|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Industry** | | | |
| **Subject** | **Construction** | | **IT** | |
|  | Comments | Performance | Comments | Performance |
| **Response variable** | Cost of building/infrastructure construction | - | Cost of effort | - |
|  |  |  |  |  |
| **Detailed analysis** | Most popular historically and currently | Poor | Most popular in practice | Poor |
|  |  |  |  |  |
| **Algorithmic models** |  |  |  |  |
| NN, SVM | Black box | High | Black box | High |
| Boosted Trees | Slightly better than NN | High | No literature | - |
| Linear Regression | Most popular in the literature | Medium - high | Most popular in the literature | Medium |
|  | Outperformed by NN, but sometimes equal |  | Outperformed by NN |  |
|  | Multiple variables included in the models |  | Only one variable contributes significantly to models |  |
|  | Explanatory variables differ across studies |  | Significant variable is size of project (lines of code or function point) in most studies |  |
|  | Not adopted by industry |  | not adopted by industry |  |
|  |  |  |  |  |
| **Case Based Reasoning** | Better than regression, worse than NN | Medium-high | Performed approx. equal to NN, Outperformed regression in one study | High |
|  | Good user engagement. Can update without remodelling. |  | Benefit of similar to how manager thinks |  |
|  |  |  |  |  |
| **Alternative contract structure** | Industry tradition and competition has resulted in less flexible contract expectations |  | Industry adoption of Agile Methodology |  |

|  |  |
| --- | --- |
| **Key** | |
| Comment | Equivalent findings between Construction and IT industries |
| Comment | Almost equivalent findings |
| Comment | Different findings |