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Measuring Medium-Term Customer Value Through Conjoint Analysis

Abstract: Medium and long-term customer value – a key figure to individualized marketing – must account for the development potential of a client and cannot be read from accounting figures alone. Against this background a scoring model has been developed to individually evaluate each potential in a database of several thousand customers. By using conjoint analysis and an innovative interviewing technique, all data collection could be carried out over the telephone. The project could thus be completed within months and on a minimum budget.

Introduction

Customer targeting and retention strategies have become a cornerstone of corporate strategy. This article focuses on midrange (1 to 2 years) forecasts of customer value through an adaptation of well developed conjoint analysis techniques.

Process

Within the majority of B2B settings, the sales force (SF) has a good knowledge of the current sales potential and can also judge its medium term development. Directly querying a customer value from the sales force shows serious deficiencies:

1. Estimates can be given only for a fraction of all customers – typically the exceptionally large ones, while the lion's share of

untapped sales potential often rests with medium sized customers. This is due to their sheer number, an often lower price consciousness as compared to major customers, and a less contested buying budget.

2. SF estimates are often heavily biased towards customers of their liking.

3. It is hard, if not impossible, to identify the influence factors for customer attractiveness solely from an overall potential estimate.

As an advantage, SF questioning will score for speed, cost effectiveness and acceptance of results and measures derived. Against this background, a four-step procedure was chosen:

1. Data collection only from unanimously respected peers within the organization.

2. Scoring the whole customer base through the model derived (a fully automated step).

3. Presenting some top ranking and neglected customers within each sales district to the sales manager in charge, requesting cross-evaluation of the results.

4. Implementing a customer intensification program for customers where untapped potential seems largest.

This article will focus on step (1).

Conjoint Analysis

Methods of Conjoint Analysis (CA) are frequently deployed within the context of new product design. As a distinctive feature, CA will try to analyze, uncover and forecast each subject's (=customer's) preferences on an individual basis and only form groups in a second step by aggregating similar preferences structures ([1], [3] for a typical overview). As the basic assumptions and algorithms are well documented and popular, I won't go into details here.

Characteristics of the case

This case study has applied CA to customer [4], not product scoring [2]. Still, CA is about holistically evaluating subjects characterized by a feature list.

This list is constructed from top management interviews and contains 7 variables with discrete measurement levels (e.g. income situation). The subjects queried during CA were district SF managers. Due to the geographical size of distribution region, financial restrictions and a tight time schedule, telephone interviews seem to be the interviewing technique of choice. This in turn, establishes several requirements:

- An exceptionally easy structure of questions.
- Questions only with direct and immediately intelligible relevance for the interview goal. Any other sort will create reluctance.
- Ease of interview resumption after disruptions.
- Immediate feedback of results after interview termination.

Choice of an appropriate CA technique

Standard CA techniques do not fulfill the requirements listed because the typical task in this case would be to order 10 customers characterized by slightly different values along 7 criteria – a task simply unmanageable over the phone.

Point*Wizard [5] has proposed a system that resorts to far easier questions and will conduct the interview through a dynamic, web-based interface. All questions are so called dilemma situations, where the subject has to rank only two alternatives and the difference between those two is normally restricted to just two variables (see figure 1).

Figure 1: Example of a dilemma situation

The interviewee will only indicate which alternative he prefers (or show indifference). Each such answer will reveal more of the preference structure, and the program will continually adapt to the information already gathered and ask only questions that offer a maximum of information gain. In summary, P*W tries to extract a subject's total preference with as few dilemma type questions as possible. This process is hidden from the user.

The approach also carries deficiencies, e.g. an unusually monotonic interview setting, and furthermore has never been tested in the context of customer rating.

Case study: Customer value in the agricultural engineering industry

The company under consideration manufactures a broad range of high tech farming equipment, which is marketed through its own sales organisation. Customers are not farmers in the romantic sense of the word, but rather modern industrial enterprises, professionally managed according to strictly economic criteria.

Criteria Selection

Extensive discussions with all expert groups uncovered a series of relevant and viable farm types (e.g. dairy farmer in tillage area (< and > 35 dairy cattle), field farmer (< and > 50 acre)). Notions such as "large dairy farming with integrated forage production" or "small, self-sufficient bull feeding farm" are actually signifying a carefully orchestrated set of operational variables that only through their coordination will ensure the

farm's long-term survival. Variables such as size (both acreage and animal number), on the other hand, are no meaningful predictors of viability when considered in isolation. Accordingly, the survey concentrated upon the relative development prospects of the types. There are other criteria that have additional and independent influence on mid-term customer profitability, such as relative importance of the agricultural income source (main-/side-/fringe income), development strategy (muddling through versus planning), master data (age, gender, etc.). In the current customer file almost all combinations of these characteristics can be identified, confirming their relative independence. They were therefore queried in addition to farm type.

Study outline

The typical participant of the questionnaire is a regional SF manager who has gained peer recognition across in the entire company. All interviews were carried out within one month during low workload winter.

Realization

The main challenges during the computer assisted interviews primarily arose from length interviews and monotonous questions, while the intellectual difficulty of questions never was an issue. Using simple tricks from the moderator's toolbox, not a single interview was terminated prematurely. It took 55 minutes on average to complete and presented an average of 69 dilemma situations.

First results

As in any CA, an individual scoring scheme is calculated for each interview. To make the individual scoring schemes comparable, all profiles must be normalized e.g. to a spread of 0 to 100 points for worst versus best customer case on file (see figure 2).
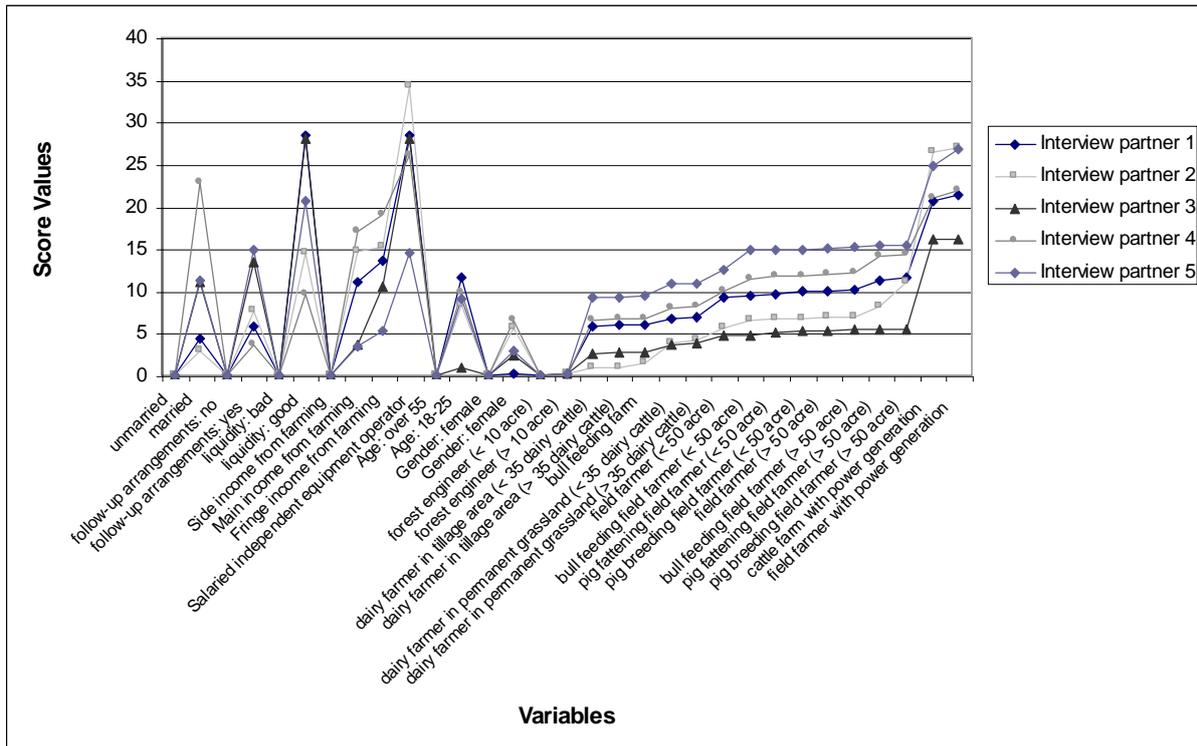
Figure 2: Score values of interview partners

After this step, a result as indicated in figure 3 Customer-ranking exemplified by two interviewees is achieved. For all subjects, all variables queried contribute substantially to the ultimate score. There is no such thing as a dominating variable. All target group identification based on a single customer feature would be misleading; the effort to calibrate the scoring model seems warranted.

Interview partner 1	Criteria								
Name (click to open)	Marital status	Follow-up arrangements	Liquidity	Income source	Age	Gender	Farm type	Score	Rank
---	married	yes	good	Main income from farming	over 55	male	dairy farmer in permanent grassland (> 35 dairy cattle)	725	1
==	unmarried	no	good	Salaried independent equipment operator	between 18 and 55	male	dairy farmer in tillage area (> 35 dairy cattle)	720	2

Interview partner 2	Criteria								
Name (click to open)	Marital status	Follow-up arrangements	Liquidity	Income source	Age	Gender	Farm type	Score	Rank
---	married	yes	good	Main income from farming	over 55	male	dairy farmer in permanent grassland (> 35 dairy cattle)	1211	1
---	unmarried	no	good	Salaried independent equipment operator	between 18 and 55	male	dairy farmer in tillage area (> 35 dairy cattle)	897	2

Figure 3: Customer-ranking exemplified by two interview partners (unstandardized scores)

Summary

The project has proven the feasibility of determining a customer value through intelligent questioning of sales force peers. By utilizing a version of conjoint analysis that is geared towards telephone interviewing, data collection can be carried out in an economical and timely manner while at the same time avoiding the common pitfalls of direct questioning. While not in the focus of this paper, the results can and have been transformed to concrete marketing programs.

Literatur

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