|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| GTA V | 5/7 | GTA V, RDR2 | 1/7 | GTA, CS, Fac | 1/7 |
| RDR2 | 1/7 | GTA V, Citi. S. | 2/7 |  |  |
| Cities Skylines | 4/7 | GTA V, Factor. | 2/7 |  |  |
| SimCity | 1/7 | SimCity, City S | 1/7 |  |  |
| Factorio | 3/7 | Citi. S, Factor. | 2/7 |  |  |

**GTA Associations:**

RDR2 => GTA V = 1/7  
Cities Skylines => GTA V = 2/7  
Factorio => GTA V = 2/7  
Cities Skylines + Factorio => GTA V = 1/7

**Association confidences:**

*Confidence == (xUy) / eX*

RDR2 => GTA V = 1/1 = **1.000**  
Factorio => GTA V = 2/ 3 = **0.667**  
Cities Skylines => GTA V = 2/ 4 = **0.500**  
Cities Skylines + Factorio => GTA V = 1/2 = **0.500**

**Improvement over random (lift):**

*Lift can be found by dividing the confidence by the unconditional probability of the consequent, or by dividing the support by the probability of the antecedent times the probability*

*e.g. confidence/nY*

*The lift for Rule 2 is (2/3)/(5/7) = (2\*7)/(3\*5) = 14/15 ≈ 0.933*

|  |  |  |  |
| --- | --- | --- | --- |
| **Association** | **Confidence** | **GTA V Support** | **Improvement** |
| RDR2 => GTA V | 1 | 5/7 | 1.400 |
| Cities Skylines => GTA V | **0.667** | 0.934 |
| Factorio => GTA V | **0.5** | 0.700 |
| Cities Skylines + Factorio => GTA V | **0.5** | 0.700 |