Instituto Tecnológico de Matemática Industrial

VALIDATION OF WEIGHING, PATTERN DEVELOPMENT AND PREDICTIVE MODELS IN AUDITS

Quality iAuditoria

SUCCESS STORIES

PROBLEM DESCRIPTION

Analysis, design and implementation of adequate statistical methodology to respond to the improvement requirements of the ICT tool developed by the iAuditoria company in the performing of audits and / or inspections

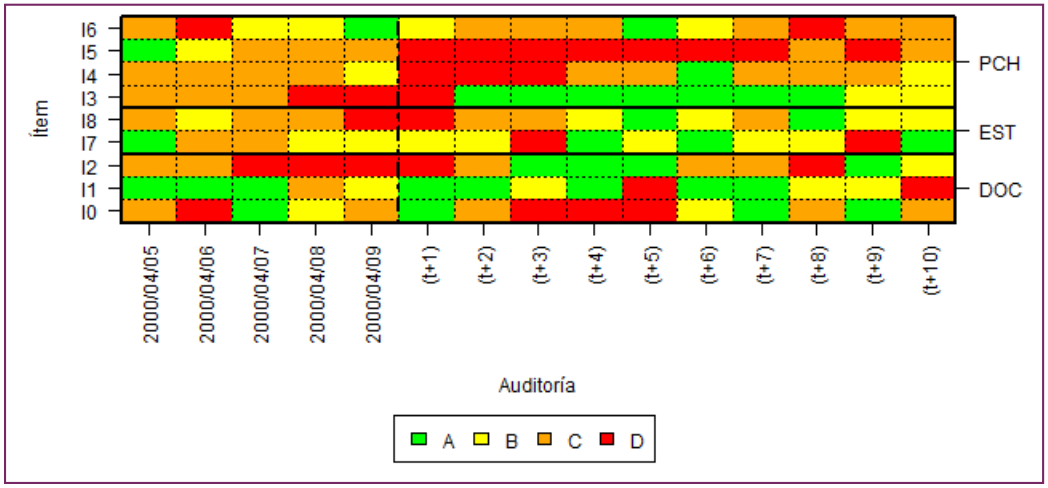
CHALLENGES AND GOALS

- ✓ Through the use of predictive models, value is added to the ICT tool, making it more attractive for potential iAuditoria clients.
- ✓ The iAuditoria´s clients will be able to obtain statistical results on which to support their decision-making, based on their own history data or information from similar clients.

PRODUCTIVE SECTOR: ICT, Food, Environment

MATHEMATICAL AND COMPUTATIONAL METHODS

- ✓ Use of Predictive models, to predict response variables from observations: univariate and multivariate Markov chains.



Valuations of the items (by row, grouped by blocks) of each recorded audit (by colu mn). (t+x) times indicate predicted outputs, based on all the historical information available.

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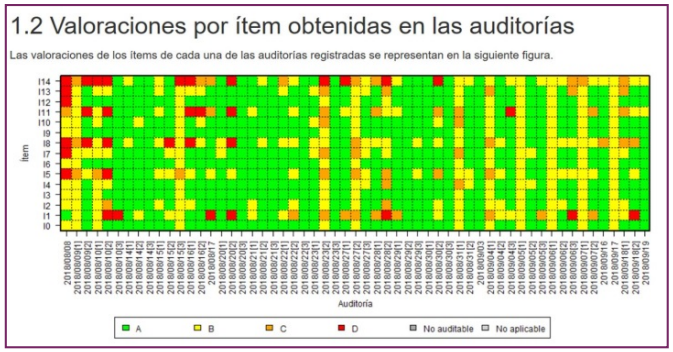
RESULTS AND BENEFITS

- ✓ Increase the efficiency and improvement of the ICT tool.
- ✓ Once an inspection and / or audit has been carried out, the application allows the generation of reports that, in addition to multimedia content, can include statistical results that allow iAuditoria clients to detect opportunities of improvement and anticipate possible risk situations.
- ✓ In general, the results provided by these reports have been improved, which facilitates decision-making in the companies and client organizations of iAuditoria.
- ✓ Value is added to the ICT tool, making it more attractive to potential iAuditoria clients.

Improve the efficiency of the ICT tool: Predictions (with uncertainty margin) for inspections and / or audits, which facilitates decision making



Valuations of the items (by row) of each recorded audit (by column)

Digital Twin

Instituto Tecnológico de Matemática Industrial

USC UNIVERSIDADE DE SANTIAGO DE COMPOSTELA

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iAuditoria
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