

## RESEARCH ARTICLE



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# Sustainable entrepreneurship: A catalyst for unemployment reduction and economic growth in Anglophone and Francophone countries

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## Abstract

The purpose of the study is in two fold. First, the study examines the impact of language, history, and culture in Anglophone and Francophone countries on the rate of unemployment and economic growth. Second, the study explores the extent to which sustainable entrepreneurship influences the rate of unemployment, and economic growth in Anglophone and Francophone (A&F) countries. The study employed a descriptive and quantitative research design where a longitudinal data were sourced from the World Development Indicators and World Bank Entrepreneurship databases on 12 and 9 Francophone and Anglophone countries respectively. The random effect and the generalized method of moments (GMM) regression models were employed to attain the objectives of the study. The findings of the study revealed that there is a significant negative effect of sustainable entrepreneurship on unemployment; sustainable entrepreneurship has a positive significant effect on economic growth; and also, history and culture were found to have a significant impact on unemployment reduction and economic growth. However, language was found to have an insignificant influence between A&F countries suggesting that the ability of sustainable entrepreneurship to minimize the rate of unemployment and boost economic growth is generic irrespective of linguistic factors.

## KEYWORDS

Anglophone countries, economic growth, Francophone countries, sub-Saharan Africa, sustainable entrepreneurship, unemployment

## 1 | INTRODUCTION

In recent years, the topic of sustainable entrepreneurship, unemployment, and economic growth in sub-Saharan Africa (SSA) has gained significant attention (Ahmad & Bajwa, 2021; Prasetyo, 2021). However, research on Anglophone and Francophone (A&F) countries remain scant (Chuke Nwude et al., 2023). According to the World Bank statistics, the overall growth in the rate of unemployment in SSA

between 2009 and 2020 is approximately 17%; even though countries such as Namibia, Sierra Leone, Ghana, Madagascar, Zambia, Cote d'Ivoire, and Senegal have witnessed between 5% and 66% decline in the rate of unemployment between 2009 and 2020. Also, Mali, Chad, and Liberia are among the top three countries with the highest growth in unemployment rate at 166%, 72% and 70%, respectively, between 2009 and 2020 (World Bank, 2021). Sustainable entrepreneurship, as a critical facet of sustainable development, embodies the

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implementation of innovative solutions geared toward the mass market. Its primary objective is to confer advantages upon a substantial segment of society. Notably, sustainable entrepreneurs—whether individual actors or corporate entities—play a pivotal role in advancing sustainable development through their core business operations. Their contributions extend beyond mere profit-seeking; they actively seek opportunities to generate positive change with regards to society and environment (Schaltegger, 2013; Schaltegger & Wagner, 2011).

However, it is not clear how the differences in language, history, and culture in A&F countries of SSA influences rate of unemployment and economic growth. It is also not clear to what extent does sustainable entrepreneurship influences the rate of unemployment and economic growth in these A&F countries. One study has been conducted looking at the impact of non-oil tax on economic growth in five countries of A&F countries (Eze, 2023). None of the previous studies has conclusively addressed the subject-matter along these categorizations. There is a call for more research in A&F countries (Chuke Nwude et al., 2023) and this current study intends to minimize this gap. As countries across the region strive to achieve sustainable economic growth and reduce unemployment rates, understanding the linguistic, history and cultural differences between A&F countries and their impact on employment reduction and economic growth becomes vital. Again, the interplay between sustainable entrepreneurship, unemployment reduction, and economic growth has become crucial.

Thus, the purpose of the study is in two fold. First, the study examine the impact of language, history, and culture in A&F countries on the rate of unemployment and economic growth. Second, the study explores the extent to which sustainable entrepreneurship influences the rate of unemployment and economic growth in A&F countries. The necessity of this study lies in the fact that unemployment reduction and economic growth could be achieved when linguistic, history, and culture of A&F countries, as well as sustainable entrepreneurship impact positively on each region. The effects of complementary A&F formation and sustainable entrepreneurship are highlighted. The novelty of this study is the unveiling of the influence of contextual differences along language, history, and culture of A&F countries, and sustainable entrepreneurship on the unemployment reduction and economic growth.

The rest of the paper is organized as follows: context of the study, the review of extent literature. This is followed by the methodology section, results and discussion of the study. The paper concludes with recommendations, contribution of the study, and the future research.

## 2 | CONTEXT: A&F COUNTRIES OF SSA

SSA is a vibrant mosaic of linguistic, cultural, and historical diversity. With over 2000 distinct languages, it reflects the cultural richness of its people. However, this linguistic diversity also poses challenges in communication and governance. Anglophone countries, where English is prevalent, benefit from cross-ethnic interaction, trade, and diplomacy. They have integrated the British system of governance and

their proficiency in English has attracted foreign investment, positioning them as regional economic powerhouses (Lewin & Sabates, 2011). Notably, Nigeria and South Africa exemplify this trend, experiencing robust economic growth and attracting multinational corporations. In contrast, Francophone nations celebrate indigenous languages like Swahili, Hausa, and Yoruba, nurturing cultural identity. However, the lack of widespread English proficiency, coupled with infrastructural limitations, has hindered their economic progress. Despite these challenges, their commitment to local languages permeates education, media, and government, prioritizing cultural preservation (Lewin & Sabates, 2011; Assane & Malamud, 2010). In education, Anglophone countries exhibit higher literacy rates compared with their Francophone counterparts. The ubiquitous presence of English in schools grants students access to a wealth of educational resources, fostering a skilled professional workforce. This linguistic bridge to global knowledge amplifies their competitive edge in an interconnected world (Akisik et al., 2020; Chuke Nwude et al., 2023; Osei et al., 2020).

Despite these obstacles, efforts are underway to attract foreign direct investment and establish resilient trade networks. Regional organizations, such as the African Union and ECOWAS, recognize the dual imperatives of linguistic diversity and pragmatic communication. They champion the use of common languages—English, French, and Portuguese—as working languages, fostering effective communication and collaborative endeavors among member states, transcending linguistic boundaries in pursuit of shared prosperity (Akisik et al., 2020; Evbaziogbere et al., 2024).

## 3 | LITERATURE REVIEW

### 3.1 | Theoretical review

The interconnectedness of sustainable entrepreneurship, unemployment, and economic growth could be complex when a theoretical approach is adopted to explain their nexus. Previous studies have adopted several theories to explain how sustainable entrepreneurship influences unemployment which can lead to an improvement in the general economic growth of a country (see Ahmad & Bajwa, 2021; Figueiredo & Paiva, 2018; O'Leary, 2022; Otache, 2019; Prasetyo, 2021; Uju & Racheal, 2018). The theory of planned behavior, which is credited to Ajzen (1985), underpins the study by Otache (2019) where it was argued that positive attitude toward entrepreneurial behavior, encouraging subjective norms for entrepreneurial behavior, and favorable perceived behavioral control for entrepreneurial behavior are determinants of people's entrepreneurial intentions. The economic theory (Carree & Dejardin, 2020; Delfmann et al., 2014; O'Leary, 2022 and Santarelli et al., 2009) also argues that unemployment can induce people to pursue entrepreneurship to create their own jobs and avoid unemployment, which lead the market back to equilibrium. The theory of economic survival (Belda & Cabrer-Borrás, 2018; Boden Jr & Nucci, 2000), Schumpeter's theory (Uju & Racheal, 2018) and many other theories were used in existing

literature, however, this present study is anchored on the behavioral theory of social entrepreneurship (Ahmad & Bajwa, 2021; El Ebrashi, 2013). Proponents of the theory believe that innovation and entrepreneurship are the economic development engines in the contemporary political economy. The behavioral theory of social entrepreneurship focuses on the psychological traits, motivations, and decision-making processes of individuals who engage in social entrepreneurship (El Ebrashi, 2013). Unlike traditional economic theories that emphasize rational decision-making based solely on profit-maximization principles, the behavioral theory recognizes the complex interplay of psychological factors that drive individuals to pursue social and environmental goals alongside financial ones. Shaped by their cultural beliefs, social entrepreneurs recognize the importance of building relationships and collaborating with diverse stakeholders, including community members, government agencies, nonprofits, businesses, and philanthropic organizations. This provides a geographic context for social venture creation, the underlying organization dynamics and structures, and how these typologies measure social impact, mobilize resources, and bring about sustainable social change that eventually leads to socio-economic development in the A&F countries. Entrepreneurship serves as economic growth engine in the contemporary political economy to combat unemployment, however, does conditions in A&F countries make a difference?

### 3.2 | Historical, linguistic, cultural factors as moderating effects of unemployment reduction and economic growth in A&F countries of SSA

The historical backdrop of A&F nations in SSA has undeniably left a deep imprint on their economic development paths. Influential historical events, such as colonization and the transatlantic slave trade, have sculpted the socio-economic frameworks and disparities that are still evident today (Ricart-Huguet, 2021). A multitude of Anglo nations, previously under British rule, have inherited economic infrastructures that continue to propagate inequality and obstruct sustainable economic growth. In a similar vein, the transatlantic slave trade has indelibly marked the economic terrain of Afro nations. The remnants of slavery have given rise to economic hurdles that Afro nations are still striving to overcome (Chuke Nwude et al., 2023).

The linguistic diversity, a hallmark of SSA, wields a significant influence on the entrepreneurial environment of A&F nations. Language serves as both an impediment and a catalyst for sustainable entrepreneurship within these regions (Skattum, 2018). The linguistic diversity can present obstacles for entrepreneurs aspiring to broaden their businesses across regions. Language barriers can complicate communication with prospective customers, business deal negotiations, or the procurement of necessary resources, thereby stunting the growth and scalability of businesses. However, the flip side of this coin is that language diversity can also unveil opportunities for entrepreneurs who can adeptly navigate and exploit this diversity (Ba, 2018; Bourhis & Sioufi, 2017). Sustainable entrepreneurs proficient in the native language of their target market are more likely to establish a deeper connection with customers and earn their trust,

leading to enhanced customer loyalty and repeat business, thereby bolstering the sustainability of entrepreneurial ventures.

Culture assumes a pivotal role in molding the labor market dynamics of A&F nations in SSA. A comprehensive understanding of the impact of culture on unemployment can shed light on the factors that lead to high or low unemployment rates within these nations. Cultural values, such as the emphasis on education and work ethic, can significantly sway unemployment rates (Ba, 2018; Mcleod, 2014). In a host of SSA cultures, education is held in high regard and is perceived as a route to success. However, restricted access to quality education and a skills gap in relation to the job market demands can lead to elevated levels of unemployment. Moreover, cultural attitudes toward specific types of work, such as manual labor or entrepreneurship, can also influence unemployment rates (Ado, 2020; Beynon et al., 2019; Olowu et al., 2020). For instance, in certain cultures, some jobs may be stigmatized or deemed beneath individuals, resulting in a reluctance to pursue those opportunities. This can lead to higher unemployment rates as individuals may wait for more desirable job options, even if they are in short supply. Finally, cultural norms and traditions can also impact the gender dynamics within the labor market, resulting in disparities in unemployment rates between men and women. In certain cultures, women may encounter more obstacles to employment due to factors such as traditional gender roles and societal expectations, leading to higher levels of female unemployment compared to their male counterparts (Griffiths, 2010). Because of the economic implications of these outrageous growth in the rate of unemployment in both A&F countries, tenants of the economic theory posit that people are induced to pursue entrepreneurship ventures to create their own jobs and avoid unemployment which lead the market back to equilibrium. Entrepreneurship ventures involve the establishment and operation of businesses and enterprises in areas, which undertake various economic activities, ranging from small-scale informal businesses to larger formal enterprises (Mathibe & Chinyamurindi, 2022; Otache, 2019). While entrepreneurship may create jobs, the scale and sustainability of these jobs may be limited where factors such as inadequate access to finance, regulatory barriers, weak infrastructure, and limited market linkages can impede the growth and impact of entrepreneurial ventures (Mathibe et al., 2021). The interconnectedness of sustainable entrepreneurship, unemployment, and economic growth in A&F countries in SSA is of interest for this study.

**Hypothesis 1.** The interplay of historical, linguistic, and cultural factors significantly influences the rate of unemployment and economic growth in both Anglophone and Francophone countries within SSA.

### 3.3 | Sustainable entrepreneurship as the moderating effect of unemployment reduction and economic growth in A&F countries of SSA

In SSA, unemployment rates can vary significantly between A&F countries (World Bank 2021). Understanding these differences can provide valuable insights into the factors that contribute to

unemployment reduction within these regions. In the context of the enduringly high unemployment rates and the pressing need for economic growth in the A&F nations of SSA, sustainable entrepreneurship emerges as a potential solution (see Afolabi et al., 2022; O'Leary, 2022; Pephrah & Adekoya, 2020; Zhakupov et al., 2023). SSA has been experiencing a surge in its youth population, with approximately 297 million people aged between 10 and 24. This figure is projected to soar to around 561 million by 2050. Amidst this demographic shift, the region's economies are witnessing varying degrees of growth (Beynon et al., 2019; Uju & Racheal, 2018). In 2012, SSA reported an average gross domestic product (GDP) growth of 5.3%, outpacing the global average of 3.3%. However, the region still grapples with the lowest total GDP and GDP per capita globally. Despite significant GDP gains in countries like Ethiopia and Ghana, wealth remains heavily concentrated. Nigeria and South Africa, the region's wealthiest countries, generate almost half of the region's GDP (Chuke Nwude et al., 2023; Eze, 2023).

By integrating entrepreneurial zeal with a dedication to sustainable development, hold the potential to generate employment, stimulate innovation, and propel economic growth. Anglo countries tend to have a higher percentage of their population engaged in formal employment, leading to lower unemployment rates. Afro countries, on the other hand, often face higher levels of informal employment. This can be attributed to factors such as limited access to formal education and vocational training, as well as the prevalence of the informal sector in the economy (Olowu et al., 2020). In Afro countries, a significant portion of the population is engaged in informal economic activities, such as street vending or subsistence farming. While this provides some form of livelihood, it often lacks stability and social protection, leading to higher levels of underemployment and vulnerable employment (Akisik et al., 2020; Chuke Nwude et al., 2023; Igwe et al., 2023).

Sustainable entrepreneurship not only plays a pivotal role in unemployment reduction, but also significantly contributes to the overarching economic growth (see Prasetyo, 2021; Tjahjanto et al., 2023). Therefore, from the studies reviewed above, it can be seen that sustainable entrepreneurship significantly influences unemployment and economic growth, however, in the context of a comparison between A&F countries remains a vacuum. Fostering and supporting sustainable entrepreneurship in A&F countries can lead to innovation, productivity gains, and increased employment opportunities. However, despite the extensive scholarly discourse on this subject (see Ahmad & Bajwa, 2021; Carree & Dejardin, 2020; O'Leary, 2022; Prasetyo, 2021), empirical evidence specifically addressing the impact of sustainable entrepreneurship on unemployment reduction and economic growth remains conspicuously absent (Schaltegger, 2013). This provides the foundation for developing the subsequent hypothesis of this study. The second and third hypothesis of the study is specified as follows:

**Hypothesis 2.** Sustainable entrepreneurship has a significant impact on unemployment reduction and economic growth in A&F countries.

## 4 | RESEARCH METHODOLOGY

### 4.1 | Research design

The overall objective of this study is to examine the nexus of linguistic, historical and cultural factors, and sustainable entrepreneurship on unemployment reduction and economic growth among the Francophone and Anglophone countries in SSA. Hence, it was deemed appropriate to adopt a descriptive and quantitative research design (Kpegba et al., 2023). This was to ensure reliability of findings where the researcher's influence on the study was limited.

### 4.2 | Data

Based on data availability, the study used a longitudinal data from 2009 to 2019, which were sourced from the World Development Indicators (WDI) and the World Bank Entrepreneurship databases. Also, data within this time range were strategically chosen to avoid abnormal distribution of the dataset. The global crises experienced in 2007 to 2008 and the post covid-19 effect in 2020 to date is believed to have distort global statistics, which will not serve as a reliable basis for estimating the relationship between the variables of the study. The study used 21 SSA countries (out of which 9 are Anglophone countries and 12 are Francophone countries). The Anglophone countries include: Botswana, Ghana, Liberia, Namibia, Sierra Leone, Tanzania, Uganda, Zambia, and Zimbabwe; whereas the Francophone countries include: Benin, Chad, Congo, Cote D'Ivoire, Gabon, Guinea, Madagascar, Mali, Rwanda, Senegal, Seychelles, and Togo.

### 4.3 | Variables and measurement

The dependent variables of the study include: Unemployment (UNEM), and Economic Growth (GDPG); the independent variable is Sustainable Entrepreneurship (SENT); whereas the control variables include: Working Age Population Growth (WAPOP), foreign direct investment (FDI), Trade Openness (TRADE), and Inflation (INFLATION). Kpegba et al. (2023) found that working age population growth, and trade openness have the tendency to influence entrepreneurship whereas FDI and Inflation also influence Economic Growth, hence, this study controls for these variables in the model estimation. A dummy variable was introduced to proxy for the linguistic (LANG) distinction between the A&F countries (where 1 = Anglophone countries and 0 = Francophone countries). Similarly, due to the unique historic and cultural identities of each countries considered for the study, another dummy was generated to represent history and culture (HC) for the study (Fernandes, 2022; Hu & Smith, 2021).

In line with literature, Economic Growth was proxied with annual GDP growth (GDPG) rate (Abdullah et al., 2019; Daud, 2020); Unemployment was proxied with relative unemployed active labor force (O'Leary, 2022); Sustainable Entrepreneurship was proxied as shown in Equation 1 below (Dhahri & Omri, 2018; Kpegba et al., 2023;

Youssef et al., 2018). Working Age Population was proxied with active labor force between the ages of 15–64 years relative to total population (Kpegba et al., 2023); Foreign Direct Investment was measured as total net inflows of investment relative to GDP (Tarek & Ahmed, 2017); trade openness was measured as total import and export relative to GDP (Oppong et al., 2023; Kim, 2017), and Inflation was also proxied with consumer price index (Oppong et al., 2023; Tarek & Ahmed, 2017).

$$\text{SENT} = \frac{\text{Total number of new registered businesses}}{\text{Working age population}} \quad (1)$$

#### 4.4 | Model specification

Using UNEM and GDPG as the dependent variables, a panel regression, using fixed effect (FE) and random effect (RE), was employed. These dependent variables were modeled as a function of SENT, Language (LANG), HC, WAPOP, FDI, TRADE, and INFLATION. The general model for the study is as follows:

$$Y_{it} = \alpha + \beta\chi_{it} + \beta_1\mu_{it} + \beta_2\lambda_{it} + \beta_3\delta_{it} + \dots + \varepsilon_{it}, \quad (2)$$

where  $Y$  is the dependent variable,  $X$  is the independent variable and  $\mu$ ,  $\lambda$ , and  $\delta$  are the control variables. The  $\varepsilon$  is the error term, where  $\beta$ ,  $\beta_1$ ,  $\beta_2$ , and  $\beta_3$  are the degree of impact.

The following models are specified in line with the objectives of the study:

$$\text{UEMP}_{i,t} = \alpha + \beta\text{SENT}_{i,t} + \beta_1\text{LANG}_{i,t} + \beta_2\text{HC} + \beta_3\text{WAPOP}_{i,t} + \beta_4\text{FDI}_{i,t} + \beta_5\text{TRADE}_{i,t} + \beta_6\text{INFLATION}_{i,t} + \varepsilon_{i,t}. \quad (3)$$

$$\text{GDPG}_{i,t} = \alpha + \beta\text{SENT}_{i,t} + \beta_1\text{LANG}_{i,t} + \beta_2\text{HC}_{i,t} + \beta_3\text{WAPOP}_{i,t} + \beta_4\text{FDI}_{i,t} + \beta_5\text{TRADE}_{i,t} + \beta_6\text{INFLATION}_{i,t} + \varepsilon_{i,t}. \quad (4)$$

#### 4.5 | Robustness check

To ensure reliability of findings, Lu and White (2014) and Caron et al. (2023) posit that researchers need to examine how core variables behave under certain conditions using robustness checks. Considering the major limitation of FE and RE regression estimates, it is assumed that the independent variables are exogenous, meanwhile, there is the tendency of reciprocal or reversed causality where these effects are likely to endure over time. Hence, it is not always reliable to depend on results from FE and RE estimates (Abdallah et al., 2015). This study therefore adopts the system generalized method of moments (S-GMM) proposed by Arellano and Bond (1991) and Arellano and Bover (1995) as robustness check to ensure reliability of findings. The S-GMM does not only produce robust estimates, but also corrects for potential issues of endogeneity, second order autocorrelation, and unobservable heterogeneity by including the lagged term of the dependent variable in the estimation (Arellano & Bond, 1991; Arellano & Bover, 1995). Also, the Durbin–Wu–Hausman test (Hausman, 1978) was used to choose between the fixed effect and

random effect models in the panel regression analysis. We reject the null hypothesis (random effect is more appropriate) if the  $p$ -value is less than .05 and we fail to reject the null hypothesis if the  $p$ -value is greater than .05.

## 5 | FINDINGS/RESULTS

### 5.1 | Descriptive statistics

Table 1 illustrates the descriptive statistics of the study. The minimum and maximum values of unemployment rate recorded were 0.6% and 23.35%, respectively, with a mean of about 7%. GDPG rate has a maximum and minimum values of 21.452% and –20.491%, respectively, with a standard deviation of 4.864 across the mean of 4.063. The maximum ratio of newly registered businesses to the active labor force recorded was 20.091 and a minimum of 0.007. The dummy variable used to differentiate between the A&F countries can be seen as 0 and 1 whereas 21 different cultural and historic identities are unique for each country considered for the study. Working age population growth recorded a maximum and minimum of about 70% and 48%, respectively, with a mean of 55.446% and standard deviation of 4.531. The average FDI, trade and inflation rate recorded over the period (i.e., 2009 to 2020) were 6.03%, 75.567%, and 8.481%, respectively.

### 5.2 | Pairwise correlation

Table 2 shows the pairwise correlation analysis of the variables of the study. These coefficients were compared with the threshold proposed by Kennedy (2008) to establish that there is no sign of multicollinearity since all coefficients are less than 0.8. UNEM is found to have a negative correlation with GDPG and SENT whereas GDPG is found to have a positive correlation with SENT. This implies that an increase in GDPG and SENT will be associated with a decline in UNEM. Also, an increase in SENT is likely to be associated with an increase in GDPG. This is similar to the correlation matrix of Kpegba et al. (2023) where it was argued that the positive association between entrepreneurship and economic growth is expected. WAPOP is found to have a positive correlation with UNEM and SENT but a negative correlation with GDPG. Trade is found to have a positive correlation with all other variables except GDPG, LANG, and HC where it is associated with a marginal decline over time. FDI has a negative association with unemployment and SENT but a positive association with GDPG, LANG, and the WAPOP.

### 5.3 | Regression

The regression results for study are presented in Table 3. The results are presented in four separate models. Models (1) and (3) represent the results from the FE regression model whereas models (2) and

TABLE 1 Summary statistics.

Variable	Obs.	Mean	Std. deviation	Minimum	Maximum
TIME	252	2014.5	3.459	2009	2020
UNEM	240	7.446	6.932	.6	23.35
GDPG	252	4.063	4.864	-20.491	21.452
SENT	203	1.492	3.282	.007	20.091
LANG	252	.429	.496	0	1
HC	252	11	6.067	1	21
WAPOP	252	55.446	4.531	48.289	69.849
FDI	252	6.03	12.057	-18.918	103.337
TRADE	240	75.567	36.569	27.963	222.082
INFLATION	249	8.481	38.675	-2.431	557.202

Abbreviations: FDI, foreign direct investment; GDPG, gross domestic product growth; HC, history and culture; SENT, sustainable entrepreneurship; UNEM, unemployment; WAPOP, working age population growth.

Source: Authors' result (2024).

TABLE 2 Pairwise correlations.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) TIME	1.000									
(2) UNEM	-0.019	1.000								
(3) GDPG	-0.311*	-0.187*	1.000							
(4) SENT	-0.040	-0.432*	0.090	1.000						
(5) LANG	0.000	0.047	0.040	0.273*	1.000					
(6) HC	0.000	-0.235*	0.130*	-0.329*	0.381*	1.000				
(7) WAPOP	0.113	0.693*	-0.142*	0.433*	-0.003	-0.093	1.000			
(8) FDI	-0.167*	-0.033	0.065	-0.097	0.102	-0.018	0.103	1.000		
(9) TRADE	-0.069	0.613*	-0.075	0.242*	-0.158*	-0.112	0.754*	0.447*	1.000	
(10) INFLATION	0.109	-0.010	-0.202*	0.008	0.150*	0.157*	0.003	-0.019	-0.045	1.000

Abbreviations: FDI, foreign direct investment; GDPG, gross domestic product growth; HC, history and culture; SENT, sustainable entrepreneurship; UNEM, unemployment; WAPOP, working age population growth.

Source: Authors' result (2024).

\* $p < .1$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

(4) represent the results from the RE regression model as a function of UNEM and GDPG, respectively. From the Hausman specification test, we fail to reject the appropriateness of the random effects models for the study ( $p$ -value  $>.05$ ), hence, we interpret the results from models (2) and (4). Model (2) is in line with the first objective of the study where the influence of SENT on UNEM is assessed. It can be seen that unit increase in SENT will result in a 0.194 significant decrease in UNEM ( $\beta = -0.194$ ,  $p < .10$ ). Language was found to be insignificant in this relationship suggesting that the Francophone or Anglophone countries does not make a difference on the influence of Sustainable entrepreneurship in reducing Unemployment. However, HC was found to significantly influence unemployment reduction ( $\beta = -.474$ ,  $p < .05$ ). Additionally, FDI, Trade, Working Age population growth, and Inflation were all found to have an insignificant effect on UNEM, respectively. From model (4), except for Language, FDI, and Inflation, the impact of all the other variables on GDPG were found to be significant. A unit increase in SENT will result in a 0.108 significant increase in GDPG ( $p < .05$ ), suggesting that sustainable

entrepreneurship promotes economic growth among A&F countries. Also, language was found to be insignificant in this relationship however, HC was found to significantly reduce economic growth. A unit increase in WAPOP and Inflation will result in 0.415 and 0.110 decrease in GDPG, respectively. A unit increase in Trade and FDI will also result in a 0.0357 ( $p < .05$ ) and 0.0594 ( $p > .10$ ) increase in GDPG.

## 5.4 | Robustness checks

To address potential problems of endogeneity and/or reverse causality issues with the FE and RE regression estimates presented in model (1) to model (4) in Table 3, the GMM model was also employed as robustness check. A robustness check is necessary to ensure that under different circumstances, the same conclusions will be deduced from the regression results. From Table 3, model (5) shows the system GMM estimates of unemployment as a function of sustainable

**TABLE 3** Regression results.

Variables	(1)	(2)	(3)	(4)	(5)	(6)
	UNEM	UNEM	GDPG	GDPG	UNEM	GDPG
L.UNEM					0.550*** (0.0191)	
LGDPG						0.146** (0.0571)
SENT	-0.273** (0.112)	-0.194* (0.116)	-0.261 (0.368)	0.108** (0.016)	-0.0847** (0.043)	0.499*** (0.105)
LANG		4.548 (2.833)		0.217 (1.072)	0.858 (0.837)	-0.718 (0.911)
HC		-0.474** (0.223)		-0.110* (0.0403)	-0.086* (0.0387)	-0.0109** (0.0047)
Control variables						
WAPOP	-0.420** (0.162)	-0.0975 (0.158)	-1.160** (0.522)	-0.415*** (0.138)	0.578*** (0.067)	-0.285** (0.133)
FDI	-0.0259 (0.0320)	-0.0111 (0.0340)	-0.00335 (0.0721)	0.0594 (0.0716)	-0.0741* (0.0416)	0.923*** (0.121)
TRADE	0.000860 (0.0110)	0.00710 (0.0116)	0.180*** (0.0350)	0.0357** (0.0181)	0.0329*** (0.0110)	-0.0540*** (0.0169)
INFLATION	-0.00519 (0.0321)	-0.0116 (0.0341)	-0.156* (0.0866)	-0.110 (0.0776)	-0.0269 (0.0172)	-0.275*** (0.102)
Constant	31.76*** (9.007)	16.09* (9.350)	56.40* (29.54)	23.46*** (6.754)	-29.43*** (4.321)	20.58*** (6.744)
Instrument validity						
AR (2)					0.247	0.575
Hansen test					0.548	0.099
Hausman test		0.483		0.521		
Observations	180	180	192	192	161	172

Note: Standard errors in parentheses.

Abbreviations: FDI, foreign direct investment; GDPG, gross domestic product growth; HC, history and culture; SENT, sustainable entrepreneurship; UNEM, unemployment; WAPOP, working age population growth.

Source: Authors' results (2024).

\* $p < .1$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

entrepreneurship, language, and HC. It can be observed from the results that even though the degree of impact of sustainable entrepreneurship has reduced, a more significant impact is exerted. That is a unit increase in SENT is found to significantly reduce unemployment by 0.0847% ( $p < .05$ ). Similarly, language and HC exhibit the same relationship under the FE and RE models. HC exhibit a negative significant impact on unemployment ( $\beta = -.086$ ,  $p < .10$ ) and economic growth ( $\beta = -.0109$ ,  $p < .05$ ). Lag of Unemployment was found to have a positive significant impact on unemployment at the 1% significance level ( $\beta = .550$ ,  $p < .01$ ) whereas the lag of economic growth was also found to have a positive significant impact on current year economic growth as the 5% significance level ( $\beta = .146$ ,  $p < .05$ ). The AR (2) result for model (5) and (6) are 0.247 and 0.575, which is less than the  $p$ -value threshold of 0.05 (5%) under the null hypothesis of no second order autocorrelation with the error term. Also, the Hansen test in model (5) and (6) shows a  $p$ -value of .548 and .099, which

compared with the 5% threshold under the null hypothesis of valid moment conditions. We fail to reject the null hypothesis hence the results are valid and reliable.

## 5.5 | Discussion

The objective of this study consistent with the hypothesis developed. First, to examine the impact of language, HC in A&F countries on the rate of unemployment and economic growth. Second, the study explores the extent to which sustainable entrepreneurship influences the rate of unemployment and economic growth in A&F countries. From the empirical findings, it can be observed that Sustainable entrepreneurship improves the level of unemployment (reduces the rate of unemployment) and improve economic growth; both in the A&F countries. Also, HC were found to have a significant influence on

unemployment reduction and economic growth. These findings confirm the first and second hypothesis of the study but rejects the sub hypothesis that language significantly influences economic growth and unemployment reduction. Even though, these findings are novel in nature, related conclusions were revealed by O'Leary (2022); Delfmann et al. (2014); Santarelli et al. (2009) and Carree and Dejardin (2020) where it was argued that entrepreneurship significantly improves unemployment and economic growth. Beynon et al. (2019) even though argues that that emerging countries need to put suitable measures in place to combat unemployment through entrepreneurship, it fails to provide insights into A&F countries. Also, Tjahjanto et al. (2023) was too limited in scope by focusing on only Central Java Province, Indonesia, while this study provides a wider scope by incorporating A&F countries. In line with this findings, this implies that irrespective of whether A&F countries need to put mechanisms in place to encourage sustainable entrepreneurial activities which will serve as unemployment rate absorber and economic growth booster.

## 6 | CONTRIBUTION AND CONCLUSION

Understanding the interconnectedness of sustainable entrepreneurship, unemployment reduction, and economic growth among the A&F countries is very essential in both the empirical front and the practical perspective. Considering the gap in existing literature, this study has provided an empirical framework that fills the vacuum in the existing literature and serves as the basis for future studies within this scope. Consistent with the objectives of this study, the cultural background, language and market size, international networks, and many other differences between A&F countries have been appreciated, in line with sustainable entrepreneurship, unemployment, and economic growth. This study also provides a theoretical foundation for policymakers to curb unemployment and improve economic growth within these countries by instituting appropriate measures to incentivize entrepreneurial activities. By exploring the nexus between sustainable entrepreneurship, unemployment, and economic growth in A&F countries in SSA, stakeholders can develop targeted strategies and policies to harness the potential of entrepreneurship as a means to address unemployment challenges and promote sustainable economic growth in township areas.

Despite the challenges, the future of sustainable entrepreneurship in SSA looks promising. The region's abundant natural resources, young and dynamic population, and growing consumer markets present significant opportunities for sustainable entrepreneurship. Moreover, the global shift toward sustainable development and the increasing demand for ethical products and services create a favorable market environment for African entrepreneurs focused on social and environmental impact. Cultural and linguistic barriers can present significant challenges for entrepreneurs operating in both A&F countries in Africa. However, there are strategies that can be employed to overcome these barriers and create a more inclusive and supportive business environment. The study recommend at least four strategies to overcome, cultural, linguistic, and historical barriers in mitigating

unemployment, encouraging sustainable entrepreneurship, and contributing toward economic growth among A&F countries of SSA.

1. By understanding the cultural nuances and values of the local population, entrepreneurs can avoid cultural misunderstandings and build stronger relationships with customers and partners. This can lead to increased trust, loyalty, and business success, which will promote sustainable entrepreneurship among these countries.
2. Entrepreneurs should be working closely with local stakeholders to gain insights into the cultural and linguistic dynamics of the market and develop strategies that resonate with the local population. This can help overcome cultural and linguistic barriers and create a more inclusive business environment.
3. Furthermore, leveraging technology and digital platforms can help entrepreneurs overcome language barriers and reach a wider audience. Translation services, multilingual websites, and localized marketing campaigns among A&F countries, can facilitate communication and engagement with customers who may speak different languages. This can open up new market opportunities and support business growth.
4. To create a business environment that is more inclusive and supportive, governments and organizations can also play a role. Initiatives such as language training programs, cultural exchange programs, and business matchmaking events can help bridge the cultural and linguistic divide and facilitate collaboration between entrepreneurs from different backgrounds.

Sustainable entrepreneurship holds immense potential for addressing the persistently high unemployment rates and driving economic growth in the A&F countries of SSA. Despite existing hurdles, the outlook for sustainable entrepreneurship in the region remains promising. Abundant natural resources, a youthful demographic, and expanding consumer markets present significant opportunities for enterprises committed to sustainability. Through innovation, collaboration, and a steadfast commitment to sustainable practices, African entrepreneurs can drive positive transformations, mitigate unemployment, and contribute to inclusive economic growth. Leveraging technological advancements and embracing collaborative approaches, sustainable entrepreneurs in SSA can align their efforts with the United Nations Sustainable Development Goals 4, 5, and 8. With the right support and conducive environment, sustainable entrepreneurship stands poised to be a potent force in reducing unemployment and propelling economic growth across the region.

## 7 | LIMITATIONS AND DIRECTION FOR FUTURE RESEARCH

While this study has made significant strides in uncovering novel findings and contributing to the existing literature, it is essential to acknowledge its inherent limitations. The primary constraint lies in the scope of countries examined. Because of data availability constraints, the study focused on a subset of 21 out of the 48 countries within

SSA. Consequently, a sample gap exists, potentially affecting the generalizability of the study's conclusions. In light of these limitations, this research underscores the need for future investigations to adopt a more comprehensive research design—one that encompasses a broader and more representative array of SSA countries. By doing so, subsequent studies can enhance the robustness of their findings and provide a more holistic understanding of the region's economic dynamics and sustainable entrepreneurship landscape.

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