sciendo
Econometric Research in Finance • Vol. 6 • No. 1 

# Does Foreign Presence Influence the Level of Firm Technical Efficiency? Evidence from Africa

**Anthony Orji**[♣], **Jonathan E. Ogbuabor**[♣], **Gabriel Chiangi Aza**[♣], and **Onyinye I. Anthony-Orji** [*♣]

[♣]University of Nigeria, Nigeria

Submitted: September 27, 2020 • Accepted: December 20, 2020

ABSTRACT: This study investigates the impact of foreign direct investment on the level of firm technical efficiency in West Africa. Firms from Nigeria, Ghana, Sierra Leone and the Gambia were sampled due to the fact that they used to belong to the British Empire. The data, sourced from the World Bank enterprise survey, covers the period from 2006 to 2018, with the sampled countries having data for different years. A time varying stochastic frontier production function for panel was developed for this enquiry. The findings of the study show that foreign direct investment has a significant and positive impact on both technical efficiency and productivity of firms in West Africa. Controlling for other effects, international trade and firm size both have positive and significant effects on firm level technical efficiency. Therefore, policies should be aimed at encouraging more inflows and maintenance of the stock of foreign direct investment to avert divestments. This includes, but is not limited to, ensuring sociopolitical stability and introducing policies that would remove bureaucratic bottlenecks from the path of direct investment inflow and simplify the process of doing business in these countries.

**JEL classification:** D22, D24, F21, F23.

**Keywords:** Foreign Direct Investment, Technical Efficiency, Stochastic Frontier Analysis.

[*]Corresponding Author. E-mail: onyinye.anthony-orji@unn.edu.ng

DOI: 10.2478/erfin-2021-0001

# 1 Introduction

The world has become a global village, not only because of communication technology but also in terms of economy. International economic relations have assumed a state where cross border investments are promoted as countries inter-depend on themselves (Bassiratu, 2018; Orji et al., 2019). Although economic inter-dependence and cooperation among nations is not a new practice, as it was an important practice of medieval economies, it took a new turn at the beginning of the sixteenth century (Conteh, 2014). Around this period, due to imperialism, European countries built empires around the world aimed at acquiring resources in return for a little expense (Pakenham, 1991). This made foreign investment the thrust of colonial government policy. This was the reality of the seventeenth and the eighteenth century. Global economic relations, as they are nowadays, were birthed with the establishment of modern Westphalia states (Conteh, 2014), and purred by the industrial revolution of the eighteenth century as greater cross border economic ties were realized. One of the ways through which nations cooperate in modern days economically is through foreign direct investment (FDI).

In general terms, foreign direct investment (FDI) is considered a vehicle ferrying tangible and intangible assets such as, for instance, patents, new technology, brand names, better product designs, management skills from developed and technologically advanced economies to developing economies (Arnold and Javorcik, 2009; Wang and Wong, 2016; Anthony-Orji et al., 2018). These assets which are superior, and generally not available to firms in the host country, can spill to local firms; even to those not related or affiliated to the FDI Multinational Corporations (MNCs). This affects efficiency in the receiving country. Thus, while drawing development policy plans, countries consider FDI as an integral part of the whole process as they aim to attract it. To achieve this, they offer a wide range of fiscal and financial incentives to foreign firms such as tax breaks, subsidies, among others (Orji et al., 2015; Wang and Wong, 2016).

Not surprisingly then, African leaders, like other developing countries' rulers, have become gracious to foreign investors by offering fiscal and investment incentives to attract and retain FDI – just as there has been considerable debate for many years on the spillover effect of FDI on domestic firms' performance. Studies on FDI spillovers have attracted attention from both academia and policy makers since the publishment of the pioneering work of Caves (1974).

Although inflows to Africa have been negligible compared to the world total flows, African leaders have continued to seek ways to bring more direct inflows to the subregion hoping its spillovers would spur efficiency (Orji et al., 2014). In 2016, FDI inflows to West Africa rose by 12% to \$12.6 billion, driven by recovering investment into Nigeria. As oil output in Nigeria declined to historic lows in 2016, FDI remained relatively depressed and fell by 11% to \$11.3 billion in 2017 in West Africa (UNCTAD, 2018).

Even with turning events in political and economic reforms, recurring vigor in all quarters to attract FDI, the effect of such an important asset on technical efficiency of