



Survival Analysis

A white paper from BarryAnalytics

What is Survival Analysis?

A method of analysing and understanding the dimension of **time** – the length of time until an event occurs. The technique was first used in medical statistics in order to analyse survival times of patients, however, “patients” can now be replaced by “customers”. Survival analysis has been successfully used in many areas, including time remaining before customer lapses or churns, and time till next purchase.

What’s the Opportunity?

Survival analysis helps you to understand and act on the customer lifecycle. The analysis can be applied in two ways:

- To describe the profile of survival times before an event takes place, such as lapsing on an insurance policy, and compare different sub-sets of customers – such as segments, demographics or recruitment channels – in order to ascertain which types of customers are more likely to lapse early.
- To predict the future survival probabilities for each individual, in order to identify when each customer is likely to be at significant risk of lapsing and plan the actions that should be taken to avert this event.

Survival analysis can be used alongside other techniques such as lifetime value modelling and churn analysis.

Why use Survival Analysis instead of a Churn Model?

Survival analysis should not be seen as a replacement for churn modelling – the information it provides is complementary to churn propensities. While churn analysis uses a fixed time window for the churn event to occur in, survival analysis measures how the risk increases over time, and predicts the time remaining before each customer becomes more likely to leave than to stay.

Why use BarryAnalytics to help?

We have applied survival analysis in a variety of industry sectors, including mobile communications, financial services and fleet management, and therefore we have extensive practical experience with this technique.

BarryAnalytics is highly flexible in the support that we can provide – which may range from carrying out the survival analysis for you and sharing the knowledge gained, through to guiding your in-house analysts over the development stages.

What's the next step?

Please contact BarryAnalytics for more information, and to arrange an exploratory meeting.