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Article

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CONTRIBUTION OF ISLAMIC FINANCE TO INCLUSIVE GROWTH: A COMPARATIVE STUDY OF THE WEST AFRICAN ECONOMIC AND MONETARY UNION (WAEMU) AND NORTH AFRICAN COUNTRIES

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ABSTRACT

Purpose — In recent years, economic growth in the West African Economic and Monetary Union (WAEMU) has been positive, but the precariousness of the population has remained virtually unchanged. Thus, the search for inclusive growth should be considered, and that is the subject of this comparative study to determine the contribution of Islamic finance to inclusive growth.

Design/Methodology/Approach — First, this paper sets up an inclusive growth index to undertake a comparative study between WAEMU countries and North African countries before and after the integration of Islamic finance in order to examine the impact of Islamic finance in these countries. The paper then compares these two areas, WAEMU countries and North African countries, variable-by-variable, using a Student's t-test over the period 2010–2023. The group of North African countries included in this study is found to have a high Islamic finance development indicator compared to the WAEMU zone.

Findings — The results show that growth is more inclusive in North African countries. However, the lack of data on Islamic financial institutions operating in the countries examined makes it impossible to determine the extent of their contribution to the economies of these countries.

Originality/Value — The studies that have dealt with this topic have been limited to the relationship between finance and the components of inclusive growth. Others have chosen the quality of economic growth as the variable for inclusive growth. However, this study goes beyond that by showing the influence of Islamic finance on an index of inclusive growth that takes into account eight components. This adds value to the existing literature.

Keywords — Inclusive growth, Islamic finance, North Africa, West African Economic and Monetary Union (WAEMU)

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INTRODUCTION

The West African Economic and Monetary Union (WAEMU) is an economic bloc composed of eight countries (Benin, Burkina Faso, Guinea-Bissau, Ivory Coast, Mali, Niger, Senegal and Togo), all of which share one central bank, the Central Bank of West African States (BCEAO). In recent years, this economic bloc has remained resilient in the face of economic turbulence. It recorded an average growth of 5.7 per cent in the first quarter of 2023, and the forecast for the last quarter of 2023 was 6.1 per cent (BCEAO, 2023a). Economic growth is one of the key indicators of a nation's economic progress; however, the Union's growth conceals a range of socio-economic vulnerabilities. It faces one of the highest poverty levels in the world, the lowest human development index, and high unemployment rates compared to benchmark countries (UNDP, 2018). This shows that economic growth in the region benefits only a small portion of the population. It should be noted that in 2021, Mali's gross domestic product (GDP) per capita was USD881.1 per year, and 46.6 per cent of the population lived below the poverty line. Similarly, Burkina Faso has a per capita GDP of USD893.1, with about 43 per cent of the population living below the poverty line. Ivory Coast has a per capita GDP of USD2,290, with 39.5 percent of its population living below the poverty line in 2018 (World Bank, 2023). Added to this is a financial system that does not play its intermediary role well. According to past literature, the financial system lacks the needed dynamism and sophistication (Jean-Philippe & Adeline, 2018). Thus, inclusive growth would be welcome in this Union.

The theme of inclusive growth began to gain momentum in 2006 after the publication of a World Bank report on equity and development (World Bank, 2006). Inclusive growth is growth that benefits all segments of the society without distinction. In other words, growth must not only be high, but it must also allow a large number of the population to participate and use its benefits, which will result in human and economic development (Klasen, 2010). This will be reflected in an improvement of the living conditions of the nation in terms of health, education, infrastructure and access to finance. Positive economic growth is desirable, but inclusive growth goes beyond this to generate a sustainable increase in wellbeing, which implies an equitable sharing of growth dividends among individuals and social groups (OECD, 2014). GDP has been used as an indicator of economic success for a long time, but researchers have criticised it as insufficient to measure wellbeing (Joseph *et al.*, 2009). This means that inclusive growth, beyond income and wealth, takes into account non-monetary factors such as health and education.

In this regard, this work is part of the search for a means by which WAEMU can achieve inclusive growth that would benefit a large number of its population. The objective of this paper is to examine the extent to which the financial system, and more specifically the Islamic financial system, would be a key means to contribute to inclusive growth. It may be noted that advocates of Islamic finance claim it promotes sharing and fights against exclusion. This work should raise awareness at the level of institutions and leaders because the Islamic financial system is still very neglected in the African region. ICD-Refinitiv (2022) reported that Africa represents only 2 per cent of the global Islamic finance industry, with the WAEMU area having only 18 Islamic financial institutions (BCEAO, 2023b).

The analysis shows that these WAEMU countries have maintained positive economic growth but without significantly reducing the rate of poverty. It suggests that this growth is not inclusive and that Islamic finance could be an important lever for inclusive growth in the WAEMU area.

The paper is organised as follows: the next sections review the past literature on this area of research, provide details on the methodology adopted, present and discuss the results, proffer recommendations, and conclude the study.

LITERATURE REVIEW

The scarcity of empirical or theoretical literature on the impact of finance on inclusive growth is due to the complexity of the definition and the non-existence of indicators of inclusive growth. Indeed, there is no clear and official definition of this concept. However, its impact on development comes from the statements of major institutions and researchers on development policy. Nonetheless, there is a consensus that it is growth that creates opportunities and makes them accessible to all—growth that allows all members of a society to participate in and contribute to its process on an equal basis regardless of social rank (Ifzal & Zhuang, 2007).

The sentiment that inclusive growth is ethical growth (Stiglitz, 2012) accords with Islamic teachings that all members of a society should have the same opportunity; they should benefit equally from natural resources, and society should provide the disabled with the conditions for a dignified life, including housing, education, health and other facilities (Mahmoud *et al.*, 2012). Inclusive growth is conceptualised through four dimensions: economic inclusion, social inclusion, political inclusion and spatial inclusion (an indicator that measures connectivity, access to the nearest market and public services) (Hakimian, 2016). Based on this assertion, inclusive growth is considered to be growth that promotes the well-being of the population, provides and equitably shares opportunities with the population in terms of easy access to financial services, a good health and education system, and helps in the reduction of unemployment, poverty and inequalities (Ifzal & Zhuang, 2007). Thus, within both Islamic and conventional finance, inclusive growth aims to achieve these objectives.

Conventional Finance and Inclusive Growth

The countries under review in this paper are those in which the conventional financial system dominates. These countries have been able to maintain resilient growth despite economic turmoil. However, this positive growth hides numerous scourges: unemployment, poverty and other challenges. This situation confirms the work of Kuznet (1955), who propounded that growth increases inequality.

To achieve inclusive growth, access to opportunities must be expanded so that a large proportion of the population can participate, regardless of their individual circumstances (Felipe, 2012). Indeed, inclusive growth is an integral part of the objectives of major institutions today. The OECD report (2014) contains statements about the importance of inclusive growth from the World Bank (WB), Asian Development Bank (AfDB), United Nations Development Programme (UNDP) and European Union (EU). While these institutions have different strategies, they all agree that achieving inclusive growth requires not only strong economic growth but also reaching a wide range of sectors and a significant portion of a country's workforce (OECD, 2014).

In order to achieve this objective, it is necessary to give the entire population equal access to markets and resources, to prioritise productive work, which alone creates surplus value, and then to consider the redistribution of income to increase income. These aims can be achieved through the ease of access to the financial system by both small and medium-sized enterprises (SMEs) and households. The financing of enterprises will allow for the creation of jobs and also the changeover of some from informal to formal businesses, which will be beneficial to the state. Access to financial services by poor households also generates savings.

A study carried out on a few countries of the Organisation for Economic Co-operation and Development (OECD) shows that the financial system increases income inequalities by granting credit to the highest income earners to the detriment of the lowest income earners (Cournède *et al.*, 2015). High-income earners have the advantage of benefiting from loans because the banks find them more profitable. This situation is not only a handicap for inclusive growth, it is also a long-term handicap for economic growth. This selectivity in the provision of finance is not limited to enterprises but often affects other sectors in African countries.

For the International Monetary Fund (IMF), inclusive growth can only be achieved from a debt, investment, growth and natural resources (DIGNAR) model. This model examines the effects of different public investment profiles, levels of investment efficiency and oil revenue trajectories on the accumulation of public capital, savings and public debt. The model is based on the proper functioning of the financial system. A financial system that plays its role well is said to be capable of absorbing enough resources through savings to place them into investments and help the state in its budgetary policies through a good allocation of its resources.

From these and previous recommendations, it is clear that the financial system can contribute to inclusive growth, but it must be developed with the support of the authorities. A study conducted on Cameroonian data is no exception. Using the Bayesian model averaging method, the study reveals how finance could contribute to inclusive growth (Ningaye, 2017). The results of this study show a low level of growth inclusion arising primarily from microfinance products that were made available to the poor population but were not adapted to their needs. The lack of a financial product tailored to a segment of the population is a flaw in the financial system or a handicap to financial inclusion. However, when finance is inclusive, it allows the economy to be pushed onto the path of sustainable growth because it will generate easy and affordable access to a large majority of the population. It will also enable agents to plan for consumption and investment (Corrado & Corrado, 2017).

In addition, researchers examined the role of institutions in the pursuit of inclusive growth through migrant remittances (Cha'ngom & Tamokwe, 2018). Using the generalised method of moments in 24 sub-Saharan African countries from 1984–2014, the study showed that migrant remittances contribute positively to inclusive growth, but only if financial institutions respect the rules and laws in these countries. Therefore, governments should participate in improving the quality of institutions as they can help the beneficiaries of these funds to allocate their remittances properly.

In addition, other researchers show the effect of finance on inclusive growth by other methods. An empirical study conducted over the period 2000–2016 on 54 African countries revealed the effect of public debt on inclusive growth (Jennifer *et al.*, 2019). The results of this study show that the size of the government influences inclusive growth positively and the size of debt influences inclusive growth negatively. Therefore, governments have to reduce public debt and make a good allocation of its borrowings to create jobs and provide training to a large part of the population. These optimal allocations could positively contribute to inclusive growth.

Another research conducted in Nigeria and India shows the effect of borrowing on inclusive growth (Chigbo *et al.*, 2020). The results of this study show that borrowing has a positive influence on inclusive growth in Nigeria but not in India. Therefore, Nigeria should take advantage of borrowing instead of aid to improve its inclusive growth. In the same vein, another study links finance and inclusive growth in sub-Saharan Africa. Using the generalised moment method, it shows that the informal sector has an impact on inclusive growth and the relationship between inclusive growth and financial inclusion is in the form of an inverted U-shape (Amponsah *et al.*, 2021).

In view of this literature on the relationship between conventional finance and inclusive growth, it is clear that there is a causal effect between these two variables. In African countries, this effect is often insignificant because of the quality of the financial institutions prevailing in those countries. Moreover, a review of the existing literature shows the absence of a good indicator to measure inclusive growth. Most of the works done in this regard have chosen the quality index of economic growth (e.g., Omar & Laamire, 2021; Amponsah *et al.*, 2023). However, researchers and large institutions are now focusing on the search for inclusive growth because of the challenges posed by economic growth and its inability to measure well-being. So, using the same measure of growth to capture inclusive growth has its own disadvantages.

Islamic Finance and Inclusive Growth

Several works (Andersen & Tarp, 2003; Patrick & Kpodar, 2015; Elmehdi, 2016; Youssouf Ali, 2022) show the positive impact of Islamic finance on economic growth. However, none explicitly addresses the link between Islamic finance and inclusive growth empirically.

It should be noted that Islamic law (*maqāṣid al-Sharīʿah*) advocates for the welfare of all people through the safeguarding of faith, life, intellect, family and wealth (Burhanudin *et al.*, 2023). Islamic finance, having its principles based on Islamic law, is against any kind of marginalisation and promotes the inclusion of all social strata in the economic system to eradicate poverty.

Having discovered that Islamic finance has successfully contributed in the reduction of poverty in the Organisation of Islamic Cooperation (OIC) countries, Mahmoud *et al.* (2012) argued in favour of more diversity of Islamic finance products for poverty reduction and inequality. Thus, based on this assertion, SMEs which have been marginalised by the conventional financial system now find financing through the Islamic financial system.

Aware of certain restrictions concerning the financing of SMEs, a group of practitioners studied, using the Ordinary Least Squares (OLS) method and the fixed effect model, the veracity of the claim that SMEs are generally underfunded. The results of their study show that Islamic banks in countries such as Turkey are more willing to finance SMEs than conventional banks (Ahmet *et al.*, 2016). Compared to African countries, Islamic finance in Turkey has achieved a good level of integration in the economy and can help SMEs better contribute to the economy.

A study conducted in Senegal confers similar results despite the weakness of the integration of Islamic finance in the country. It shows the predisposition of Islamic banking and Islamic microfinance to finance SMEs. Based on an econometric estimation of non-cylindrical panel data on a sample of 100 microfinance institutions (MFIs) based in Senegal over the period 2009–2017, the study shows that Islamic banks and MFIs participate in the financing of SMEs and help to reduce the financing gap of these enterprises. Access to Islamic financing also helps to increase the use of banks in Senegal and reduces exclusion (Seck, 2019).

In order to show the impact of Islamic finance on financial inclusion, other researchers conducted an economic regression using a sample of member countries of the OIC. The results of their study show that countries with a good practice of Islamic finance manifested a good level of financial inclusion and that SMEs in these countries had easy access to finance (Naceur *et al.*, 2015). Another study by Kurunkatil (2019) which sought to study Islamic finance and exclusion, conducted data analysis of a sample of 1,000 customers of both Islamic and conventional banks. The author found that the Islamic financial system is best adapted to combat exclusion and is the system that takes into account the lower social strata of the society the most. Indeed, this layer of the population is generally affected by socio-economic problems.

In order to understand the impact of Islamic finance on the socio-economic situation in West African countries, two researchers conducted a comparative study between countries practising Islamic finance and those not practising it. The evidence of their findings shows that countries practising Islamic finance manifest a good level of health, education and easy access to electricity and the Internet (Djoufouet & Nzongang, 2019).

In addition, work has been carried out to gain insight into the provision of Islamic or participatory financial products in the financing of the social and solidarity economy in Morocco. These authors conducted an empirical study based on a sample of 40 cooperatives. The results show that Islamic finance has given a new lease of life to social and solidarity-based entrepreneurship and indicate that the authorities should give Islamic finance a boost to further increase its impact (Drissi & Angade, 2020).

Furthermore, the effect of Islamic finance on income inequality in sub-Saharan African countries is demonstrated from an empirical study using generalised moments. The results of this study show that access to Islamic finance contributes to the reduction of income inequality in sub-Saharan African countries, as do other variables such as enrolment and investment in secondary education (Ngono, 2021).

To this can be added the study by researcher Youssouf Ali (2022), which examined the impact of Islamic finance on economic growth in the WAEMU zone. This study shows a small impact of Islamic finance on economic growth. This is explained by the weak integration of Islamic finance in this zone and also by the insufficient data on the Islamic financial system. The study of Majidi and El Yousfi (2022) equally reveals a positive causality of the development of the Islamic financial system on growth in ten Middle East and North African (MENA) countries.

In view of the above literature review, it must be acknowledged that the emphasis is on the quality of Islamic financial institutions to have an impact on inclusive growth. In developing countries that are members of the Islamic Development Bank (IsDB), the problem of financing SMEs through Islamic finance is said to be due to the weak infrastructure of Islamic finance institutions (Saaid Ali, 2013). Added to this are the managerial incapacity of SMEs and lack of appropriate structure (Hussein, 2016). In addition, like conventional finance, Islamic finance also needs the support of the relevant authorities.

The above literature review also reveals that there is a lack of literature on the impact of Islamic finance on inclusive growth per se. The works cited in this literature review dealt more with the components of inclusive growth such as poverty, inequality, financial inclusion and SME financing. In addition, there is a lack of studies linking Islamic finance to the indicators of inclusive growth. This paper will therefore address these gaps.

RESEARCH METHODOLOGY

This work involves the development of an inclusive growth index and a comparative study between seven WAEMU countries (Benin, Burkina Faso, Ivory Coast, Mali, Niger, Senegal and Togo, excluding Guinea Bissau because of unavailability of data) and seven North African countries (Algeria, Tunisia, Mauritania, Morocco, Egypt, Sudan and Libya) with regard to the contribution of Islamic finance to inclusive growth.

The comparative study was performed using the Student's parametric test method. Researchers tend to conduct comparative studies in several areas between two samples. The Student t-test, proposed in 1908 by William Sealy Gosset, is one of the most widely used tools for this type of analysis (Student, 1908). This test is applied to make a comparison between two independent samples (Ingrand, 2018). Researchers have used it to compare the level of wellbeing between African countries practising Islamic finance and African countries not practising Islamic finance (Djoufouet & Nzongang, 2019).

The Student's parametric test is a test that compares the means of two samples to see if they are statistically significantly different. In the case of this study, an independent unmatched Student t-test was done for two groups A and B with respective means, and size, $mA\ mB\ nA\ nB$ and common variance S:

$$t = \frac{mA - mB}{\sqrt{\frac{S^2}{nA} + \frac{S^2}{nB}}} \tag{1}$$

However, a certain number of hypotheses must be respected: there must be no link between the two groups, there must be no outliers, the data must be normally distributed (normal law), and finally, there must be homogeneity of variances.

For the inclusive growth index, some researchers have developed their own definitions. Klasen (2010) and McKinley (2010), to name but two, are researchers who have tried to develop indicators of inclusive growth. Having different methods, they both agree that growth is inclusive when a large majority benefits from its spillovers. In this study, the method of setting up the inclusive growth index is inspired by the method adopted by Kacem *et al.* (2019) and that adopted in the case of the African Development Bank by Hakimian (2016). This method has been used by some researchers to also measure inclusive growth in some African countries (Whajah *et al.*, 2019).

Thus, the calculation of the overall inclusion score for each country uses the following formula:

$$Sji = 100 . \left(\frac{mj - rj}{mj - 1}\right) \tag{2}$$

$$\sum_{i=1}^{m} Sji . Wj \tag{3}$$

Where

- *Sji* is the standardized score for indicator *j* ranking for country *i*
- *Wj* is the weight of indicator *j*
- *i* = 1,… m: country *i* included in the dataset
- *j* = 1,… n: indicator *j* included in the dataset
- *rj* is the country ranking for indicator *j* (in descending order) and *mj* is the total number of countries for which data for indicator *sj* are available.

Thus, the inclusive growth index that will be implemented thanks to the above formulae will serve to make the comparison between the seven North African countries and the seven WAEMU countries, as mentioned earlier. This first comparison will be made over two periods: before the regulation of Islamic finance in the WAEMU zone by the authorities, i.e., over the period 2000–2009, and after the recognition of the Islamic financial system in the regulations, i.e., 2010–2023. The comparison will allow us to see the contribution of Islamic finance in inclusive growth while considering that the countries of North Africa have a higher level of the development indicator of Islamic finance compared to the WAEMU countries (ICD-Refinitiv, 2022).

Second, this study undertakes a variable-by-variable comparison of the two zones in the samples to determine the variables on which the contribution of Islamic finance is more accentuated. This comparison will be made over the period 2010–2023 (post-emergence of the Islamic financial system in the WAEMU zone).

The variables used are presented in **Table 1**. The 14 variables are divided into eight components: economic growth, labour force and employment, health and demography, education, gender, environment, inequality and poverty, and governance.

Table 1: Parameter Set

Components	Variables	Abbreviations	Definitions	Sources
Economic growth	GDP per capita growth (%)	GDP/C	GDP per capita growth	World Bank and OECD database
Labour force and employment	Employed workers (% of the active population)	T_SAL	Employees in paid employment with an employment contract	
	Employment/population ratio, persons aged 15 years and above (%)	R_EMP15	The percentage of the working-age population that was employed during the reference period	
	Employment/population ratio, 15–24 years old (%)	R_EMP24	The percentage of the population between 15 and 24 years of age employed during the reference period	

Table 1: Parameter Set (Cont.)

Components	Variables	Abbreviations	Definitions	Sources
Health and demography	Life expectancy at birth (years)	ESP_life	The number of years a newborn would live	World Bank and OECD database
	Under-five mortality rate	Tx_Mort	The probability that a newborn child will die before the age of five	

	Current health expenditure (% of GDP)	Dp_health	Current expenditure on health as a percentage of GDP	
Education	Girls to boys ratio, enrolled in secondary education	R_G/B_INS	The parity index between girls and boys enrolled in public secondary schools	
	Total public expenditure on education	DPSP_EDCT	Public expenditure on education as a percentage of total public expenditure	
Gender	Gender inequality index	Inequality	Gender inequality index	
Environment	Environmental performance index	EPI	Index to assess, compare and improve the effectiveness of environmental policies	EPI website
Inequality and poverty	GINI index	Gini	Index showing the distribution of variables (salary, income, assets) within a population	World Bank and OECD database
	Poverty gap at the national poverty line	ECRT_PAUV	The poverty gap at the national poverty line. The average deficit with respect to the poverty line (counting the non-poor as having a zero deficit) as a percentage of the poverty line	
Governance	Corruption perception index	CPI	The level of corruption in a country	Transparency International

Source: Authors' own

RESULTS AND DISCUSSION

After the implementation of the inclusive growth index, the results of the two periods are presented in **Table 2**. The table shows the results of the inclusive growth index over two periods.

Over the period 2000–2009, Tunisia ranked first in the group of North African countries. This position can be justified by the work done by the Tunisian government in promoting Islamic finance as a source of financing the economy. As Toussi (2011, p. 45) states, 'Islamic finance is now an important part of development programmes in Middle Eastern and North African (MENA) countries, and is also gaining ground in the region's financial landscape. It is a fast-growing activity, which meets the financial needs of individuals in accordance with their social and religious values'. This promotion of Islamic finance has also been a lever for the emergence of Islamic finance and has aroused interest among the general public and businesses.

Tunisia is followed by Algeria, Morocco, Libya and Egypt. The position of these countries can be justified by their contribution to the capital of the Islamic Development Bank. Egypt and Algeria are among the front-runners of the Islamic financial system. Several writings cite Egypt as the country where the first Islamic bank was created (Lahlou, 2015).

Table 2: Comparison of Inclusive Growth Index over the Period 2000–2009 and 2010–2023 between the Two Zones

North African Countries (Ranked in descending order)	**2010–2023**		**North African Countries (Ranked in descending order)**	**2000–2009**
Tunisia	58,9747739		Tunisia	61,6775665
Algeria	48,3143906		Algeria	50,3640547
Morocco	48,0772179		Morocco	48,0091638

Libya	43,7893105		Libya	47,0276468
Egypt	42,3597149		Egypt	46,2407568
Mauritania	19,6446266		Sudan	31,2788724
Sudan	18,8211857		Mauritania	22,3014415
Mean	**39,9973172**		**Mean**	**43,8427861**
WAEMU Countries (Ranked in descending order)	**2010–2023**		**WAEMU Countries (Ranked in descending order)**	**2000–2009**
Burkina Faso	37,8238614		Burkina Faso	36,4944988
Senegal	35,21419		Senegal	30,879829
Benin	32,5114414		Mali	30,4416747
Niger	31,0057878		Benin	29,0417081
Ivory Coast	30,4328664		Ivory Coast	26,3084175
Mali	28,5857013		Niger	25,8936985
Togo	22,9398648		Togo	21,4348002
Guinea Bissau	18,5073475		Guinea Bissau	15,9064453
Mean	**29,6276326**		**Mean**	**27,050134**

Source: Authors' own

These North African countries have a higher inclusive growth indicator than countries in the WAEMU zone. On the other hand, two countries in the North African zone, Sudan and Mauritania, have a lower indicator. The low level of inclusive growth in Sudan is justified by the socio-political problems the country has been experiencing for several years, especially in view of the Western sanctions the country faced that have had a significant impact on the conditions of the people. As for Mauritania, it is still at an embryonic stage in the integration of Islamic finance. So, considering the average for the groups, inclusive growth is found to be higher in the group of North African countries than in the group of WAEMU countries. The difference is more than 16. This prompts us to analyse the inclusive growth indicator over the period 2010–2023, the period during which Islamic finance is being integrated into the WAEMU zone.

Over the period 2010–2023, it can be seen that inclusive growth is still high in the countries of the North African region compared with the WAEMU region, even though some countries have seen falls in the indicator. Tunisia remains at the top of the ranking. Morocco has seen a slight improvement in inclusive growth. This can be seen from the Bank Al Maghrib statistics. Participatory financing by Moroccan Islamic banks rose from 4,556,528 dirhams in 2018 to 26,454,480 dirhams in 2023 (Bank Al Maghrib, 2023). This improvement is associated with the development of five Islamic banks over the same period.

The findings also show that the gap between the two groups (North African countries and WAEMU countries) has narrowed between the period 2000–2009 and 2010–2023. It went from 16 to 10, which would suggest the integration of Islamic finance in the WAEMU zone. This is due to the creation and takeovers of various Islamic finance institutions in the WAEMU zone. Between 2009 and 2010, Tamweel Africa Holding acquired the shares of Dar al-Maal al-Islami in the Islamic banks of Guinea, Niger and Senegal, increasing the capital and improving the strategy of these banks (Africa, 2023).

These results show that Islamic finance contributes to inclusive growth. This prompts us to look further by comparing the variables between the two groups of countries. Thus, after having examined the influence of Islamic finance on the inclusive growth index, the study continues to examine the influence of Islamic finance on the inclusive relations between the countries of the WAEMU zone and the North African countries. After satisfying the normality and heteroscedasticity tests, the Student's t-test is performed on the following two hypotheses: H0: equality between the two means and H1: no equality between the two means. The results are depicted in **Table 3**.

The first results revealed that countries with a high Islamic finance development indicator manifested a good level of inclusive growth compared with WAEMU countries. **Table 3** provides a variable-by-variable comparison. For the first variable (growth in GDP per capita), the Student test is not significant, which means that the H1 hypothesis is rejected and the H0 hypothesis is accepted. However, the difference in means shows that GDP per capita growth is better in the WAEMU zone than in North Africa while growth is more inclusive in North African countries. If the definition of inclusive growth is referred to, it can be said that in the WAEMU countries growth only benefits a small part of the population. This justifies the study's findings that the Islamic financial system is more participatory, allowing more opportunity to people to participate in the economy.

As for the other variables, they are all significant. Therefore, the H0 hypothesis is rejected and the H1 hypothesis is accepted, which means that there is a difference between these variables in these country zones.

With regard to the variables of the active population (R-EMP15) and employment component (R-EMP24), they are higher in the WAEMU countries than in the North African countries, whereas the T-Sal variable (paid employment) is higher in the North African countries. This shows that in WAEMU countries, the working population is more involved in the informal sector and that young people tend to enter the labour market without completing their studies. The early entry of young people in the workforce can be explained by their lack of means to complete their studies, despite the efforts of the authorities (DPSP-EDCT) in funding the education system in WAEMU countries.

The result of the ECRT_PAUV variable shows once again that the level of poverty is high in countries with a low level of the Islamic finance development indicator, i.e., countries in the WAEMU zone. It has been proven that the financial system developed reduces poverty through the granting of credit. The WAEMU zone is still a long way from achieving this, as poverty is still at its worst.

The granting of credit begins with the opening of an account, yet inclusion in the WAEMU zone is among the lowest in the world, and several reasons are cited to explain this in the Global Findex surveys—including lack of means, religion, lack of documents, distance from banks, etc. (Demirgüç-Kunt *et al.*, 2021). Many of these reasons do not apply for the North African countries which have a higher inclusion level achieved through a more inclusive banking system.

Table 3: Comparative Study of Inclusive Growth Variables

Variables	Regions	Min.	Max.	Mean	Student Test
GDP/C	North African Countries	-47.89	96.95	0.6650882	0.35
	WAEMU	-7.314	8.499	1.991713	
	Difference			-1.3266	
R_EMP15	North African Countries	34.53	45.1	39.3145	0.0001***
	WAEMU	42.415	79.266	61.1097	
	Difference			-21.7952	
	North African Countries	7.538	29.868	18.2814	

R_EMP24	WAEMU	21.718	71.136	41.365	0.0001***
	Difference			-23.0844	
R_G/B_INS	North African Countries	0.84610	1.191	0.9779	0.0001 ***
	WAEMU	0.537	1.2002	0.8213	
	Difference			0.1566	
ESP_life	North African Countries	63.016	76.474	70.73014	0.00001***
	WAEMU	55.023	68.526	60.0057	
	Difference			10.7243	
Tx_mort	North African Countries	10.8	75.9	30.9095	0.0001***
	WAEMU	38.6	134.1	92.59	
	Difference			-61.6873	
ECRT_PAUV	North African Countries	1.18	46.5	19.478	0.0001 ***
	WAEMU	35.2	48.7	43.523	
	Difference			-24.04	
T_SAL	North African Countries	41.8175	78.55	59.41896	0.00001***
	WAEMU	4.7069	34.322	17.57184	
	Difference			41.8471	
Dp_health	North African Countries	0.7315	4.9170022	2.3413	0.0001***
	WAEMU	0.4135	2.9201	1.086288	
	Difference			1.25505	
DPSP_EDCT	North African Countries	5.0396	24.84	15.63298	0.0005***
	WAEMU	9.069	26.1439	18.7981	
	Difference			- 3.1651	
IPC	North African Countries	11	43	29.79365	0.01**
	WAEMU	16	45	33.5833	
	Difference			-3.78968	
EPI	North African Countries	27.6	63.47	43.5147	0.0002***
	WAEMU	25.8	49.52	35.7279	
	Difference			7.7868	
Gini	NorthAfrican Countries	27.6	39.5	32.4928	0.0114**
	WAEMU	31.5	50.7	39.8523	
	Difference			-7.3595	
Inequality	North African Countries	0.166	0.663	0.4616	0.032**
	WAEMU	0.502	0.75	0.6171	
	Difference			-0.15547	

Note: * = Significant at 10 per cent
Source: Authors' own

Many people are marginalised by the traditional financial system in the WAEMU zone. On a large scale, this inequality can be visualised by the inequality and Gini variables, which are poor in this zone compared to North Africa. As far as the CPI is concerned, it is poor in North African countries compared with the WAEMU zone. This runs counter to the Islamic financial system.

On the whole, it is noted that countries with a good level of Islamic finance practice justify a good performance of the variables used. This suggests that Islamic finance is a lever to be used for rapid inclusion of growth and also for poverty reduction.

CONCLUSION

The WAEMU has maintained resilient growth in recent years. Despite this positive growth, the Union has not been able to resolve some of its socio-economic problems such as inequality, unemployment, high levels of poverty, among others. These vulnerabilities suggest that this positive economic growth is benefiting only a small section of the population. This motivates the search for inclusive growth rather than economic growth that hides substantial problems.

Islamic finance is a financial system that advocates the sharing of wealth and the inclusion of all social strata. This motivates the present study to show the impact of the Islamic financial system on inclusive growth. In this respect, the paper has developed an inclusive growth indicator to capture the level of inclusive growth in WAEMU and North African countries. The paper then compares these two groups of countries to see the impact that Islamic finance can have on the inclusive growth index. North African countries are considered to have a good level of Islamic finance practice compared to WAEMU countries.

The results show that the countries examined in this study that have a good practice of Islamic finance also rank well in the inclusive growth index and have good scores in terms of the variables used to compile this index. This suggests that Islamic finance contributes to improving socio-economic development and would be a way for WAEMU countries to improve their level of inclusive growth. Aware of the limits to economic growth, most countries and major institutions are looking for solutions to achieve inclusive growth. This study presents its contribution to this search in a practical way. It shows a viable way for WAEMU countries to improve inclusive growth.

The study is limited by the unavailability of data on Islamic financial institutions in the countries selected in the sample. This makes it impossible to determine the contribution of Islamic finance to the global economy. It is therefore recommended that the authorities of the WAEMU countries and those of North Africa step up promotions and training in the Islamic financial system, as this is the system that will be able to motivate the inflow of capital.

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DECLARATION

Credit Authorship Contribution Statement

- Ali Bamba Youssouf: Conceptualisation, Data curation, Formal analysis, Survey, Methodology, Project administration, Tools, Software, Visualisation, Drafting – Original draft, Drafting – Evaluation and modification.
- El Hachloufi Mostafa: Methodology, Project management, Validation, Assistance

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The authors declare that they have no known competing financial interest or personal relationships that could have influenced the research work.

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Data Availability
Data will be made available on request to the authors.

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Appendix
None