How Profitable Will Your Frogs... Er, Your Customers...Be in the Future? Here’s A Tool Tailor-Made for Marketing Geeks and Statistical Freaks

Editor’s note: Researchers Roland T. Rust, V. Kumar, and Rajkumar Venkatesan have posited that it’s possible to predict future customer profitability. Their forthcoming study, to be published in the International Journal of Research in Marketing, presents a mathematical model that uses recent marketing contact, purchase behavior, and gross profit per customer to anticipate purchase behavior for three years. The model, they say, is valid for both B2C and B2B marketing. The intricacies of the formula are too much for Marketing AdVents, but – for all our formula loyals and math mavens – here’s a heads up, along with a very brief and non-technical look at what the innovative researchers have come up with. For more, you’ll have to wait for the IJRM real deal. Take it away, professors...

Many businesses have become aware that targeting profitable customers can make marketing spending more efficient, an approach that is increasingly possible due to the proliferation of historical customer databases. It is even better to target the customers who will be profitable.

In general, the existing literature tends to show that predicting future profitability from customer databases is deceptively difficult and that simple methods tend to perform as well as more complicated ones. Building a realistic model that accurately predicts future customer profitability is, thus, an open research question that we attempt to address.

We adopt the "always a share" approach for predicting future profitability because it is more appropriate for the non-contractual setting of our study. The always a share approach assumes that there is only dormancy in a customer-firm relationship and that customers never completely terminate their relationship with a firm.

This assumption allows for a customer to return to purchasing from a firm after a temporary dormancy and also to retain a memory about his or her prior relationship with the firm. Hence, in this approach, we measure future profitability of a customer by predicting his or her purchase pattern over the prediction period, but we do not predict when a customer would terminate their relationship with the firm.

Following the literature in choice modeling, we assume that at each time period a customer has a latent utility for purchasing from the firm. This latent utility is assumed to be a function of customer characteristics or observed heterogeneity across customers, such as firm size and industry characteristics; past purchase behavior; control variables, such as overall macro-economic trends (e.g., GDP); and marketing contacts, such as number of contacts made by the sales personnel. The various customer characteristics that were included were the sales of an establishment (a measure of the size of the establishment) and an indicator of whether the establishment belonged to the B2B industry category. For the variable, “number of employees,” we use the average value of the customer characteristics over the analyses time frame. The customer characteristics, therefore, do not vary over time.

While predicting future customer profitability is not futile, it requires a sophisticated modeling approach. We provide a new approach that significantly outperforms naïve models. A model based on simulating a customer’s future buying behavior produced large improvements over simpler models in predicting future profitability.

Our proposed model, which includes simultaneous equations and a Monte Carlo simulation approach, outperformed competing models in a large-scale empirical test. We conclude that predicting future customer profitability is possible and can be used to drive customer-specific marketing actions. We may be able to predict systematically whether some of our “frogs” will become “princes” after all.

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Integration Must Be Complete.
The tools necessary to deliver the increased expectations of today’s consumer will accomplish three objectives: 

- Integrate information from various channels and data sources;
- Perform and deliver analytics at all levels of the business; and
- Promote a targeted, personalized customer experience.

The business strategy will drive the technical solution -- not the other way around.

- Content and data management will populate the marketing environment with company data that: a) is predictive and descriptive, b) allows for integration of any type of source data, c) supports high volume feeds, d) honors privacy, and e) can easily incorporate new data sources.
- Channel integration includes multi-channel, consumer-level targeting (not simply campaign-level targeting). Channel integration supports triggered, scheduled, and ad-hoc optimization.

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