

PREDICTIVE ANALYTICS IN MARKETING

An overview of the usage and impact
of Predictive Analytics at ING Belgium



SUMMARY

Predictive analytics allows marketers to increase both the return and the relevance of marketing communications. However, only in a minority of companies, the usage of predictive analytics has been strategically embedded in the marketing department. While project successes are available in a wide variety of industries and applications, a limited number of companies currently succeed in deploying the benefits of advanced analytics in a structural manner.

In our five year collaboration with ING Belgium, Python Predictions has contributed to the first successes of predictive analytics, the industrialization of the analytics environment, and the growth of the department of predictive analytics within Marketing Intelligence. Currently, every six months, automated predictive analytics deliver one million high-quality direct marketing targets towards ING's active retail clients.

ABOUT ING BELGIUM

ING Belgium is a universal direct bank, with a strong focus on marketing. ING Belgium serves two million active retail clients through a network of 750 branches and an expanded direct-channels network. The strategy of awarded Marketing Director Philippe Wallez is based on the adagio 'Direct if possible, advice when needed'. ING is a global financial institution of Dutch origin, offering banking, investments, life insurance and retirement services to meet the needs of a broad customer base.

START OF THE COLLABORATION

In 2006, ING Belgium (www.ing.be) hired Python Predictions to help predict their residential clients' interests in recurrent savings products. Based on initial promising results, the collaboration between ING Belgium and Python Predictions soon turned into a more structural relationship. By the end of 2006, Python Predictions created a company-specific coaching on Segmentation and Predictive Analytics for ING Belgium. As a result, analysts

shared methodology and vocabulary, which accelerated interaction and productivity. After the first successes, it became the ambition of the Customer Intelligence department to create an actionable, proactive customer-centric approach allowing intelligent targeting based on highly interpretable predictive models constructed in SAS®.

THE NEED FOR SPEED

In 2007, an increasing number of predictive models were developed and put to use. The department of predictive analytics gained quickly in visibility, and additional developments were frequently requested. However, models were deployed manually by the analyst who had been responsible for building the model - upon simple request. Consequently, an increasing amount of time of advanced analysts was devoted to more operational tasks like scoring and evaluating model outcome. To reinforce predictive analytics usage, by the end of 2007, Python Predictions constructed a customized, SAS®-driven model industrialization environment for ING Belgium.

AUTOMATED USAGE OF ANALYTICAL OUTPUT

A first prototype of the automated environment was developed within three months, and contained almost all requested functionalities for five selected models. The full roll-out was performed over an additional three-month period, and contained all 20 available models. From that moment on, analysts could focus their skills on new developments, since both scoring and evaluation of previously constructed models were automated. The project was concluded with an extensive knowledge-transfer phase to allow ING Belgium to score existing models and industrialize new models without further intervention of Python Predictions.

EARNING A PLACE IN THE MARKETING DEPARTMENT

In 2008, the team of predictive analysts was able to focus increasingly on new developments, and internal processes were optimized. This enabled larger-scale evaluations of the results of predictive analysis. In an internal benchmarking study at ING Belgium, it was proven that campaigns driven by predictive analytics reached an increase in response rates by 67% on average when compared to intuitive business selections.



While business intuition delivers excellent input and validation to predictive models, predictive analytics had earned its place in the marketing department.

WIDE-SCALE ADOPTION OF ADVANCED ANALYTICS

The wide-scale adoption of predictive analytics was largely depending upon transparent communication between the analysts and other parties, such as campaign marketers, communication experts, campaign analysts, and marketing management. In a number of sessions, the analytical framework was challenged and approved, resulting e.g. in the creation of more intuitive customer profiles.

CURRENT STATUS

Within the five year process, the small yet specialized team of internal marketing analysts was complemented with only one external FTE. By joining internal and external expertise, in the second half of 2011, 35 predictive models were used to generate 250 million indications ('scores') of customer interests in specific products.

Only (the top) one million of these 'scores' were selected for direct marketing campaigns. Additionally, the selections were emphasized within the customer's e-banking environment and within ING branches, offering potentially 1.9 million customized offers towards 1.1 million clients on a weekly basis. As a summary, after five years of consistent developments, advanced analytics is fully embedded within ING's marketing department, and provides valuable contributions to its success.

ABOUT PYTHON PREDICTIONS

Python Predictions is a Brussels-based service provider specialized in data science projects with impact. The company has a strong legacy in predictive analytics projects in a business context, and success cases of applied data science in marketing, risk, operations and HR. Founded in 2006, Python Predictions is active in b2b and b2c retail, financial services, utilities, postal services, telecommunications and fundraising.

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For additional information, please visit www.pythonpredictions.com

