

MORE THAN THE SUM OF ITS PARTS: CREATING VALUE BY PRICE FRAMING

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ABSTRACT

Rational choice predicts that the way prices are presented is irrelevant with respect to consumer behavior as long as the overall terms of exchange remain the same. From a psychological point of view, these assumptions are implausible. Studies have shown that the way price information is presented influences perceptions of value. By taking note of results given by descriptive decision research, marketing can create additional value for suppliers. An experiment with $N = 230$ consumers analyses the effect of price framing on consumer rated attractiveness of equivalent mobile telephone contracts. The results imply that the “perceptual price level” is influenced systematically by the configuration of price structures.

INTRODUCTION

‘Price optimization’ includes the determination of the price level as well as the formation of the price structure, i.e. the way the price is presented. The price structure consists of the multidimensional composition of a price through different elements or bundle components. This way, identical effective prices can be expressed by very different price structures. So far, price optimization is usually based on classical price management and its axiomatic assumptions of the microeconomic price theory. Research in consumer psychology suggests that shifts in preferences could be determined by the way prices are framed [2] [6] [7]. Individuals sometimes might overweight minor but easy to evaluate attributes (e.g., booking service when buying a movie ticket) that would be overlooked under an all-inclusive price format. This finding has decisive implications on suppliers’ sales-related pricing policy. In particular one would have to distinguish between “effective” and “perceived” prices. While the effective price is determined objectively, the perceived price reflects the subjective perception and evaluation of consumers. The perceived price is the psychological representation of the effective price. The paper will scrutinize whether and how descriptive decision research can offer an innovative approach to price policy.

ASSUMPTIONS OF DESCRIPTIVE DECISION RESEARCH

Descriptive decision research is based on the assumption that different types of judgments exert influence on price evaluation [1]. Most important are the “price level judgment” (the estimation of the effective price), the “value for money judgment” (an absolute evaluation of the relation between benefit and cost), and the “competitive price judgment” evaluating a price in relation to prices of competing offers. It is expected that all judgments can be influenced by the pricing structure. The effect depends, among other things, on the number of splitting elements and the (equal vs. unequal) distribution of the total price among the elements. Of importance is the finding of declining sensitivity of the value function [5]. It suggests to segregate gains and to aggregate losses as much as possible, because listing the price of each bundle component increases the negative impact of the loss of money associated with a transaction

[3] [4] [8]. On the other hand, gains should be distributed as equally as possible, which means they should be of the same amount. Another assumption is that the single judgments for multidimensional prices are made successively, i.e., they are made firstly for each single component of the price structure and then afterwards are being aggregated when two offers are compared.

HYPOTHESES

Bases on these and other assumptions the following hypotheses were stated:

Hypothesis 1: If two offers of the two suppliers A and B are of the same total value (i.e., have the same effective price), but differ on the level of two components of the price structure, *and if the relative difference is identical for both*, none of the offers is preferred, even if the absolute differences for the two components of the benefit-/cost-structure have a different value, from a superficial point of view.

Hypothesis 2: If two offers are of the same total value (i.e., have the same effective price), but differ on the level of two components of the price structure, and if the *relative difference is different*, then consumers prefer the offer which is more advantageous, i.e. cheaper with regard to the relative difference.

Hypothesis 3: If two offers are of the same total value (i.e., have the same effective price) but differ on the level of three and not only two components of the price structure, i.e. if one price difference is distributed on two components of the price structure, the above (hypothesis 2) stated tendency to prefer the offer which is more advantageous is strengthened.

Hypothesis 4: Consumers don't compare competing offers on the level of a total evaluation, but compare them stepwise according to the sequence given by the price structure. Hence, consumers don't aggregate the components of the price structure of an each offer first, and then compare it to another offer, but compare the competing offers A and B on each level of the components of the price structure.

METHOD

In the following the way consumers compare different structured but equivalent (with respect to the "effective prices") offers is scrutinized by applying an experimental approach. A within-subject design with three treatments is applied. Subject to evaluation are offers for cell phone services. The components of the price structure were: a) price to connect the phone, b) mobile phone price, c) monthly basic charge.

The offers in **treatment 1** differ in two (price of the mobile phone, monthly basic charge) out of three components. The relative price-differences have the same, but oppositional relation: The price of the phone in offer B is around 60% higher compared to the price in offer A, while the monthly basic charge in offer A is also around 60% higher compared to B. The absolute difference of the phone price is much higher, but the two differences balance each other during the runtime of the contract of 24 months. The total costs, which were not told to the consumers, are 453 Euro for both offers A and B.

In **treatment 2**, the absolute difference of the phone price was the same as in pair 1 (98.40 Euro). But the relative difference was increased up to 150%, due to the decrease of the absolute phone prices. The total costs were the same again for A and B with 354 Euro.

In **treatment 3**, the absolute difference of the phone price was distributed over two components of the price structure, so that the two offers differ in three components now. The relative difference of the

phone price was reduced a little bit, but the relative difference of the installation fee was risen in favour of offer A (0% in treatment 1, 60% in treatment 3). Offer A is now more advantageous than offer B in two out of three components. The total costs of the two alternatives are the same again (453 Euro). 230 respondents in Germany were asked to indicate for each of the pairs in the three treatments, which offer (A or B) they consider more attractive (dependent variable). Respondents were interviewed face to face.

FINDINGS

Hypothesis 1 had to be rejected. Obviously, the high absolute difference of the phone price of almost 100 euros made the interviewees prefer offer A. The fact that the relative difference of the components of price structure was identical at 60% did not lead to a situation in which none of the offers was preferred. Hypothesis 2 can be maintained: Offer A was chosen 163 times (70.9%), offer B only 67 (29.1%) times. The difference is statistically highly significant ($p \leq 0.001$). The finding strengthens the assumption that consumers don't make their decision by appropriate calculations. Single prices are not aggregated correctly to a total price and then compared to each other, but comparative (relative) single judgments are made, which are then compared to each other. Hypothesis 3 can be kept as well: 183 consumers (79.6%) preferred offer A, only 46 (20.4%) offer B ($p \leq 0.001$). With respect to hypothesis 4, the findings confirm the assumption that multidimensional offers are evaluated and compared successively. In all cases, a calculative evaluation of offer A and B would have been possible, which should have led to indifferent judgements in all three treatments. Even when consumers reported that they had based their judgements on calculations, no difference in the evaluation could be observed: consumers who calculated the offers also opt significantly more often for offer A.

IMPLICATIONS

The examination implies that the evaluation of attractiveness of offers of the same value (i.e., offers that have the same effective price) depends on the design of the components of the price structure. With respect to the evaluation of the difference between two offers, the relative difference between single bundle components of the price structure seems to be more important than the absolute difference, even if only absolute differences in prices are of relevance when comparing two offers. The results imply a completion of the traditional ideas of the "classic price management" that primarily considers the "effective" and not the "perceived" price.

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