

Chapter 7

Design of a Triple Helix Strategy for Developing Nations Based on E-Government and Entrepreneurship: An Application to Ecuador

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ABSTRACT

The arrival of Rafael Correa in Ecuador is leading to a structural transformation of the Ecuadorian economy and society with the arrival of e-Government and the introduction of the digital economy in the country. The objective of this chapter is to design a strategy based on entrepreneurship, e-Government, and higher education for creating a digital society in Ecuador (the triple helix strategy). To achieve it, the authors analyse the Ecuadorian's National Plan for Good Living 2013-2017 linked to higher education reforms and the influence of the European-based e-Government policies in Ecuador. The authors finish with some perspectives and the foreseeable impact of a digital society in this developing nation.

INTRODUCTION

After coming to power on January 15, 2007, the government of Rafael Correa has begun to digitally change Ecuador, as well as the whole Ecuadorian macroeconomic structure, resulting into the achievement of a stronger relationship

between citizens and digital public administration. A first result of this digital modernization has been reflected at the end of February 2014 with the publication of the election results just an hour after the polls closed in Santo Domingo de los Tsáchilas through the use of Smartmatic-based electronic voting system (AA.VV., 2014).

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As this type of digital voting is secured and fast, avoiding corruption practices, it will be used nationwide in the next general election to be held in 2017, according to the article 89, first paragraph, of the Organic Law on Elections and Political Organizations of the Republic of Ecuador, Code of Democracy.

One of the keys to achieve a digital economy is by reforming and impulsing higher education, focusing efforts on technical and business oriented studies. In this sense, Ecuador has approved on October 12, 2010 the Organic Law on Higher Education (LOES, from the Spanish, *Ley Orgánica de Educación Superior*) linked to the 2007-2010 National Development Plan (NDP) for the Public Sector, with the objective to reallocate the best human resources towards the highest-ranked Ecuadorian private and public higher education institutions using a system of accreditation deeply inspired by the currently used in the European Higher Education Space (EEES).

Although Ecuador is now quite far away from having “smart cities” characterized by offering advanced and innovative digital services to citizens (Piro et al, 2014), the nation is heading towards this goal. The objective of this chapter is to analyse the importance of entrepreneurship and higher education in achieving a digital society in Ecuador. To cope with this goal we will study the importance of improving higher education in Ecuador and its relation with R&D and entrepreneurship. Applied these ideas to the Ecuadorian’s National Plan for Good Living, 2013-2017, we will be able to design a triple helix strategy for developing nations. We finally draw some conclusions.

HIGHER EDUCATION, R&D AND ENTREPRENEURSHIP IN THE NATIONAL PLAN FOR GOOD LIVING, 2013-2017

Education reform in Ecuador by the Correa government began in 2009 through the General Unified

High School where technical subjects are promoted and those related to business administration. As a result, it has been introducing new technologies in education, also including university education, so the Correa’s government has closed in April 2012 the fourteen universities with lower educational and research quality in the country.

To achieve greater quality in higher education, the government has increased the amount spent on education up to 6% of the Gross Domestic Product (GDP), and it has introduced free education in primary education, to prevent illiteracy, along with courses on health and nutrition for the most economically disadvantaged population. All this combined with the training of teachers, and the increase of investment in R&D and innovation, will permit Ecuador to digitalize its economy.

It is intended in the same way to give a response to the need to eliminate the digital gap and to help to digital literacy in all population. The gap in technological development among those nations more visionary and the rest has begun to be consolidated, although this digitalization process goes very slowly but inexorably (Cáceres, 2004). Internet is a technological infrastructure for short life; however, the speed of its development in some nations has led to extend its application beyond the computers and spaces associated with them. This solution will help increasing the use of the technologies associated with Internet.

In fact, enhancing the application of Information and Communication Technologies (ICT) to the education and training systems in Ecuador will contribute to foster economic growth while reducing social differences in terms of poverty, education, and technical skills development in the nation. Increasing use of advanced digital services by the public will force regional, local and national authorities to develop the technological capabilities of the ICT sector, facilitating the development of an effective e-Government, joining a content service capability, service delivery capability and on-demand capability (Hu, Lin &

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