

## Chapter 33

# 4–Helix Entrepreneurial Ecosystems: Poverty and Violence

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### **ABSTRACT**

*The use of strategies based on 4-helix entrepreneurial ecosystems is a unique opportunity to develop emerging economies, among which is Mexico, as well as to lead to social change by strengthening the middle class. Within this process, innovation is of great importance, as it is the primary driver of the competitive advantages of nations, as well as the structural transformation of the economy. The objective of this chapter is to analyze what would be the basis for the creation of a quadruple helix model that will lead to a structural transformation for Mexico in the medium term and thus combat poverty and violence in the nation.*

### **INTRODUCTION**

More than forty years ago, Alvin Toffler published his book entitled *The Third Wave* (Toffler, 1981). In this work, Toffler describes the evolution of human society inserted in the concept of waves. Specifically, the first wave is the transition of hunter-gatherer society to an agricultural community, which occurred around 10,000 BC; the second wave is the transition of an agrarian society to the industrial society, which started 200 years ago; and the third wave is the transition of a post-industry society to the information age. This last wave has expanded very quickly, as, during the 1980s, not too many people were using computers. The fastest computer in the world at that time is probably slower than the smartphone in your hand now. But now, when we look around, it is impressive to see the accurate predictions made by Toffler, and we are impressed by how much we are dependent on information technology (IT).

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#### **4-Helix Entrepreneurial Ecosystems**

IT is transforming our society in every aspect, such as education, healthcare, entertainment, finance, transportation, engineering, and more. The IT revolution can provide us new tools and unique experiences, which are especially welcomed by new generations (millennials, centennials, and alpha-Gen). However, besides the positive and massive impact of IT, the IT revolution also brings challenges for traditional businesses, which are unfortunately classified as the sunset industry. This impact is enormous, as, in the past forty years, we have witnessed the rise and fall of various business models due to the IT revolution.

Undoubtedly, we are living in a critical era filled with ideas, opportunities, and conflicts, especially in the business field. IT-enabled e-business has changed our lives, societies, and the world (Markoff, 2005). These new business models include e-commerce, mobile payment, marketplace lending, social networking, digital advertisement, mobile-enabled transportation, virtual games, virtual entertainment, and distance education. Some of these e-business models are mature and well known, such as e-commerce. Others are relatively new.

The use of new technologies has enlarged the amount the information available to the population, even affecting such sensitive aspects as violence. Mainly born in Latin America, fleeing political persecution, gang violence, poverty, and natural disasters, migrants are often desperate for achieving their social and economic personal stability. This situation is especially visible in El Salvador, Guatemala, and Honduras, as these nations account for some of the most consequential migration streams in the Western Hemisphere (Obinna, 2019). Migratory flows that threaten to socially destabilize countries, where social tensions are transmitted spatially, as well as violence.

Some new forms of violence are directly connected to IT, primarily organized crime activity on the Internet, as “the planning, coordination, and distribution of tasks must manifest themselves in the preparatory and executive phases of the crime itself, demanding, at least, the use of communication technologies, which are thus characterized, in a first stage, as an instrumental means to enable and even to enhance their joint action” (Velasco, 2012, p. 245). But IT is also inserted into 4-helix entrepreneurial ecosystems, whose positive effects after its implementation in society can reduce violence.

The objective of this chapter is to analyze if the implementation of 4-helix entrepreneurial ecosystems can foster economic growth and social wealth in the developing countries through the fulfillment of a structural transformation for the emerging countries in the medium term and thus combat poverty and violence in some of these nations, especially in Mexico. To achieve this goal, the author will begin analyzing the main obstacles arisen from achieving this goal. We will start analyzing the problem of violence. The violence that, in the cases of El Salvador, Honduras, and Nicaragua, generates the emigration of a large part of its population, especially the youngest, to other regions and countries considered safer.

Our research questions are,

1. Does the implementation of 4-helix entrepreneurial ecosystems can contribute to reducing violence?
2. How does social entrepreneurship reduce violence?

To answer these research questions, the author will use a methodology based on applying an ELK pile to analyze the use of entrepreneurship as a tool to diminish social violence. We will see this relationship in the next section.

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