

AHP weights (reproducible, integer Saaty matrix). Let the non-functional attribute set be $C = \{M, S, Rb, E, Ru\}$ with the row/column order $[M, S, Rb, E, Ru]$. To obtain an integer Saaty-scale pairwise comparison matrix that matches the target weights $(0.36, 0.24, 0.16, 0.12, 0.12)$ up to 2–3 decimals, we construct the reciprocal matrix:

$$A = \begin{bmatrix} 1 & 1 & 2 & 4 & 4 \\ 1 & 1 & 1 & 2 & 2 \\ 1/2 & 1 & 1 & 1 & 1 \\ 1/4 & 1/2 & 1 & 1 & 1 \\ 1/4 & 1/2 & 1 & 1 & 1 \end{bmatrix}.$$

We compute the principal eigenvector \mathbf{v} associated with λ_{\max} via $A\mathbf{v} = \lambda_{\max}\mathbf{v}$, and normalize it as $w_i = v_i / \sum_{k=1}^5 v_k$. This yields $\mathbf{w} = (0.3637, 0.2407, 0.1593, 0.1182, 0.1182)$, which rounds to $(0.36, 0.24, 0.16, 0.12, 0.12)$ and aligns with Eq. (6) (p. 8).

Consistency. We report $CI = (\lambda_{\max} - n)/(n - 1)$ and $CR = CI/RI$ with $n = 5$ and $RI(5) = 1.12$. For the matrix above, $\lambda_{\max} \approx 5.1364$, so $CI \approx 0.0341$ and $CR \approx 0.0304 < 0.10$, indicating acceptable consistency.