$$(H,A) = \begin{bmatrix} (0.88,0.99) & (0.77,0.99) & (0.99,0.33) & (0.77,0.66) \\ (0.55,0.99) & (0.99,0.44) & (0.77,0.99) & (0.66,0.99) \\ (0.77,0.88) & (0.77,0.99) & (0.55,0.66) & (0.99,0.44) \\ (0.55,0.88) & (0.88,0.55) & (0.66,0.88) & (0.77,0.88) \end{bmatrix}$$

To obtain the order position of a matrix:

```
(H,A) = \begin{bmatrix} (0.99,0.33) & (0.88,0.99) & (0.77,0.99) & (0.77,0.66) \\ (0.99,0.44) & (0.77,0.99) & (0.66,0.99) & (0.55,0.99) \\ (0.99,0.44) & (0.77,0.99) & (0.77,0.88) & (0.55,0.66) \\ (0.88,0.55) & (0.77,0.88) & (0.66,0.88) & (0.55,0.88) \end{bmatrix}
```

### Decision matrix for Alternative P<sub>1</sub>

```
 \begin{bmatrix} (0.66, 0.99) & (0.77, 0.99) & (0.99, 0.33) & (0.77, 0.66) & (0.88, 0.99) & (0.77, 0.99) & (0.99, 0.33) & (0.77, 0.99) \\ (0.55, 0.66) & (0.99, 0.44) & (0.55, 0.99) & (0.66, 0.99) & (0.66, 0.99) & (0.66, 0.88) & (0.77, 0.66) & (0.88, 0.66) \\ (0.44, 0.88) & (0.77, 0.99) & (0.44, 0.66) & (0.99, 0.44) & (0.77, 0.88) & (0.77, 0.55) & (0.88, 0.33) & (0.77, 0.44) \\ (0.55, 0.44) & (0.88, 0.55) & (0.66, 0.88) & (0.77, 0.88) & (0.88, 0.66) & (0.77, 0.66) & (0.99, 0.55) & (0.55, 0.66) \\ \end{bmatrix}
```

# Decision matrix for Alternative P<sub>2</sub>

```
 \begin{bmatrix} (0.55, 0.66) & (0.44, 0.99) & (0.88, 0.33) & (0.77, 0.66) & (0.44, 0.99) & (0.77, 0.55) & (0.99, 0.66) & (0.77, 0.99) \\ (0.77, 0.88) & (0.77, 0.99) & (0.44, 0.66) & (0.99, 0.44) & (0.77, 0.44) & (0.77, 0.55) & (0.88, 0.33) & (0.88, 0.44) \\ (0.88, 0.99) & (0.77, 0.99) & (0.99, 0.44) & (0.77, 0.66) & (0.88, 0.66) & (0.77, 0.99) & (0.99, 0.44) & (0.77, 0.99) \\ (0.55, 0.66) & (0.99, 0.44) & (0.33, 0.99) & (0.66, 0.99) & (0.44, 0.99) & (0.33, 0.88) & (0.77, 0.66) & (0.88, 0.66) \\ \end{bmatrix}
```

#### Decision matrix for Alternative P<sub>3</sub>

```
 \begin{bmatrix} (0.99, 0.66) & (0.44, 0.99) & (0.88, 0.33) & (0.77, 0.66) & (0.44, 0.99) & (0.77, 0.55) & (0.99, 0.66) & (0.77, 0.99) \\ (0.44, 0.88) & (0.77, 0.66) & (0.55, 0.88) & (0.99, 0.33) & (0.66, 0.44) & (0.77, 0.66) & (0.55, 0.33) & (0.88, 0.77) \\ (0.66, 0.99) & (0.77, 0.99) & (0.99, 0.44) & (0.77, 0.66) & (0.88, 0.66) & (0.77, 0.99) & (0.99, 0.44) & (0.77, 0.99) \\ (0.33, 0.88) & (0.77, 0.99) & (0.44, 0.66) & (0.99, 0.44) & (0.77, 0.44) & (0.77, 0.55) & (0.88, 0.33) & (0.88, 0.44) \\ \end{bmatrix}
```

# Decision matrix for Alternative P<sub>4</sub>

```
 \begin{bmatrix} (0.99, 0.44) & (0.99, 0.44) & (0.99, 0.33) & (0.77, 0.99) & (0.77, 0.55) & (0.77, 0.44) & (0.44, 0.66) & (0.33, 0.88) \\ (0.88, 0.33) & (0.88, 0.77) & (0.77, 0.66) & (0.77, 0.66) & (0.66, 0.44) & (0.55, 0.88) & (0.55, 0.33) & (0.44, 0.88) \\ (0.99, 0.44) & (0.99, 0.44) & (0.88, 0.66) & (0.77, 0.99) & (0.77, 0.99) & (0.77, 0.99) & (0.77, 0.66) & (0.66, 0.99) \\ (0.99, 0.66) & (0.99, 0.66) & (0.88, 0.33) & (0.77, 0.99) & (0.77, 0.66) & (0.77, 0.55) & (0.44, 0.99) & (0.44, 0.99) \\ \end{bmatrix}
```

The decision matrices with ordered position as follows:

#### Decision matrix for Alternative P<sub>1</sub>

```
 \begin{array}{l} \hline (0.99,0.33) \ (0.99,0.33) \ (0.88,0.99) \ (0.77,0.99) \ (0.77,0.99) \ (0.77,0.99) \ (0.77,0.99) \ (0.77,0.66) \ (0.66,0.99) \ \\ \hline (0.99,0.44) \ (0.88,0.66) \ (0.77,0.66) \ (0.66,0.99) \ (0.66,0.99) \ (0.66,0.88) \ (0.55,0.99) \ (0.55,0.66) \ \\ \hline (0.99,0.44) \ (0.88,0.33) \ (0.77,0.99) \ (0.77,0.88) \ (0.77,0.55) \ (0.77,0.44) \ (0.44,0.88) \ (0.44,0.66) \ \\ \hline (0.99,0.55) \ (0.88,0.66) \ (0.88,0.55) \ (0.77,0.88) \ (0.77,0.66) \ (0.66,0.88) \ (0.55,0.66) \ (0.55,0.44) \ \end{array}
```

Frontiers 1

# Decision matrix for Alternative P<sub>2</sub>

```
 \begin{bmatrix} (0.99,0.66) & (0.88,0.33) & (0.77,0.99) & (0.77,0.66) & (0.77,0.55) & (0.55,0.66) & (0.44,0.99) & (0.44,0.99) & (0.99,0.44) & (0.88,0.44) & (0.88,0.33) & (0.77,0.99) & (0.77,0.88) & (0.77,0.55) & (0.77,0.33) & (0.44,0.66) & (0.99,0.44) & (0.99,0.44) & (0.88,0.99) & (0.88,0.66) & (0.77,0.99) & (0.77,0.99) & (0.77,0.99) & (0.77,0.96) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.55,0.66) & (0.44,0.99) & (0.33,0.99) & (0.33,0.88) & (0.77,0.99,0.24) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.88,0.66) & (0.77,0.66) & (0.99,0.44) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,0.86) & (0.99,
```

## Decision matrix for Alternative P<sub>3</sub>

```
 \begin{bmatrix} (0.99,0.66) & (0.99,0.66) & (0.88,0.33) & (0.77,0.99) & (0.77,0.66) & (0.77,0.55) & (0.44,0.99) & (0.44,0.99) & (0.99,0.33) & (0.88,0.77) & (0.77,0.66) & (0.77,0.66) & (0.66,0.44) & (0.55,0.88) & (0.55,0.33) & (0.44,0.88) & (0.99,0.44) & (0.99,0.44) & (0.88,0.66) & (0.77,0.99) & (0.77,0.99) & (0.77,0.99) & (0.77,0.66) & (0.66,0.99) & (0.99,0.44) & (0.88,0.44) & (0.88,0.33) & (0.77,0.99) & (0.77,0.55) & (0.77,0.44) & (0.44,0.66) & (0.33,0.88) & (0.77,0.99,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,0.12) & (0.77,
```

## Decision matrix for Alternative P<sub>4</sub>

```
 \begin{array}{l} (0.99,0.44) \ (0.99,0.44) \ (0.99,0.33) \ (0.77,0.99) \ (0.77,0.55) \ (0.77,0.44) \ (0.44,0.66) \ (0.33,0.88) \\ (0.88,0.33) \ (0.88,0.77) \ (0.77,0.66) \ (0.77,0.66) \ (0.66,0.44) \ (0.55,0.88) \ (0.55,0.33) \ (0.44,0.88) \\ (0.99,0.44) \ (0.99,0.44) \ (0.88,0.66) \ (0.77,0.99) \ (0.77,0.99) \ (0.77,0.99) \ (0.77,0.55) \ (0.44,0.99) \\ (0.99,0.66) \ (0.99,0.66) \ (0.88,0.33) \ (0.77,0.99) \ (0.77,0.66) \ (0.77,0.55) \ (0.44,0.99) \end{array}
```

Frontiers 2