



data2impact

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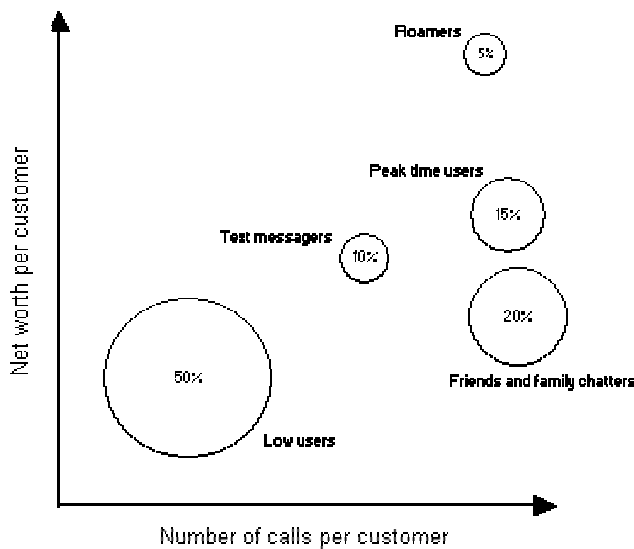
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Case Example: CRM Analysis

Decreasing subscriber numbers prompted a telecom provider to undertake a review of its customer base. data2impact were asked to analyse the behavioural characteristics of the subscribers and to develop a model to predict which subscribers were most likely to churn.

As customers cost much more to attract than to retain, it is vital to prioritise spending accordingly. This in turn requires a thorough understanding of customers' behavioural characteristics: The insights gained into churn probabilities and characteristics, as well as new-customer prospects, will provide a sound basis for decisions on marketing media, tailored CRM programs, and new product design.

We therefore started by segmenting the customer base to determine groups with similar needs and behaviour. The graph below shows a simple segmentation using the economic value of each customer and behavioural data (in this example the number of calls); in reality we used additional dimensions including handset preferences, demographics, contract details, and tenure, and used cluster analysis to group them.



The result was a number of customer segments with similar behaviour and billing characteristics. These groups were distinct and identifiable by their demographics and preferences, and therefore highly useful for the design of targeted marketing campaigns.

Given the vast amount of data items collected, we next used a data reduction technique (factor analysis) to identify those items that captured the most information on subscribers' behaviour. Based on this subset of variables we then developed a logistic regression model to be used for each customer segment: This model permitted to calculate the probability of churn for a subscriber in any particular month. As probability is a continuous measure, a threshold was selected above which the subscriber was considered a churner.



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As a result, it was now possible to contact only 10% of subscribers and capture 30% of churners – a significant improvement over random selection of subscribers, which would only capture 10% of churners (see graph below). The models were then used to identify the most important predictors of churn – e.g., changes in the choice of handset, in phone usage, or in the amount of travelling/roaming, - which would most likely trigger churn.

The result was a redesign of the product offering to both new and existing subscribers.

