Package: topsis (via r-universe)

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Type Package

Title TOPSIS method for multiple-criteria decision making (MCDM)

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Description Evaluation of alternatives based on multiple criteria
using TOPSIS method.

License GPL-2

NeedsCompilation no

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Repository https://mahmoudmy.r-universe.dev

RemoteUrl https://github.com/cran/topsis

RemoteRef HEAD

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Description

The Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) is a multiple-criteria decision making (MCDM) method.

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Usage

```
topsis(decision = NULL, weights = NULL, impacts = NULL)
```

Arguments

decision   A numeric matrix with m rows for m alternatives and n columns for n criterions.

weights   A numeric vector with length equal to number of columns in decision matrix for
               weights of criterions.

impacts   A character vector of "+" and "-" signs for the way that each criterion influences
               on the alternatives.

Value

A data frame including elements

alt.row   Row number of alternatives in decision matrix.

score   TOPSIS score of alternatives.

rank   Rank of alternatives based on TOPSIS scores.

Author(s)

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References

Yoon, K.P.; Hwang, C. (1995). _Multiple Attribute Decision Making: An Introduction_. California:
SAGE publications.

Examples

```
d <- matrix(rpois(12, 5), nrow = 4)
w <- c(1, 1, 2)
i <- c("+", "-", "+")
topsis(d, w, i)
```

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