

## Chapter 9

# Dialectics of Self–Movement of Resilient Companies in the Economy and Society Post COVID–19: Patterns of Organizational Transformations of Networking Interactions

**Andrey I. Pilipenko**

 <https://orcid.org/0000-0001-9446-345X>

*The Russian Presidential Academy of National  
Economy and Public Administration, Russia*

**Zoya I. Pilipenko**

 <https://orcid.org/0000-0001-5734-5673>

*Bank of Russia, Russia*

**Olga I. Pilipenko**

 <https://orcid.org/0000-0001-5734-5673>

*The Russian Presidential Academy of National  
Economy and Public Administration, Russia*

### ABSTRACT

*The COVID-19 global pandemic had a shock effect on all spheres of human activities: technology, society, and economy. They are distinguished by the fact that they are structural integrities capable of self-movement. All systemic changes in the economy before COVID-19 are interpreted in terms of statics and, post pandemic, in dynamics. Self-sufficient companies are the main drivers of modern system formation processes. They form the entire structure of interactions in static economic systems, mediating the mechanism of their self-organization. Their functions of “creative destruction” of organizational interactions mediate the mechanism of self-movement of systems both in statics and in dynamics. A model of the structure formation in the economy by resilient companies is presented as horizontal structure interactions of dialectical pairs and hierarchical structural levels according to the upward and downward causation principles. The mechanism of system self-movement is regulated by the dialectical laws.*

DOI: 10.4018/978-1-6684-6762-6.ch009

## INTRODUCTION

The COVID-19 global pandemic had a shock effect on all spheres of human activities: in technology, in society, in the economic system, etc. In fact, all of a sudden, a situation was formed that was associated with the end of order and the beginning of chaos against the backdrop of increasing uncertainty, negatively affected the existing networking interaction (Prigogine, and Stengers, 1983; Haken, 1977; Arnold, 1975, 1979). As a result, the ongoing changes in man-made systems need to be rethought and theoretically re-understood. The dialectical approach (Hegel, 1892; Schelling, 1993; Marx, 1995; Vernadsky, 1998) and system interpretation (Bertalanffy, 1968; Guckenheimer, 1973; Thom, 1974; Hacken, 1977) of the processes of organizing human activity enabled the authors to form a more or less adequate picture of system formation in the economy. The use of the methodological approaches outlined above made it possible to determine the obvious dialectic of interaction between the economy and self-sufficient companies, which are a dialectical pair in the face of the system and its backbone elements. The search for the laws of their complication (Arthur, 2009, 2013) led the authors to the highlighting tectological principles of the organization of networking interactions in the economic systems (Bogdanov, 1934). The treatment of self-sufficient companies (Manyika, et al., 2021; Economist Impact, 2022) as the backbone elements made it possible to consider them as the main drivers of system formation processes (Schumpeter, 1961), which are based on the patterns of change of networking interactions.

Systemic ideas about the complexity of human-created organizations at the macro level predetermined the need to consider them in the processes of static and dynamic changes (Frisch, 1933; Slutsky, 1937; Schumpeter, 1961; Robinson, 1980; Clark, 2007; Pilipenko, 2021; Khosrow-Pour, 2022). The complication of a static system in the economy was mediated by companies that strengthened its integrity and stability through the multiplication of horizontal and vertical structural relationships. The reverse side of the complication of the economic system's structure became its growing fragility (Minsky, 2008; Taleb, 2007, 2012). It was this characteristic that ultimately predetermined the limit of the complication of the economic system in statics or of its self-organization. In this context, the ability of self-sufficient companies to Schumpeterian "creative destruction" was manifested. They mediated the action of the dialectical laws of unity and struggle of opposites and the transition of quantitative changes into qualitative ones in the processes of self-organization of the economy in statics. Such a theoretical approach allowed the authors to find explanations for the changes in networking interactions that occur in economic systems with the onset of the COVID-19 pandemic. Moreover, the approach of a static economy to its limit state, beyond which uncertainty grows, was noted by such authors as Roger Bootle (2009), Carmen M. Reinhart, and Kenneth S. Rogoff (2009), Branko Milanovic (2019), Eric Lonergan, and Mark Blyth (2020), Klaus Schwab, and Malleret Thierry (2020); World Economic Forum experts (2020, 2020a) and many others.

The uncertainty of the future economic system, according to the authors, is associated first of all, with new objects of exchange, with its other participants, a change in the quality of exchange processes in the course of creating new networking interactions by self-sufficient companies. This, according to the authors, distinguishes the specifics of constructing the contours of the future economic system in its dynamic state. In other words, self-sufficient companies destroy the structural ties they have created in a static economy and are called upon to form new structures for a dynamic economy, realizing the operation of the dialectical law of negation of negation (Pilipenko, et al., 2022). Moreover, this process was initiated by COVID-19, and while approaching the end of the pandemic, the rate of formation of new structural interactions will only increase.

27 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/dialectics-of-self-movement-of-resilient-companies-in-the-economy-and-society-post-covid-19/307541](http://www.igi-global.com/chapter/dialectics-of-self-movement-of-resilient-companies-in-the-economy-and-society-post-covid-19/307541)

## Related Content

---

### Analyzing and Evaluating Current Computer Networks Simulation Models

Jafar Ababneh, Hussein Abdel-Jaber, Firas Albalasand Amjad Daoud (2012). *Simulation in Computer Network Design and Modeling: Use and Analysis* (pp. 459-478).

[www.irma-international.org/chapter/analyzing-evaluating-current-computer-networks/63297](http://www.irma-international.org/chapter/analyzing-evaluating-current-computer-networks/63297)

### Medium Access Protocols for Cooperative Collision Avoidance in Vehicular Ad-Hoc Networks

Md. Imrul Hassan, Hai L. Vuand Taka Sakurai (2010). *Advances in Vehicular Ad-Hoc Networks: Developments and Challenges* (pp. 97-119).

[www.irma-international.org/chapter/medium-access-protocols-cooperative-collision/43167](http://www.irma-international.org/chapter/medium-access-protocols-cooperative-collision/43167)

### An Architecture for Big IoT Data Analytics in the Oil and Gas Industry

Ramiz M. Aliguliyev, Rashid G. Alakbarovand Shalala F. Tahirzada (2020). *International Journal of Hyperconnectivity and the Internet of Things* (pp. 25-37).

[www.irma-international.org/article/an-architecture-for-big-iot-data-analytics-in-the-oil-and-gas-industry/258102](http://www.irma-international.org/article/an-architecture-for-big-iot-data-analytics-in-the-oil-and-gas-industry/258102)

### Analyzing IEEE 802.11g and IEEE 802.16e Technologies for Single-Hop Inter-Vehicle Communication

Raúl Aquino-Santos, Víctor Rangel-Licea, Aldo L. Méndez-Pérez, Miguel A. Garcia-Ruiz, Arthur Edwards-Blockand Eduardo Flores-Flores (2010). *Advances in Vehicular Ad-Hoc Networks: Developments and Challenges* (pp. 120-148).

[www.irma-international.org/chapter/analyzing-ieee-802-11g-ieee/43168](http://www.irma-international.org/chapter/analyzing-ieee-802-11g-ieee/43168)

### Service Offerings for Fixed-Mobile Convergence Scenario: An Integrated Operator Case

Jarmo Harno, K.R. Renjish Kumar, Mikko V.J. Heikkinen, Mario Kind, Thomas Monathand Dirk Von Hugo (2010). *Networking and Telecommunications: Concepts, Methodologies, Tools, and Applications* (pp. 1385-1399).

[www.irma-international.org/chapter/service-offerings-fixed-mobile-convergence/49815](http://www.irma-international.org/chapter/service-offerings-fixed-mobile-convergence/49815)