AN INDUCTIVE ANALYSIS OF TRADE PARAMETERS APPLYING LOGISTICAL FUNCTIONS

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ABSTRACT

This paper implements an Inductive-Statistical method of scientific inquiry toward formulating the discourse for trade deficit and surplus reasoning within the global commerce scape. The research design extends a prior nomologically modeled framework of transportation effectiveness by applying 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 to build the deficit and surplus dichotomy reflecting balance of trade criterion. The analytical structuring tests for the concerted logistical variables' relevant effects by empirically examining several relationships among those constituent sets of explanans influencing the present explananda, patterning inductive research modularity. The contributory and classificatory abilities of these logistical functions, as global business marketing and operations covariates geared toward respectively explaining/predicting and categorizing nations' trade-deficit/surplus situations, are inductively examined by applying pertinent multivariate techniques for analyzing the data and interpreting the results for their suited statistical significances and substantive implications.

Keywords: *Logistics Functions, Trade, Imports, Exports, Surplus, Deficit, Prediction, Classification*

1. INTRODUCTION TO THE THESIS OF INQUIRY

This paper's line of inquiry, spanning its operating objectives through the implemented research design to multi-method analytical testing procedures imparted on the mined data parameters, follows the 'Inductive-Statistical Model' basis of Marketing Science by Hunt (2002). In accordance, the phenomena central to this thesis of inductive inquiry toward determination of the predictive and classificatory modes for nations' trade-deficit/surplus conditions, establish our explananda. In conjunction, the factual characteristics in those situational dynamics, as the logistical performance functions, along with law-like generalizations of probabilistic and statistical bridging tendency governing interactions amidst these functions toward influencing global commerce imports and exports which factor into the trade-surplus/deficit constitution, jointly define our explanans. Applying the 'Inductive-Statistical Model' signals critically that the explananda as conclusions are not always a logical consequence of the explanans as premises, and the explananda are also not necessarily implied by the explanans (Hunt, 2002). Our pertinent conundrum here stipulates toward occurrence or lack thereof in these necessary and sufficient conditions of cause variables as the explanans toward prediction/classification of effects variables as the explananda. The inductive method thereby stipulates that the explanans at best confer certain likelihood that the explananda would occur (Hunt, 2002), which our analytical testing techniques aim to ascertain for drawing out meaningful substantiation of our research prerogatives.

Each of the theoretical premises pertinent to our main constructs for the logistical functions as well as the imports and exports factors generating deficit/surplus trade conditions bear significant cited research sourced in their respective business and economics literature. Several streams of inquiry have focused on varied research designs, models, methods, and qualitative as well as empirical testing techniques to conjure exploratory, descriptive, diagnostic, and causal formulations toward trade occurrences of deficit and surplus; similar research postulations toward modeling and methodology dynamics remain said for the logistics performance functions. However, minimal, or veritably deficient congruencies exist toward