


Chapter 6

The New Concept of Disruptive Logistics: Global Sustainable Logistics 4.0 in a Future Post–New World Economic Order

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ABSTRACT

In an increasingly disruptive global environment, marked by the potential development of the Post-New World Economic Order, more innovative, effective, and efficient logistics solutions are demanded. It is necessary to offer radical improvements in logistics services through new models. It is considered necessary to define the new concept of disruptive logistics based on three fundamental pillars: globalization, digitization, and sustainability. This chapter aims to address the new concept, more effective and efficient, in a highly turbulent environment that has become disruptive, with unpredictable, substantial, and impactful changes. The most significant geoeconomics aspects that would condition a hypothetical Post-New World Economic Order are analyzed, the main factors of the global sustainable logistics are studied, and the development of the concepts of Logistics 4.0 and Supply Chain Management 4.0 is reviewed. Finally, as a result, the main aspects of the proposed new concept are analyzed.

INTRODUCTION

The COVID-19 pandemic has generated a global crisis that has completely disrupted the social, economic, and political spheres, showing the high vulnerability of most countries to this type of threat, as evidenced by their inability to respond effectively to these new crises generated by growing environmental uncertainty (Haarhaus & Liening, 2020). This crisis has altered traditional socio-economic systems, and the hypothesis that it will lead to restructuring towards a new world order, post-coronavirus, is beginning to gain strength. Furthermore, this increased risk associated with infectious diseases, resulting from

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a global change that is rapidly altering human relationships and the environment, could trigger other crises related to the imbalance of the environment, whose scope could be very harmful (McMichael et al., 2020). Phenomena such as the use and abuse of resource consumption generating significant imbalances in ecosystems, extensive migratory processes involving large population movements, population aging, the tendency to concentrate the population of many countries in large urban centers, or climate change and consequent increase in temperatures, seem to be driving forces for the contagion and spread of these diseases.

However, in the face of the potential spread of these diseases, governments' response and crisis management capacities in many Western countries have proven improvised, late, ineffective, and insufficient. And these threatening triggers are also present in other equally devastating environmental phenomena, such as the water crisis, failures in action in favor of the climate, natural disasters, combating extreme weather, man-made environmental disasters, loss of biodiversity, or other increasingly present social phenomena, such as cyber-attacks, political corruption, failures in global governance, economic war, social instability, etc. It seems that humanity will be doomed over the next few years to have to live with a succession of severe crises that will give rise to an almost permanent emergency (World Economic Forum, 2020). It seems clear that this extraordinary situation is a new opportunity to promote an in-depth process review of the global socio-economic system and its structural transformation to explore a new economic order entirely focused on the principles of sustainability and sustainable economic development.

Indeed, we are witnessing an unprecedented modification since the New World Economic Order that emerged after World War II. The global pandemic of COVID 19 has been the primary catalyst. The United States and the Soviet Union then rose as the triumphant nations, with an ideological struggle to impose and expand the benefits of their respective economic-political systems, which lasted until the disintegration of the Soviet Union in 1991. The Bretton Woods Accords gave rise to the Monetary and Financial Conference of 1944, in which the first world economic institutions emerged (among them, the World Bank and the International Monetary Fund), and the creation years later, in 1948, of the General Agreement on Tariffs Customs and Trade (GATT). Starting in the eighties of the previous century, a new economic model emerged under the political auspices of Reagan and Thatcher, which has been called neoliberalism, as a response to the economic crises generated in nations by excessive public interventionism. The integration of national economies was also sought to promote international commercial and financial integration in incipient and unstoppable globalization. To consolidate this process, the World Trade Organization (WTO) was created in 1995, establishing a multilateral trading system. However, starting with the terrorist attacks against the Twin Towers in New York in 2001, which showed a tremendous real weakness of the society that until then had been a world leader, the hegemony of the United States began to be questioned, and very particularly at the end of that decade with the irruption of the international financial crisis. These significant changes have made many of these institutions obsolete, increasingly pressured by the surge of emerging countries with a great capacity for growth and influence. These institutions are forced to undertake a profound transformation not to disappear. China's new and increasingly prominent leadership with the United States, and a more and more weakened EU, have been facilitated by the global evolution of the COVID-19 pandemic. A context defined like a Third World War, but without violent conflicts or weapons of destruction, where economic intelligence and strategic management are the keys to victory. In addition, a new ideological struggle has been generated to impose and expand the benefits of their respective economic-political systems between the United States and China in their struggle for world leadership (Arbeláez-Campillo & Villasmil, 2020).

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