectations

Variable	Description	Source	Expected sign
GDPGR(Y)	Gross Domestic Product growth rate (annual percentage)	WBDI2020	
EDX	Education Expenditure (percent of total Government expenditure)	WDI2020	Positive
CPF	Gross fixed Capital formation (percent of GDP)	WDI2020	Positive
RQY	Regulatory quality (-2.5 weak to 2.5 strong).	WGI2020	Positive

Source: Author's computation

Cross Sectional Dependency and Panel Unit Root Tests

In order to avoid getting spurious results and making wrong conclusion about the relationship between the variables used in the study both first- and second-generation tests were applied. This is important since in order to estimate ARDL, the variables should be I (1) or I (0) or mixture of both but not I (2). To test for unit root in a panel of series IPS and LLC are use as first-generation tests proposed by Im, Pesaran, Shin (2003) and Levin, Li, Chu (2002) respectively. The baseline framework of these two tests is an ADF regression for panel data and is specified as follows.

$$\Delta y_{it} = \gamma_i y_{it-1} + \sum_{j=1}^p \Phi_j \Delta y_{it-j} + \varepsilon_{it} \text{ Where } \gamma_i = \rho_i - 1$$

Both tests assess the null of unit root $H_0: \gamma_i = 0$ ($\rho_i = 1$) against the alternative of stationarity $H_1: \gamma_i < 0$ ($\rho_i < 1$). The LLC test assumes that the parameters tested are equal across all the panels and thus $\rho_i = \rho$ for all i countries in the panel. Meanwhile, the IPS test is less restrictive than the LLC test and is obtained as an average of the ADF statistic and allows the parameters to vary across panel. However, both IPS and LLC do not accommodate cross-section interdependency that could warrant due to inherent linkages in macroeconomic fundamentals. Unaccounted residual interdependence and unobserved common factors (Juergen, 2019). But second-generation unit root tests accommodate cross section interdependence variables.

In order to examine whether the given series are cross-sectional dependent the study employs Pesaran's (2004) CD test. To select the correct type of unit root test, the study must first test for cross-sectional dependence for the variables, the Lagrange Multiplier (LM) and bias-adjusted Lagrange Multiplier tests developed by Breusch and Pagan (1980) and Pesaran, Ullah, and Yamagata (2008), were adopted. It is well known that

when T is larger than N ($T > N$, as is the case in this paper), LM and LMadj tests are the most suitable.

Autoregressive Distributed Lag- Pool Mean Group

In order to examine the long run impact of education expenditure on economic growth of WAMZ member countries, the panel ARDL-PMG introduced by Pesaran et al (1999) was adopted. PMG estimator constraint the long run coefficient to be homogenous and allows the short run coefficients, error term intercept and the error variance to differ freely across cross sections (Fazli and Abbasi 2018, Onuoha et al 2018). One of the advantages of this approach is that it gives consistent and efficient estimators as it removes the problem of endogeneity by including lag length for both dependent and independent variables. Additionally, it can test long run relationship irrespective of order of integration of variables i.e. $I(0)$, $I(1)$ or mixture of the two. Usual standard static models like pooled OLS, fixed effect and random effect models does not possess the estimation power to distinguish between short run and long run relationships among variables (Loayza and Ranciere 2006). On the other hand, dynamic panel like GMM difference estimator introduced by Allerano and Bond (1991) and GMM system estimator by Allerano and Bover (1993) are only applicable when the sample is characterized by large number of countries relative to the time period and they focus more on short run dynamics.

The impact of education expenditure on economic growth is represented by panel ARDL model, $(P, q1, q2, q3)$ where p is the lags of dependent variable while q represents lags of independent variables. The panel ARDL is represented as:

$$Y_{it} = \alpha_i + \sum_{j=0}^p \alpha_{1, ij} Y_{i, t-j} + \sum_{j=0}^{q1} \alpha_{2, ij} EDX_{i, t-j} + \sum_{j=0}^{q2} \alpha_{3, ij} CPF_{i, t-j} + \sum_{j=0}^{q3} \alpha_{4, ij} RQY_{i, t-j} + \epsilon_{it} \dots (1)$$

where $i=1,2,3, \dots, N$ and $t=1,2,3, \dots, T$, α_i represents the fixed effects, $\alpha_1 - \alpha_4$ are the lagged coefficients of the independent variables and the ϵ_{it} is the error term which is assumed to be white noise and varies across countries and time.

A panel error correction (ECM) representation equation (1) is formulated as follows:

$$Y_{it} = \alpha_i + \sum_{j=0}^p \alpha_{1, ij} Y_{i, t-j} + \sum_{j=0}^{q1} \alpha_{2, ij} EDX_{i, t-j} + \sum_{j=0}^{q2} \alpha_{3, ij} CPF_{i, t-j} + \sum_{j=0}^{q3} \alpha_{4, ij} RQY_{i, t-j} + \beta_1 Y_{it-1} + \beta_2 EDX_{it-1} + \beta_3 CPF_{it-1} + \beta_4 RQY_{it-1} + \epsilon_{it} \dots (2)$$

Where Δ is the first difference of variables and also $\alpha_1 - \alpha_4$ are the short-run parameters, while $\beta_1 - \beta_4$ are the long-run parameters. Where Y is economic growth, EDX education expenditure, CPF gross capital formation and RQY is regulatory quality.

Results and Discussions

Correlation Matrix

In order to examine correlation between dependent and independent variables and between one regressor and the other, correlation matrix was applied.

Table 1: Correlation matrix

	Y	Edx	Cpf	Rqy
Y	1			
Edx	0.72	1		
Cpf	0.35	0.09	1	
Rqy	-0.31	0.45	-0.01	1

Source: Author's computation

The result in table 1 above shows positive correlation between dependent variable (rate of economic growth) and education expenditure and gross capital formation at a value of 0.72 and 0.35 while regulatory quality has - 0.31 correlation. Additionally, the correlation matrix empirical result indicates absence of multicollinearity among the examined variables as all of them have less than 80 percent correlation coefficients.

Cross- Sectional Dependence Test

To determine whether to apply first- or second-generation unit root tests, the study adopted cross-sectional dependence test. The results are shown in table 2 below

Table 2: Cross-Sectional Dependence test Results

Test	Statistics	Prob
Bruesch-pagan LM	17.89190	0.0568
Pesaran scaled LM	1.764683	0.0776
Pesaran CD	-0.709415	0.4781

Source: Extracts from Eviews version 10

Base on the probabilities of all the tests conducted the null hypothesis of no cross-sectional dependence cannot be rejected at 5% level of significance and hence no cross-sectional dependence among the countries under investigation. Therefore, first generation panel unit roots test can be applied to test the level of stationarity of the variables.

Panel Unit Root Tests

In order check the stationarity properties of the variables used, the study adopted first generation stationarity test of Im Pesaran, Shin (2003) and Levin, Li, Chu (2002). Table 3 below presents the results of the panel unit root tests results of the variables at levels as well as in their first difference.

Table 3: Panel unit root tests results

Variables	LLC Test		IPS Test	
	Intercept	Intercept and trend	Intercept	Intercept and trend
Y	-2.206(0.0137)**	-4.788(0.0000)***	-1.176(0.1199)	-1.809(0.0352)**
Edx	-1.478(0.0679)	-1.501(0.0667)	-0.739(0.2300)	-0.300(0.3818)
Cpf	-3.304(0.0005)***	-2.629(0.0043)**	-1.969(0.0244)**	-0.733(0.2319)
Rqy	-5.769(0.0000)***	-5.522(0.0000)***	-4.351(0.0000)***	-4.375(0.0000)***
DY	-9.624(0.0000)***	-8.687(0.0000)***	-6.462(0.0000)***	-4.851(0.0000)***
DEdx	-7.110(0.0000)***	-6.178(0.0000)***	-5.859(0.0000)***	-4.687(0.0000)***
DCpf	-5.391(0.0000)***	-5.109(0.0000)***	-4.359(0.0000)***	-3.679(0.0000)***
DRqy	- 14.371(0.0000)***	-13.692(0.0000)***	- 11.647(0.0000)***	-10.115(0.0000)***

Source: Author's computation using E-views 10. Notes that Numbers in parenthesis are P-Values, *** and ** indicates 1% and 5% significance levels.

The result of the panel unit root tests indicates that economic growth, Gross capital formation and Regulatory quality are all stationary at levels that is they are I(0) the level of Education expenditure contain unit root and becomes stationary after first difference, it is I(1).

Panel ARDL- PMG

In order to investigate the long run and short run impact of education expenditure on economic growth of the WAMZ member countries ARDL is estimated using pool mean group estimator. Both the short run and long elasticity's results of economic growth with respect to education expenditure are reported in table 4, the lag-length is selected based on Akaike information Criterion.

Table 4: PMG Results
Economic Growth (Y) Dependant variable

VARIABLE	COEFFICIENT	STD.ERROR	T-STATISTICS	PROB.
LONG RUN				
EDX	0.226398	0.080316	2.818834	0.0068***
CPF	0.050817	0.081982	0.619860	0.5381
RQY	0.538888	2.230549	0.241594	0.8100
SHORT RUN				
ECM	-0.617544	0.242650	-2.545000	0.0139**
D(EDX)	6.317940	6.375946	0.990902	0.3263
D(CPF)	-1.050823	0.857745	-1.225100	0.2261
D(RQY)	7.236439	9.639928	0.750674	0.4562

Source: Author's computation. *** and ** indicates significance at 1% and 5% significance level.

Base on the result of the pooled mean group estimator, education expenditure is positive and statistically significant in the long run, this means that 1% increase in education expenditure in WAMZ member country will lead to 23% increase in economic growth. However, Gross capital formation and regulatory quality were found to be insignificant in the long run for the period under study. While in the short run all the variables education expenditure, gross capital formation and regulatory quality were found to be statistically insignificant. The negative coefficient of the ECT indicates the process of convergence to long run equilibrium. if there is any short-run disequilibrium, then the degree of adjustment will be - 0.62 yearly to get long-run equilibrium. That means short run disequilibrium is corrected by 62%.

Short Run and Long Run Relationship of the Growth Model

The short run and long run parameters of the ARDL-PMG are estimated. The study applied Akaike Information Criterion (AIC) for the selection of appropriate lags for the model. Table 5 provides the short run and long run ARDL-PMG results on the impact of education expenditure on economic growth. From table 5 it can be presumed that at 1 percent level of significance, the study established an evidence of long run relationship between education expenditure and economic growth by 23% increase increased. This conforms to Wagner's Law of Increasing State Activities, that emphasized on the role of education in the process of growth and development. The finding is in line with studies conducted by (Aluthge et al. 2021) and (Hashim et`al, 2021) and contradicts studies by (Saidu and Ibrahim, 2019) and (Kouton, J. 2018).

On the other hand, Gross capital formation and regulatory quality in the long run has a negative and insignificant impact on economic growth. The result suggests that in the long run, capital formation and regulatory quality do not help in explaining growth and development. The short run result shows that all the variables education expenditure, gross capital formation and regulatory quality were found to be statistically insignificant to drive economic growth. Thus, the finding is in line with previous studies like; Abdulmenaf and Mustapha (2015) and Gukat and Ogboru, (2017), but in contrast with studies by Phuoc, and Mai (2021) and Swandaru, (2021).

Conclusions and Recommendations

This study empirically investigated the impact of education expenditure on economic growth in west African Monetary Zone (WAMZ) countries using secondary data sourced from world development indicators 2020 and world governance indicators 2020. The study applied econometric technique Autoregressive Distributed Lag (ARDL) Pool mean Group (PMG) with Correlation Matrix, cross sectional dependence test and Panel Unit root test. The result of the study reveals that education expenditure has positive and statistically significant impact on economic growth in the long run while Capital Formation and Regulatory quality are no statistically significant however, in the short run all the variables are statistically insignificant. But the speed of adjustment parameter shows strong convergence to long run in which 62% of the errors of the previous periods are corrected in the current period.

Base on the findings, the following recommendations were made:

1. There is the need for sincere commitment of WAMZ member countries for a proper funding in adherence with UNESCO minimum benchmark of 26% education share of total budgetary allocation.
2. In line with international standards, the WAMZ member countries educational system, requires an institutional transformation in terms of policy formulation, implementation and monitoring.
3. Factors like corruption and embezzlement need to be checked to avoid undue leakages in the educational sector. Also, the need to prioritize capital investment in education especially in technical and vocational education becomes imperative.
4. Sincere commitment by stakeholders in the education industry (government and its agencies, students, educational investors among others) towards their obligations could go a long way in correcting the anomaly that has over time distorted the relationship between educational expenditure and economic growth.

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