SUCCESS STORY

Statistica Data Miner at Randstad forecasts the development of employment figures

Complex forecasts as a push-button solution with the help of time series
BACKGROUND

For Randstad, the leading provider of personnel services, the knowledge of the development of employee numbers is a key to corporate success. Predicting the number of employees in temporary employment agencies was therefore a concrete project goal of the research team.

In a workshop Randstad and StatSoft specified the requirements of an analytical approach. The analysis is extremely demanding, as periods of up to five years should be forecast. StatSoft has created a turnkey button solution for this purpose. The software used is Statistica Data Miner.

ANALYTICAL APPROACH

The analytical idea is to predict the number of employees in temporary employment agencies and to use published labour market data within a time series forecast as reference series. The employment figures are then output as a forecast curve and as a table.

Since the analytics were mapped in the project interface of the Statistica Data Miner, new data published every six months can be included in the continuous forecast. New data is automatically imported and transformed as an Excel spreadsheet. Then outliers are dealt with, long-term cycles, trends and seasonality are calculated, and finally the detailed forecast is output.

All this is done at the push of a button. Parameters of the analysis, e.g. the desired time period, can be specified in user-friendly dialogues.

A graphical representation shows the flow of the analysis. Each step can be configured or transferred to similar tasks. In addition, every intermediate result can be called up directly.
ANALYTICAL DETAILS

After importing the data from an Excel spreadsheet, it is transformed and visualized. Two time series are now available. The interesting series „Employees in temporary employment agencies“ has too few values for the required five-year forecasts.

Therefore, the second time series „Employees in mixed enterprises“ is used as a reference series. This is possible because both series have the same short- and long-term behaviour. Outliers are automatically smoothed according to meaningful coefficients.

The reference series is analysed and modelled in terms of long-term trend, long-term cycles and seasonal components.

Seasonality is taken into account by monthly trimmed average values. Random components and residues are calculated and exponentially smoothed; long-term trends and cycles are polynomially adjusted.

The results are output in user-friendly tables and graphs. All intermediate results are directly accessible for detailed information.
CONCLUSION

The analytics produced have already been used for several six-month periods. The forecasts made proved to be reliable in each case. Statistica Data Miner provided the basis for Randstad’s successful business planning. Note: For reasons of confidentiality, this report does not cover all the finer points of the analysis.

„The analytical competence of StatSoft consultants and our industry knowledge resulted in a sophisticated solution that is future-proof and easy to use."

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ABOUT RANDSTAD DEUTSCHLAND GMBH & CO. KG

With an average of around 44,000 employees and 420 branches in 230 cities and a turnover of over EUR 1.3 billion (2006), Randstad is the leading personnel service provider in Germany. Randstad offers comprehensive personnel service concepts in addition to classic temporary employment. These include personnel consulting, outsourcing of personnel management and in-house services for handling major projects at customer companies on site.

More informationen: www.randstad.de

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