

Aggregation methods	Formula	Level of compensation	Comments
Additive (weighted arithmetic mean)	$score_a = \sum_{i=1}^n N_{ia} w_i$	Full	Most common aggregation method used. It is a linear combination. It amplifies the effect of the higher values. Commonly used in situations where variables are considered equally important.
Geometric (weighted geometric mean)	$score_a = \prod_{i=1}^n N_{ia}^{w_i}$	Partial	The indicators values should be larger than 0. It is a non-linear combination. The impact of each variable's value is not proportional to its magnitude, and the relative contribution of each variable depends on the other variables involved. It amplifies the impact of variables with small values. The method is commonly used in situations where the interaction or joint effect of variables is of interest.
Harmonic	$score_a = \frac{\sum_{i=1}^n w_i}{\sum_{i=1}^n \frac{w_i}{N_{ia}}}$	Partial (less than Geometric)	The indicators values should strictly be larger than 0. It is a non-linear combination. The impact of each value is not proportional to its magnitude, and the relative contribution of each variable depends on the other variables involved. Insensitivity to extreme values. It is primarily used in situations where smaller values are considered more important or when dealing with ratios or rates.
Minimum	$N_{ia} = \min(N_{1a}, N_{2a}, \dots, N_{na})$	None	The worst performing indicator equals the final score. Suitable if the DM is interested in an assessment driven by the worst performing indicator.
Legend $score_a$: the composite score for alternative a . n : the number of indicators. w_i : the weight of indicator i . N_{ia} : the normalized value of indicator i for alternative a .			