

## A survey on the measure of combat readiness

### ABSTRACT

Measuring the combat readiness in military forces involves the measures of tangible and intangible elements of combat power. Though these measures are applicable, the mathematical models and formulae used focus mainly on either the tangible or the intangible elements. In this paper, a review is done to highlight the research gap in the formulation of a mathematical model that incorporates tangible elements with intangible elements to measure the combat readiness of a military force. It highlights the missing link between the tangible and intangible elements of combat power. To bridge the gap and missing link, a mathematical model could be formulated that measures both the tangible and intangible aspects of combat readiness by establishing the relationship between the causal (tangible and intangible) elements and its effects on the measure of combat readiness. The model uses multiple regression analysis as well as mathematical modeling and simulation which digest the capability component reflecting its assets and resources, the morale component reflecting human needs, and the quality of life component reflecting soldiers' state of satisfaction in life. The results of the review provide a mean to bridge the research gap through the formulation of a mathematical model that shows the total measure of a military force's combat readiness. The results also significantly identify parameters for each of the variables and factors in the model.

**Keyword:** Combat; Readiness; Measure; Tangible; Intangible