

**GET THE MOST  
OUT OF YOUR  
MARKET WITH**

# **CHOICE MODELLING**

The launch of a new or altered product comes with both the opportunity for great success and equal chance of abysmal failure. Many firms spend inordinate sums of money on research and development for products, after such significant investment it is unsurprising that products are often launched or changed irrespective of sales projections. Often, a lack of conservative sales projections are over compensated with extensive campaigning.

However, in the words of Bill Bernbach, "A great ad campaign will make a bad product fail faster."

The canny product manager now invests in consumer research before launching new products or altering existing ones, and the best way to conduct this is through a form of research known as Discrete Choice Modelling.

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 **RESEARCH**

## What is Discrete Choice Modelling – what is it testing?

Discrete Choice Modelling is a quantitative technique used to better understand individuals' preferences and the utility placed on various product and/or service attributes in decision-making. The term 'discrete' is used because the technique is designed to mimic purchase behaviour: when confronted with a range of purchase possibilities, a consumer will not choose a weighted average of products! Rather, they trade-off the various product features based on what is important to them, and inevitably choose a single product. In this way, Discrete Choice Modelling accurately simulates purchase behaviour.

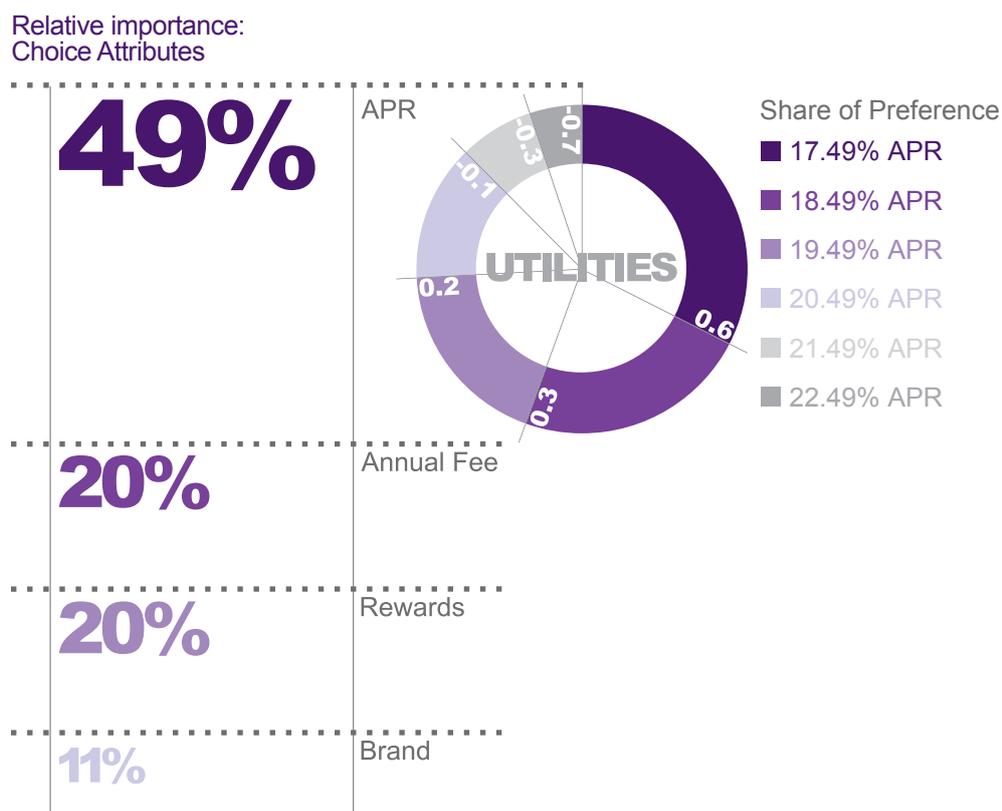
Choice Modelling evaluates the trade-offs that individuals make by estimating the joint effect of multiple product attributes simultaneously. For example, typical attributes in consumer credit card markets may include the Annual Percentage Rate (APR), rewards features, brand, and fees and charges to the consumer. It is the sum utility of these card attributes, relative to other offerings, that determines demand for the product. For non-customers, this demand will be reflected in acquisition, for existing customers, in usage behaviour (spend, and attrition levels for the card).

Choice Modelling can provide an indication of the price range that best affects positive product demand. Questions frequently asked by suppliers of financial services include 'What will be the effect on market share at various brand price premium levels?' and "How can we maximise our return from investment?" Choice Modelling can address questions such as these and consequently, is a valuable tool during new product development and the development of new pricing and communication strategies for existing products.

## The Experimental Design and 'choice tasks'

In a Choice Modelling survey, consumers are shown a small number of similar or related products and asked to state discrete product preferences. This is repeated a number of times in a series of 'choice tasks'. The products (or services) are described using a number of product attributes (e.g. price, brand, benefits), and each attribute is composed of several possible "levels" (19.49% APR, 19.99% APR or 20.49% APR; Exit Fees or No Exit Fees; Chip Reader or No Chip Reader).

**Figure 1**  
Relative Share  
Of Preference Of  
Choice Attributes



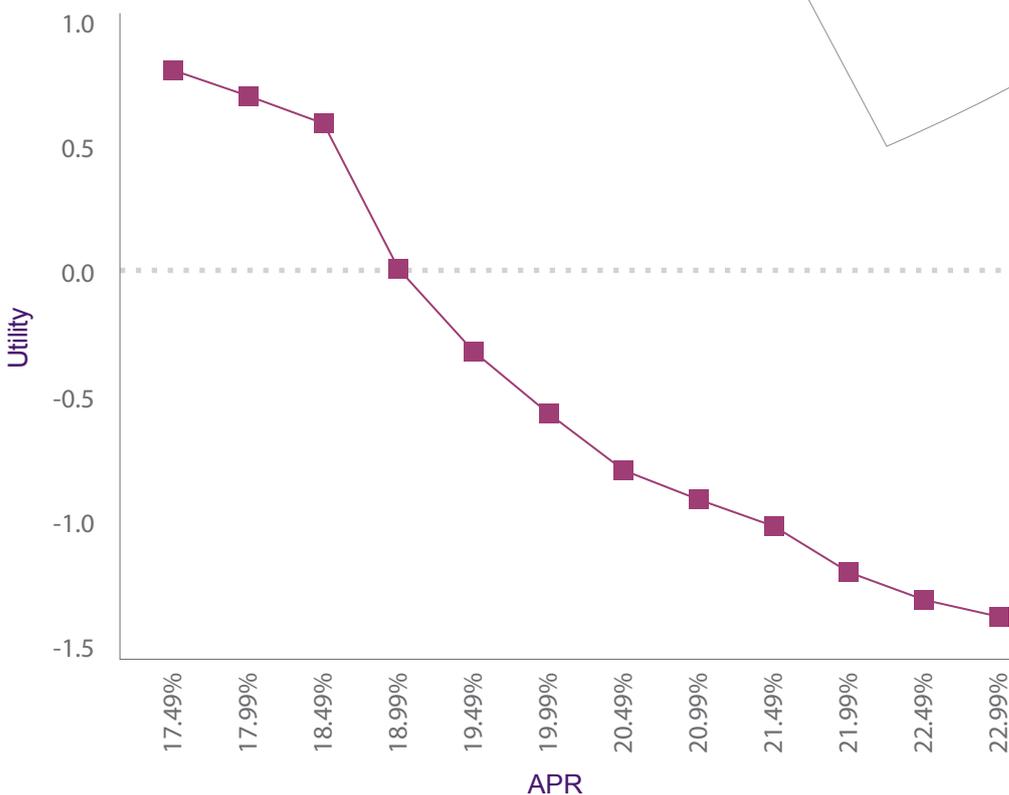
## Model Outcomes

The relative utility of the choice attributes provides an understanding of the importance of each attribute. Referring to Figure 1, this exhibit illustrates the relative importance for the attributes in a hypothetical Choice Model design in the Rewards Credit Cards market. The results suggest the attribute APR has a greater influence on the decision-making process, with 49% contribution in the decision-making process.

The pie chart on the right of the exhibit illustrates the relative share of preference of the different levels for the APR attribute, and as such constitutes (ceteris paribus) a relative estimate of demand at each level.

A central component of product development and subsequent marketing is price setting. Choice Modelling was the first popularly applied marketing research technique that enabled the monetisation of the respondents' choice utility. Price elasticity is used to determine how a pricing range will affect total revenue (refer Figure 2). In the hypothetical example shown here, as the price increases near the lower limit (i.e. from 17.49% to 17.99%), the effects on preference are less dramatic than are those after a certain point (i.e. from 18.49% to 18.99%). This information enables estimates of the optimum price before preference is likely to be significantly affected, which can assist the development of a pricing strategy to maximise return.

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**Figure 2**  
Price Elasticity  
Curve: APR

## Decision Support Tool: The Choice Model Simulator

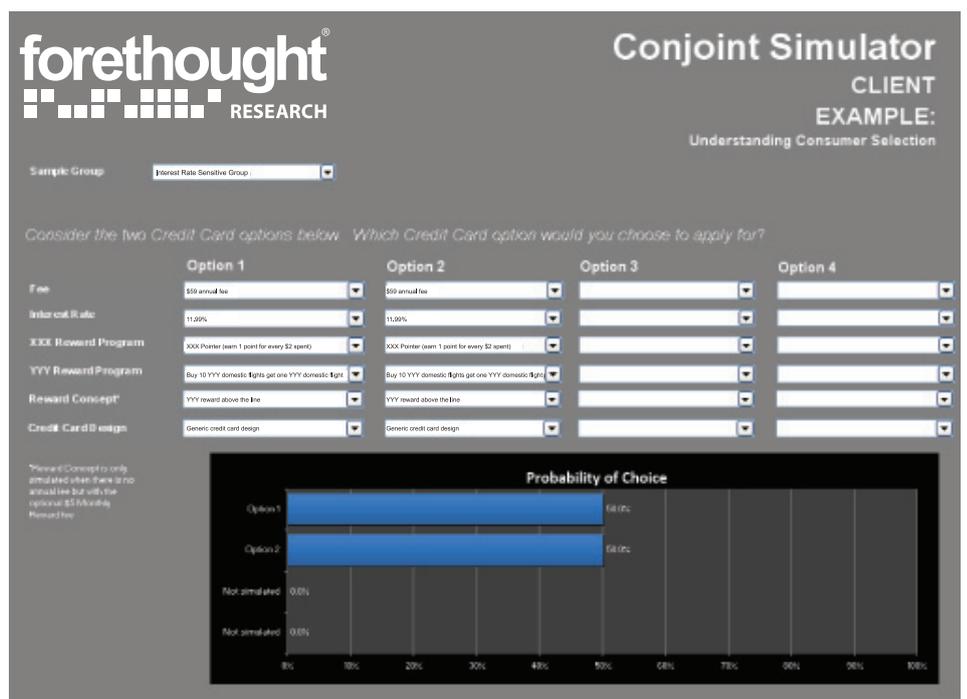
The outcomes from Choice Modelling may be summarised into a decision support tool or simulator (see Figure 3). Such a tool is valuable for product development and strategy refinement. The simulator is an interactive program that utilises the results of the choice model component to enable real-time product or service comparisons. By manipulating different combinations of product features in the design, estimates of preference for a limitless number of hypothetical products or services may be calculated. Such a tool can be easy to use yet powerful for aiding strategic business decisions.

## Link to Business Outcomes

An inherently elegant and attractive aspect of Choice Modelling is the link between individual purchase intentions and market share. In fact, by definition individual purchase probabilities, when weighted for sales volumes and frequencies and aggregated over the customer base form an estimate for market share. Therefore, when projecting sales figures for new or altered products, Choice Modelling should be the first port of call.

At Forethought, for existing customers choice probabilities are linked with likely spend and defection outcomes, so that changes to existing products can be quantified in these terms. For new products, the results of Choice Modelling are linked with likely uptake. This approach has been shown to be highly accurate at Forethought, where subsequent to launching products projected and actual uptake has been compared and shown to be highly correlated.

Discrete Choice Modelling remains as popular and useful a technique as ever in financial services, in such areas as credit cards, deposits, home loans, financial advice and superannuation.



**Figure 3**  
Forethought Choice Modelling Simulator