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Return on Investment Process and Methodology for Determining Capital Investments in Government Owned Contractor Operated Ammunition Manufacturing Facilities

Connor Farley, Andrew Irwin, Alex Johnson, John Sabert, and John Farr

Department of Systems Engineering
United States Military Academy
West Point, New York

Corresponding author's Email: john.farr@usma.edu

Author Note: Cadets Farley, Irwin, Johnson, and Sabert are all seniors at the United States Military Academy who are students in the Department of Systems Engineering. Upon graduation the cadets will commission into the United States Army as second lieutenants.

Abstract: In the resource-constrained environment of today's Army, the Army must exercise wise stewardship of every dollar managed. A key element in our conservancy is to develop and use sound cost benefit analysis (CBA) practices throughout all requirements/resourcing processes. Supporting the industrial base is just one of the key force enablers that support not only power projection issues but the ability of the Army to perform its' mission. The purpose of this research is to develop and articulate a CBA process specifically for investments in industrial base projects with a focus on the Production Base Support program for the Army ammunitions industrial base. The process will assist analysts in identifying, quantifying, and evaluating the future costs for strategic production investments for industrial facilities to support the ammunition industrial base. This research focused on how to develop quantifiable and non-quantifiable benefits for the proposed investments that is a key step in the process. Specifically, we used value modeling with total ownership costs to develop the quantifiable benefits. We also developed a means to represent risk within a value modeling approach. This methodology provides cost, risk, and value tradeoffs for the selection and validation process of modernization investments for the ammunition industrial base.

Keywords: Industrial Base, Value Modeling, Multi Attribute Utility, Cost Benefit Analysis