

REQUIRED / DESIRED MOE & MOP PROPERTIES

PROPERTY	DEFINITION
Quantitative	Able to be assigned numerical values on an absolute or relative scale.
Measurable	Numerical values are able to be determined through use of a scale or gauge or through calculation, computation, estimation, or assignment.
Consistent	(Related to "Measurable.") Successive trials or iterations of measurement under precisely the same conditions yield identical values. Also called "value consistency."
Monotonic	For any discrete MOE $y_i = f(X_i)$ where $X_i = \{x_{i,1}, x_{i,2}, \dots, x_{i,j}\}$, $y_n - y_{n-1}$ must be non-increasing (≤ 0) or non-decreasing (≥ 0) for all X_n such that $x_{n,m} - x_{n-1,m} \geq 0$ for all m (i.e., an MOE function must be non-reversing). Analogous first derivative conditions for monotonicity apply to the case of a continuous MOE function.
Relevant	Directly related to the question or issue under study (i.e., to the objectives of the study).
Mission Oriented	Directly related to mission success or to the accomplishment of functions supporting mission success (not necessarily applicable to all MOPs).
Objective	Defined or derived independent of subjective opinion.
Sensitive	Able to demonstrate differences in output performance or effectiveness for even small changes in the values of the input variables of interest. (This property also may be called "discriminatory.")
Internally Consistent	Supported by MOEs at each lower level and supportive of MOEs at each higher level. (This property relates to the desired linkages among measures at different hierarchical levels within an MOE set and reduces the risk of suboptimization.)