目标指标权重表

1．决策目标

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 决策目标 | A1 | A2 | A3 | Wi |
| A1 | 1 | 4 | 3 | 0.6250 |
| A2 | 1/4 | 1 | 1/2 | 0.1365 |
| A3 | 1/3 | 2 | 1 | 0.2385 |
| CR | 0.0158 | | | |
| 最大特征值 | 3.0183 | | | |
| 对总目标权重 | 1 | | | |

一级指标权重表

2. A1

|  |  |  |  |
| --- | --- | --- | --- |
| A1 | B1 | B2 | Wi |
| B1 | 1 | 2 | 0.6667 |
| B2 | 1/2 | 1 | 0.3333 |
| CR | 0 | | |
| 最大特征值 | 2 | | |
| 对总目标权重 | 0.6250 | | |

2. A2

|  |  |  |  |
| --- | --- | --- | --- |
| A2 | B3 | B4 | Wi |
| B3 | 1 | 2 | 0.6667 |
| B4 | 1/2 | 1 | 0.3333 |
| CR | 0 | | |
| 最大特征值 | 2 | | |
| 对总目标权重 | 0.1365 | | |

3. A3

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| A3 | B5 | B6 | B7 | Wi |
| B5 | 1 | 2 | 1.5 | 0.4546 |
| B6 | 1/2 | 1 | 1/2 | 0.1985 |
| B7 | 1/1.5 | 2 | 1 | 0.3469 |
| CR | 0.0158 | | | |
| 最大特征值 | 3.0183 | | | |
| 对总目标权重 | 0.2385 | | | |

二级指标权重表

4. B1

|  |  |  |  |
| --- | --- | --- | --- |
| B1 | C1 | C2 | Wi |
| C1 | 1 | 1/2 | 0.3333 |
| C2 | 2 | 1 | 0.6667 |
| CR | 0 | | |
| 最大特征值 | 2 | | |
| 对总目标权重 | 0.4167 | | |

5. B2

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| B2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | Wi |
| C3 | 1 | 1/2 | 1/3.5 | 1/3 | 2 | 3 | 4 | 0.1134 |
| C4 | 2 | 1 | 1/3 | 1/2 | 3 | 3.5 | 4.5 | 0.1649 |
| C5 | 3.5 | 3 | 1 | 2 | 4 | 4.5 | 5 | 0.3301 |
| C6 | 3 | 2 | 1/2 | 1 | 3 | 3.5 | 4 | 0.2233 |
| C7 | 1/2 | 1/3 | 1/4 | 1/3 | 1 | 2 | 3 | 0.0777 |
| C8 | 1/3 | 1/3.5 | 1/4.5 | 1/3.5 | 1/2 | 1 | 1.5 | 0.0509 |
| C9 | 1/4 | 1/4.5 | 1/5 | 1/4 | 1/3 | 1/1.5 | 1 | 0.03924 |
| CR | 0.0364 | | | | | | | |
| 最大特征值 | 7.2886 | | | | | | | |
| 对总目标权重 | 0.2083 | | | | | | | |

6. B3

|  |  |  |  |
| --- | --- | --- | --- |
| B3 | C10 | C11 | Wi |
| C10 | 1 | 2 | 0.6667 |
| C11 | 1/2 | 1 | 0.3333 |
| CR | 0 | | |
| 最大特征值 | 2 | | |
| 对总目标权重 | 0.0910 | | |

7. B4

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| B4 | C12 | C13 | C14 | C15 | C16 | Wi |
| C12 | 1 | 2 | 3 | 1/2 | 1/1.5 | 0.2059 |
| C13 | 1/2 | 1 | 1.5 | 1/2.5 | 1/2 | 0.1212 |
| C14 | 1/3 | 1/1.5 | 1 | 1/3 | 1/3 | 0.0852 |
| C15 | 2 | 2.5 | 3 | 1 | 1.5 | 0.3336 |
| C16 | 1.5 | 2 | 3 | 1/1.5 | 1 | 0.2541 |
| CR | 0.0116 | | | | | |
| 最大特征值 | 5.0520 | | | | | |
| 对总目标权重 | 0.0455 | | | | | |

8. B5

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| B5 | C17 | C18 | C19 | Wi |
| C17 | 1 | 1/1.5 | 2 | 0.3469 |
| C18 | 1.5 | 1 | 2 | 0.4546 |
| C19 | 1/2 | 1/2 | 1 | 0.1985 |
| CR | 0.0158 | | | |
| 最大特征值 | 3.0183 | | | |
| 对总目标权重 | 0.1084 | | | |

9. B6

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| B6 | C20 | C21 | C22 | C23 | Wi |
| C20 | 1 | 1/2 | 1/2.5 | 1/1.5 | 0.1396 |
| C21 | 2 | 1 | 1/1.5 | 2 | 0.2966 |
| C22 | 2.5 | 1.5 | 1 | 2 | 0.3824 |
| C23 | 1.5 | 1/2 | 1/2 | 1 | 0.1814 |
| CR | 0.0092 | | | | |
| 最大特征值 | 4.0248 | | | | |
| 对总目标权重 | 0.0473 | | | | |

10. B7

|  |  |  |  |
| --- | --- | --- | --- |
| B7 | C24 | C25 | Wi |
| C24 | 1 | 1/2 | 0.3333 |
| C25 | 2 | 1 | 0.6667 |
| CR | 0 | | |
| 最大特征值 | 2 | | |
| 对总目标权重 | 0.0827 | | |

三级指标权重表

11. C1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| C1 | D1 | D2 | D3 | Wi |
| D1 | 1 | 1.5 | 1/2 | 0.2918 |
| D2 | 1/1.5 | 1 | 1/1.5 | 0.2451 |
| D3 | 2 | 1.5 | 1 | 0.4631 |
| CR | 0.0162 | | | |
| 最大特征值 | 3.0536 | | | |
| 对总目标权重 | 0.1389 | | | |

12. C2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| C2 | D4 | D5 | D6 | Wi |
| D4 | 1 | 1.5 | 1/2 | 0.2785 |
| D5 | 1/1.5 | 1 | 1/2.5 | 0.1973 |
| D6 | 2 | 2.5 | 1 | 0.5242 |
| CR | 0.0032 | | | |
| 最大特征值 | 3.0037 | | | |
| 对总目标权重 | 0.2778 | | | |

13. C10

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| C10 | D7 | D8 | D9 | D10 | D11 | D12 | Wi |
| D7 | 1 | 1/3 | 1.5 | 1/2.5 | 1/2 | 1/3 | 0.0834 |
| D8 | 3 | 1 | 3 | 1.5 | 2 | 1/1.5 | 0.2356 |
| D9 | 1/1.5 | 1/3 | 1 | 1/2.5 | 1/2 | 1/3.5 | 0.0706 |
| D10 | 2.5 | 1/1.5 | 2.5 | 1 | 1.5 | 1/2 | 0.1761 |
| D11 | 2 | 1/2 | 2 | 1/1.5 | 1 | 1/2.5 | 0.1314 |
| D12 | 3 | 1.5 | 3.5 | 2 | 2.5 | 1 | 0.3029 |
| CR | 0.0894 | | | | | | |
| 最大特征值 | 6.0554 | | | | | | |
| 对总目标权重 | 0.0607 | | | | | | |

14. C11

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| C11 | D13 | D14 | D15 | D16 | Wi |
| D13 | 1 | 1/3 | 1/2.5 | 1/2 | 0.1134 |
| D14 | 3 | 1 | 2 | 2.5 | 0.4384 |
| D15 | 2.5 | 1/2 | 1 | 1.5 | 0.2590 |
| D16 | 2 | 1/2.5 | 1/1.5 | 1 | 0.1893 |
| CR | 0.0137 | | | | |
| 最大特征值 | 4.0370 | | | | |
| 对总目标权重 | 0.0303 | | | | |

底层指标权重汇总表

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 指标 | 权重 | | | 指标 | 权重 | | 指标 | 权重 | | 指标 | 权重 |
| C1 | D1 | | 0.0405 | C6 | 0.0465 | | C1O | D12 | 0.0184 | C16 | 0.0116 |
| D2 | | 0.0340 | C7 | 0.0162 | | C11 | D13 | 0.0034 | C17 | 0.0376 |
| D3 | | 0.0643 | C8 | 0.0106 | | D14 | 0.0133 | C18 | 0.0493 |
| C2 | D4 | | 0.0774 | C9 | 0.0082 | | D15 | 0.0078 | C19 | 0.0215 |
| D5 | | 0.0548 | C10 | D7 | 0.0051 | D16 | 0.0057 | C20 | 0.0066 |
| D6 | | 0.1456 | D8 | 0.0143 | C12 | 0.0094 | | C21 | 0.0140 |
| C3 | 0.0236 | | | D9 | 0.0043 | C13 | 0.0055 | | C22 | 0.0181 |
| C4 | 0.0343 | | | D10 | 0.0107 | C14 | 0.0039 | | C23 | 0.0086 |
| C5 | 0.0688 | | | D11 | 0.0080 | C15 | 0.0152 | | C24 | 0.0276 |
| C25 | 0.0551 |

由底层指标权重表可得高新技术企业评价指标体系公式为：

其中R为评价指标体系对于某一高新技术企业的最终评分值，为某高企底层指标所对应的评分数值，为这一指标的加权权重，即上表对应的数值。

对于无数据的指标可以略过或全部评价个体在该指标上都评为0分，待该指标数据补全后再进行新一轮的调整和评价。

为了便于分析和比较，需要对初始数据进行无量纲处理，本指标体系对于数值型数据采取标准化的方法，即

其中