## Distance to technological frontier and education: Alternatives for economic growth for developing countries

## Fernando Velasquez Torrez Saúl R. Quispe Aruquipa

## Abstract

We analyze the situation of developing economies with respect to their position around the world technology frontier. Based on Vandenbussche et al. (2006) and Acemoglu et al. (2006), we present a mathematical model of endogenous economic growth with human capital and technical progress, related to the rest of the world through distance to technological frontier. The model allows identifying how the resources for invest in human capital will be allocated, according to the proximity of the economy to the world technology frontier. A dynamic model of panel data is proposed for 121 economies in the period 1970-2015. Results show that primary education is what explains the growth rate of total factor productivity for developing economies, so that investment in this sector should be increased.

JEL Classification: C33, I20, O40

Keywords: Education, growth, human capital, technology frontier, panel data