CUSTOMER SUCCESS STORY

dfs

Using machine learning techniques to increase revenue, conversions and engagement in a competitive retail market

CACI | DO AMAZING THINGS WITH DATA

Highlights

- Immediate performance impact: 4X conversion and 800%+ revenue

- Likelihood scoring and timing indicators based on purchaser behaviour

- Pen portraits to describe target customer segments

- Algorithm continually updated to reflect latest purchase patterns

- Data directly accessed from and integrated with the DFS CDP

About DFS

DFS, the UK's largest sofa retailer and manufacturer, aims to lead furniture retailing in the digital age. It has 118 showrooms in the UK and Ireland, a market leading-website and nearly 4,000 employees. Most famous for sofas, DFS also partners with leading lifestyle brands, such as Dwell, French Connection and Joules, to provide a wider range of furniture products.

CACI has worked with DFS for over 20 years and hosts its customer database, providing insight from CACI's proprietary datasets to support customer understanding and location strategy. Outputs include segmentation, machine learning models, communications strategy, store catchments and digital targeting algorithms.

To drive growth, DFS is always innovating its ranges and services, while continually developing a seamless multi-channel customer journey.

The challenge

Targeting relevant engagement between major purchases

DFS sells to a market where customers traditionally make infrequent, high value purchases, as Mike Aspinall, Data Activation Manager at DFS, explains: "The main thing we sell is sofas, with a repeat purchase average of seven years. This can be challenging for CRM, which is all about nurturing ongoing relationships. If you're working for a fast fashion brand, you have many opportunities to talk to customers throughout the year, to upsell or cross sell, as they have an ongoing desire for your products. But there are only so many sofas that a typical consumer needs"

Our challenge was to deliver a CRM strategy that would enable us to maintain relevant engagement in a targeted way. With our partner brands, we also sell a range of furniture and home accessories, including beds, rugs, artwork, cushions and other furniture. We wanted to understand the opportunity to encourage repeat purchase through a data lens - which customers might be open to further purchases, when they might be likely to make them, and what kind of products they might want.

"We asked CACI to build us a model that would enable us to assess and address that opportunity, by giving us a range of information about target customers and their behaviours and preferences."

The solution

An actionable scoring algorithm that updates continually

Mike asked CACI to work with a large sample of DFS' previous purchase data. "We have a rich customer database. CACI analysed two years' data to find people who had bought two items from us consecutively within that period, looking at their purchase patterns and pathways. They identified five frequent scenarios.

CACI mapped out the attributes of people who had made the two qualifying purchases using Ocean demographic and lifestyle data blended with DFS behavioural data. The analysis looked at the identified customers' over and under-indexing attributes, comparing them to people who bought the first item but not the second. Mike says, "We looked at attributes like age, earnings and the local area where they lived."

CACI trained a machine learning algorithm which is updated daily, incorporating the latest transaction and customer information. It is applied to the data in DFS' customer experience platform (CEP), appending data points to customer profiles.

Mike says, "Every individual on our customer database will be scored against the model, to see who is likely or not likely to make a repeat purchase. We also have a macro trends model that reflects the time between purchases. So for each of the five scenarios, we know the time period the customer is likely to wait before the second purchase, so we initiate communication at the right moment."

For every customer, there are two numeric scores. "There's a percentage likelihood score, and a decile indicating the period the second purchase could fall into. It's a complex machine learning model, but these two simple scores are actionable and reveal the opportunities clearly."

CACI also put together pen portraits for the segments of people who are predicted to be strong prospects, using Ocean demographic and lifestyle data. "This helps us get a sense of who they are and what they're like," says Mike. "It helps us to decide precisely when we should communicate and what about, as well as the best channel and format for the communication - right down to the language and context. For example, for some segments, we would lead with our interest free credit, while for others, we might focus on how convenient it is to buy everything you need from DFS, if they're likely to be furnishing an entire home."
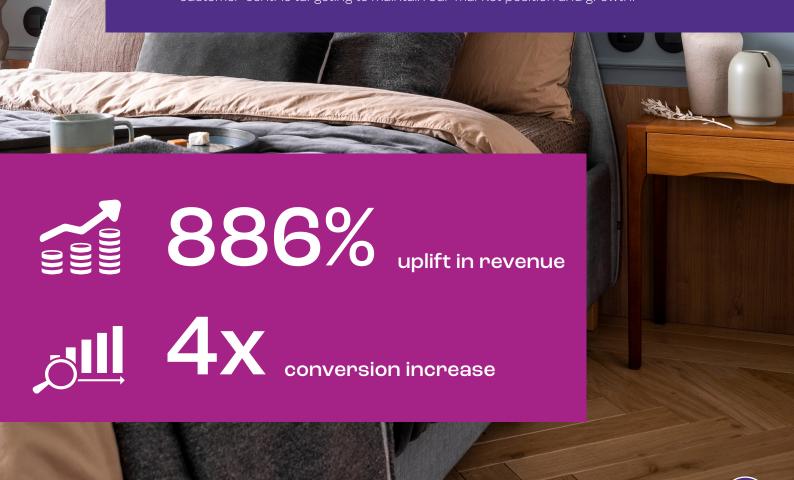
The benefits

Conversion and revenue uplifts through highly relevant, low-waste, accurately targeted multi-channel campaigns

DFS has been using the data for three months. Mike acknowledges that this is still early days, but he is confident that the work has already helped DFS identify an important opportunity. "We had fairly low expectations of the first email in a multi-month journey. But against the control group, we saw an 866% uplift in revenue from the email campaign alone, within 14 days. That's a four-times conversion increase, measured against a control group of people in the same segment who didn't receive the communication.

"For now, we are using the modelling for email campaigns - it's easy and cost effective to build them and track the results from different executions and tactics. We will roll the approach out to define activity in media channels, paid digital advertising, print communications and on-demand regional advertising, with integrated campaigns across all channels.

"There's a huge opportunity across the business. We have a lot of senior buy-in, which is key to success, as well as clear internal communication about the value of innovative data projects like this. DFS has a digitally driven culture - our leadership and operations teams understand the importance of data modelling for sophisticated, customer-centric targeting to maintain our market position and growth."

886% uplift in revenue

4x conversion increase

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"This project was a perfect fit for CACI as an expert data science partner. With our DFS mission to lead furniture retailing in the digital age, machine learning is crucial to engaging our customers with truly relevant, timely communications. We have been working with CACI for decades - their team understands our business and data extremely well and we have a strong relationship."

Mike Aspinall, Data Activation Manager, DFS

To find out more about how
CACI can help you support your
organisation, please get in touch.

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