QUICKLIZARD

Developing a Commission Optimization Platform for an Online Travel Agency

The Client

A European-based online travel agency. 70% of sales are driven by meta search engines. The remaining 30% of sales come from direct traffic, comprised of organic traffic, keyword advertising and SEO.

The Main Challenges

Online travel agencies are at the forefront of dynamic pricing. They need to utilize every piece of information they have to increase their profit margins while staying competitive.

Different tactics may be used for different product types (flights, hotels, packages, cars, cruises) and channels (organic, SEO, SEM, social, meta search).

The customer developed an advanced booking engine that combines results from multiple GDSs, low cost airlines and charter flight options to provide travelers with the lowest-priced options on the market.

However, their home-grown system required pricing managers to manually determine their commission markup from net cost. The pricing managers didn't consider competitor pricing or environmental factors like time of day or weather into their pricing, and applied changes rarely, due to limitations of manual work.

The QL Solution

QuickLizard implemented a hybrid machine learning and a/b testing approach. The platform predicted the probability of conversion for each customer based on user behavior and competitor pricing. A simulator then recommended the optimal price point for each permutation.

Additionally, an accurate cost function was applied to correctly reflect parameters not included in the net fare, including ancillary booking, quota-based incentives from vendors, and halo-effect sales.

The recommended markup was applied by pricing managers using the existing home-grown system. The meta search traffic utilizes a separate pricing tool. QL implemented a bidder that uses machine learning and reinforcement learning to predict the lowest bid offered by the competition for each itinerary. Our client used this information to create a set of rules and constraints to propose a price.

The Result

The QL platform combined demand data, competitor analysis and user behavior to recommend real-time optimized commission prices for the online travel agency platform. As a result of QL platform recommendations, after an initial setup period, our client has seen an 18% increase in revenue and 7% increase in profit.

The Future

We are currently working on improving profitability for our client's other products, including hotels, rental cars and packaged vacations. In addition, development of dynamic pricing for ancillary services to flight bookings is in the design phase.