

Defining Analytics and Its Supporting Role in Military Logistics Intelligence

■ By Dr. Christopher R. Paparone and George L. Topic Jr.

We all hear discussions about the importance of analytics, and it is reasonable to perceive that we are at the front edge of a major innovation associated with the effective use of actionable information in planning and managing logistics support.

The word “analysis” comes from a Greek word meaning “to resolve into parts.” When its first two syllables are combined with “mathematics,” the word “analytics” is created, describing a quantifiable approach to resolving problems.

Analytics is often coupled with metaphors, such as big data, data warehousing, and data mining. Senior logistics leaders want to ensure they are developing successors who are able to use analytics in their work. However, the shared meaning of the word is ambiguous.

We suspect that sometimes analytics has become a euphemism for “I don’t know what it is, but I know I want more of it,” especially in light of the penchant to remove as much uncertainty as possible and the massive amount of data available through enterprise resource planning systems.

Business literature is replete with articles and books about “business intelligence,” generally oriented on data science (tools to analyze), predictive data (forecasts for planning), and big data (deciding what data is relevant to a problem set). Businesses are motivated to find efficiencies to increase profitability and still satisfy customers. However, Department of Defense supply chain managers are more interested in effectively supporting unified action that satisfies foreign policy objectives.

In our search for a reasonable and accessible work about analytics, we discovered a remarkable synthesis of ideas in *The Oxford Handbook of Evidence-Based Management*, edited by Denise

M. Rousseau of Carnegie Mellon University. Rousseau presents a scalable framework that we recommend military logisticians at all levels consider. Evidence-based management (EbMgt) subordinates analytics as one facet of a greater purpose: improving organizational learning and decision-making.

Rousseau states that EbMgt “is a knowledge-intensive, capacity-building way to think, act, organize, and lead” that uses “(1) . . . scientific principles in decisions and management processes, (2) systematic attention to organizational facts, (3) . . . critical thinking and decision aids that reduce bias and enable fuller use of information, and (4) ethical considerations including effects on stakeholders.”

In the context of military logistics, we suggest rebranding Rousseau’s EbMgt model as a “military logistics intelligence” framework with the same purpose of improving organizational

learning and decision-making. (See figure 1.) The framework is presented in a scalable, military variant from the tactical and theater levels to the enterprise level.

Our core concern is that the term analytics is too constraining to stand alone for logistics decisions. We believe the concept of military logistics intelligence extends the purpose of analytics to be part of a larger learning and decision-making strategy for military logisticians and is designed to enhance their connections to the enterprise.

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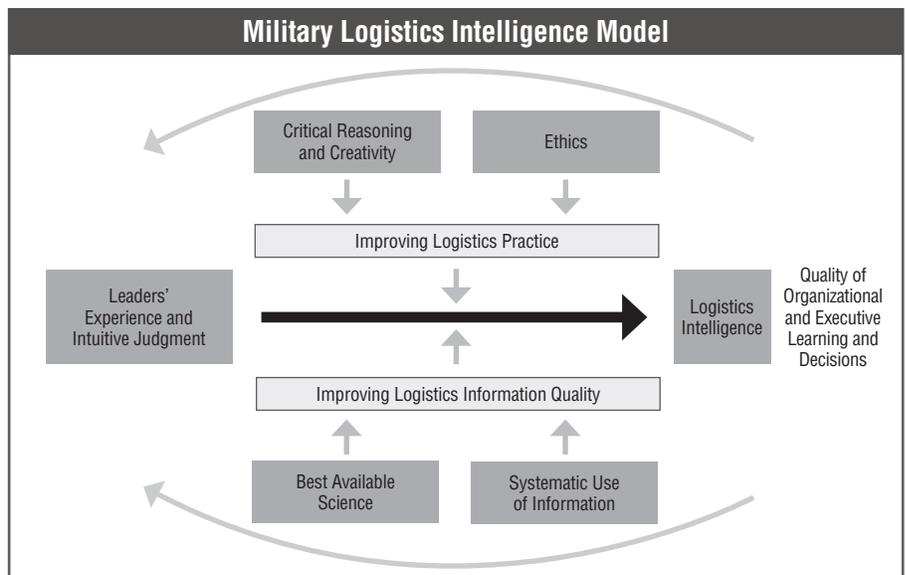


Figure 1. This model, based on Denise M. Rousseau’s evidence-based management framework, provides the key elements necessary for military logistics intelligence, including the systematic use of information, which includes analytics.