THERE ARE TOO MANY REASONS FOR SUPPLY CHAIN DISRUPTIONS

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ABSTRACT

The Covid pandemic, Russia's war in Ukraine, increasing protectionism, and trade wars combined with repeating natural disasters around the world have put many global supply chains in a critical state and raised questions about their reliability. How to respond to the current crisis in the supply chain and whether the popular paradigms of lean manufacturing and just-in-time inventory have to be reevaluated depends on how unique the causes that led to the recent global supply chain crises are. This paper reviews the main causes of supply chain disruptions, including natural disasters, war conflicts, cyberwars, and transportation problems, and debates the likelihood of their recurrence in coming years. The paper concludes that the main causes of supply chain disruptions have fundamental reasons that will stay with us for the foreseeable future; de-risking supply chains requires both countries and businesses to reevaluate their approach to the organization of supply chains, prioritizing resilience alongside profit considerations in their business arrangement.

Keywords*: supply chain disruption, supply chain resilience, natural disasters, trade wars, transportation bottlenecks, geographic diversification*

1. INTRODUCTION

A supply chain is often broadly defined as a combination of arrangements that are necessary to create and sell a product or a service sometimes including into this scope a customer service as well. An effective, well-organized supply chain is the foundation of any successful business. Still, a few years ago supply chain as a discipline or a subject was interested only to business practitioners and business professors, others didn't think much about what it takes to produce and deliver all types of products to physical or online stores where they can be bought by customers.

Since the end of the Cold War, world business development has been mostly smooth without big surprises and upheavals. The world economy successfully grew, developed countries expanded their presence in developing countries by large-scale outsourcing their manufacturing base offshore, the international trade was on the rise with ever-increasing flows of goods across all borders on all continents. It allowed to create of a truly global highly connected economy in which companies all over the world were able to both create long-term mutually beneficial and reliable relationships and easily find new suppliers for new business projects. Altogether that well-oiled economic development over the last three decades led to the popularity of *lean manufacturing* and *just-in-time delivery* concepts aimed at elimination of excessive inventory assuming a continuing uninterrupted supply of goods and services.

The Covid pandemic that started in 2020 made a profound change in the supply chain mindset. Massive lockdowns in many countries seriously interrupted the flows of goods and services worldwide and in parallel created big fluctuations in customer demands. It was even further amplified by such unexpected events like Brexit and Russia's war against Ukraine. The world economy went into a turbulent unpredicted phase that greatly undermined numerous supply chains around the world. The scale of these supply chain disruptions was so big that the global economy feels its consequences today.

The supply chain concept may be related not only to material production but to all areas of business and social lives, including the financial sector, healthcare system, education, public administration, etc. This paper concentrates on the traditional approach to the supply chain as an organization of material flows