| Batch | Agent1 | Agent2 |
|---|---|---|
| 1 | 7.7 | 8.5 |
| 2 | 9.2 | 9.6 |
| 3 | 6.8 | 6.4 |
| 4 | 9.5 | 9.8 |
| 5 | 8.7 | 9.3 |
| 6 | 6.9 | 7.6 |
| 7 | 7.5 | 8.2 |
| 8 | 7.1 | 7.7 |
| 9 | 8.7 | 9.4 |
| 10 | 9.4 | 8.9 |
| 11 | 9.4 | 9.7 |
| 12 | 8.1 | 9.1 |

t-Test: Paired Two Sample for Means

| | *Agent1* | *Agent2* |
|---|---|---|
| Mean | 8.25 | 8.683333333 |
| Variance | 1.059090909 | 1.077878788 |
| Observations | 12 | 12 |
| Pearson Correlation | 0.901055812 | |
| Hypothesized Mean Difference | 0 | |
| df | 11 | |
| t Stat | -3.263938591 | |
| P(T<=t) one-tail | 0.003772997 | |
| t Critical one-tail | 1.795884819 | |
| P(T<=t) two-tail | 0.007545995 | |
| t Critical two-tail | 2.20098516 | |

| | |
|---|---|
| Difference in Mean | -0.433333333 |

The obtained related samples t = -3.264 with 11 degrees of freedom.
The associated two-tailed p-value is p = 0.008, so the observed t is significant at the 5% level (two-tailed).
The sample mean impurity of Agent1 and Agent2 were, respectively 8.25 and 8.68. The data therefore constitute significant evidence that the underlying mean number of impurity do not differ. The results suggest that the Null hypothesis will be accepted