

## ANALYZING LOGISTICS FUNCTIONS' LPI-BASED EFFECTS ON GLOBAL EXPORTS AND IMPORTS

Framarz Byramjee, Indiana University of Pennsylvania, Indiana, Pennsylvania, U.S.A.  
 Parimal Bhagat, Indiana University of Pennsylvania, Indiana, Pennsylvania, U.S.A.  
 Jill Baumgardner, Indiana University of Pennsylvania, Indiana, Pennsylvania, U.S.A.  
 Kevin Lhota, Indiana University of Pennsylvania, Indiana, Pennsylvania, U.S.A.

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### ABSTRACT

*Considering nations' exports and imports as macroeconomic determinants for global commerce capability, this paper attempts to ascertain their criterion impacts happening due to logistical functions based on a nomologically modeled research framework of transportation effectiveness constituents. Evaluating reliable secondary data for nations' logistics performance parameters mined from the World Bank Database and nations' exports and imports metrics mined from the International Monetary Fund Database, the analytical discourse further empirically tests the concerted logistical variables' relevant effects on exports and imports. Elements of substantive significance generated from the varied findings are discussed as they practically apply within the functional scope of logistical effectiveness garnered toward trade throughput efficacies.*

**Keywords:** Logistics Functions, Exports, Imports, Global Trade, Secondary Data, Significance Effects

### 1. INTRODUCTION TO THE THESIS OF INQUIRY

The converging global business environment emphasizes not only organizations worldwide but also nations as macroeconomic industrial players to evaluate, integrate, and sustain their evolving synergies in financial, operations, and marketing dynamics on the trade platform. Extents of exports and imports engaged in by nations as trading entities in world commerce arena reflect their market size factors in commerce potential (Byramjee, Krishnan and Rahman, 2018). Treating exports and imports as technical resultants from merchandise flows and inventory throughputs along nations' trade-routes as comprehensive macro-marketing channels, these movements define basal 'transvection' levels by nations' efficiency and effectiveness of logistical capabilities for transportation, warehousing, inventory/materials' management, order processing, and information assimilation within their inbound and outbound distribution systems. Realizing the need to relate logistical congruencies with viabilities for export and import, this research attempts to empirically analyze influences of key logistical functions on these trade metrics. Drawing upon the nomological framework of logistical functions for transportation parameters structured by Byramjee, Bhagat, Baumgardner and Lhota (2020), themed along the Logistics Performance Index components by Arvis, et al. (2018), this paper further builds on that logistical network's effects on exports and imports metrics for global trade concertedness by congregating relevant variables, measures, and secondary data mined from the World Bank Database and International Monetary Fund Database, for empirically examining several relationships among the constituent sets of variables to extend the modeled analytical discourse.

### 2. LITERATURE REVIEW ON PERTINENT THEORETICAL NOMOLOGY

The Logistics Performance Index (LPI) as a composite construct along with its formative indicators denoting varied transportation-related elements have been fairly utilized in diverse business and economics research for trade prospects. This narrative works to build nomological validity drawing from analytical substantiation among key literature grounded in theory reasoned toward these variables and their relationships.