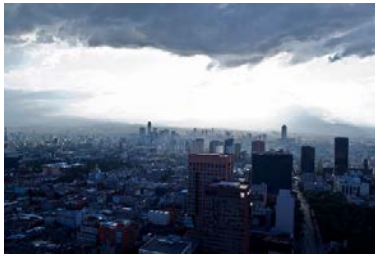




## *INNOVATION IN MEXICO: RAYS OF SUNSHINE AMONG THE CLOUDS*



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By **Jerry Haar**

The Age of Anxiety is a long, six-part poem composed by W.H. Auden in 1947. The title is also an apt description for what Mexicans are experiencing today, as well as foreign companies that do business in and with that nation.

The sources of that anxiety are four-fold. First, there is public safety. Violence in Mexico has reached record levels, eclipsing the cartel wars of 2011, with the homicide rate up 27 percent from last year. Even resort areas such as Cancún and Los Cabos have not escaped the violence, negatively impacting hotel occupancy.

Second is the renegotiation of NAFTA. Whether significant changes are made to the agreement or if it is abrogated altogether, the repercussions for Mexico will be sweeping and devastating. Third, the new U.S. tax law along with interest rate hikes in the U.S. will pressure the Bank of Mexico to raise interest rates, resulting in a slowdown in consumption and investment. Finally, the prospect of Andrés Manuel López Obrador, a leftist nationalist-protectionist, as the next president of Mexico, is spooking the private sector at home and abroad. Despite this gloomy scenario, there are a number of positive developments. Mexico is one of the emerging countries most open to foreign investment. The energy sector has been open to FDI, and the country is planning a major expansion of infrastructure.

But perhaps most exciting of all is the widespread growth and rapid expansion of technological innovation across the country and the prospect of this trend driving the nation's 21st century competitiveness.

Examining Mexico's macro-business conditions, the country ranks in the top quarter globally for ease of doing business according to the World Bank and number one in Latin America. Improvements in infrastructure and regulations as well as patent and trademark protections have strengthened the country's attractiveness for business, in general. One important indicator is Mexico's doubling the number of entrepreneurial firms over a five-year period.

The seeds of Mexico's innovation prowess were planted twenty-four years ago when two events—one negative, the peso crisis; and one positive, the signing of NAFTA—set the country on a path towards increased competitiveness. Ground zero for the new departure was the State of Jalisco which today holds 40 percent of the IT industry in Mexico with more than 650 companies producing over 100,000 jobs. The state has a young, well-educated population among the over 8 million people who live there, along with a dozen and a half technology institutes, 12 universities, design and R&D centers along with several high-tech incubators. Firms in Guadalajara, the state's largest city, include Toshiba, IBM, HP, Oracle, and Cisco.

While Guadalajara is the principal electronics and technology cluster for Mexico, there are others such as medical devices in Baja California, aerospace in Querétaro and automotive in Aguascalientes. In all cases, the nexus between the private sector and universities provides a steady stream of human capital for these clusters and spurs buyer-supplier relationships which bolster the capabilities of local providers of goods and services to larger firms.

H-1B visas) benefit the Mexican technology industry, resulting in a larger pool of highly qualified technology workers for both domestic and multinational firms with operations in Mexico or outsource IT services.

Younger generations of Mexican technologists have been creating startups across the country. The availability of a great many low cost and free software platforms along with the desire of Millennials to “do their own thing” and channel their creative desires and quest for independence into innovative applications, products and services are fueling a dynamic start-up environment in Mexico

Currently there are around 222 incubators, such as Fundación ProEmpleo, spread around the country along with accelerators such as MassChallenge, Venture Institute, and Victoria 147 for female entrepreneurs. Innovation hubs and co-working spaces such as Startup Mexico and venture capital firms such as Alta Ventures round out the ecosystem along with a proliferation of events such as Startup Weekend by Techstars.

Kaxan (video games and animation), Kubo Financiero (microfinance) and Pingstamp (mobile purchase rewards) are just a few examples of innovations emanating from Mexico.

There is no nation that has achieved success in innovation without significant support from government and Mexico is no exception. CONACYT (National Council of Science and Technology) is the prime source of financing, grants, technical assistance and scholarships;

however, other federal, state, and even municipalities are instituting measures to support innovation. Most notable is that in 2012, the Mexican government launched an ambitious 25-year Special Program for Science, Technology and Innovation (STI) to achieve economic and social sustainable growth in the country with scientific, technological and innovation development as the main pillars. Expectation is that by 2037 the private sector will finance most scientific research and experimental development.

Nevertheless, much more needs to be done to spur innovation in Mexico. This includes significantly increasing R&D funding, boosting public investment in STEM in both public and private universities and research centers, encouraging far greater collaboration between universities and industry, and expanding support activities for entrepreneurship.

Mexico at present may be shrouded in doom, gloom and anxiety; however, the nation has many enduring assets that will survive its current malaise. The nation is well-positioned to harness technology, entrepreneurship and innovation to the benefit of its public and private sectors and its citizens at large.

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