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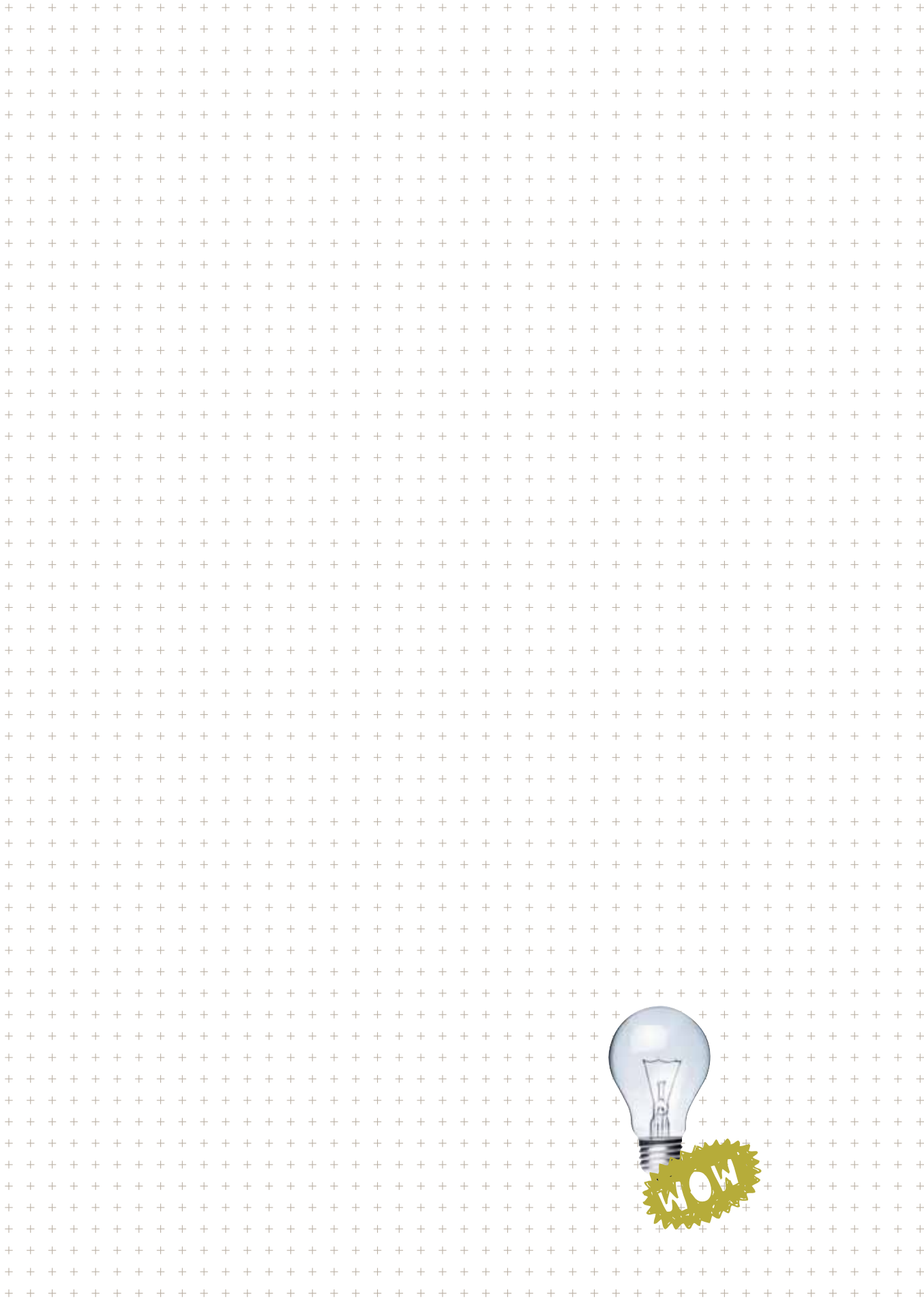
GfK

Marketing

Intelligence

Review





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**New
Thoughts**



EDITORIAL

Making effective use of marketing intelligence is one of the most important challenges facing professionals today. Hundreds of thousands of marketing researchers, managers, academics and service providers all over the world have to decide on a daily basis how to collect and process information about market developments, how to transform this information into insight, and how to incorporate the insight into their marketing decisions.

Keeping up with the latest academic developments in this field is no easy task. Many papers are scarcely understandable to practitioners, too long-winded for their purposes and full of insignificant details. Nevertheless, they contain valuable knowledge.

This new journal, GfK Marketing Intelligence Review (MIR), is an attempt to deal with such dilemmas. It offers specialist marketing intelligence by top academics, either published or pending publication in leading journals, and addressing key issues. We begin by selecting research papers which have been intensely reviewed and scientifically scrutinized. With the help of the original authors and professional editors, we adapt them to the day-to-day decision support needs of marketing practitioners, making them compact, without the usual detailed presentation of scientific background and methodology, but nevertheless informative and fascinating.

MIR will highlight new marketing research and data processing methods, and studies offering new perceptions of the market and consumer behavior and the effectiveness of new marketing strategies. The articles therefore come from many different areas of marketing science, such as consumer behavior theory, strategic management, market research, data processing and marketing-mix optimization. Marketing intelligence is more than just pure marketing research; rather it involves the intelligent use of information about markets and marketing. It includes data acquisition and processing techniques, but it also goes far beyond these.

Much of the research documented in this journal is based on extensive and elaborate empirical studies from all over the world. The authors describe the insights they

have gained using the very latest analysis methods, and how they have ensured that these are valid and representative. Our mission is to transfer this precious marketing science into everyday practice.

In this respect, we are following the management philosophy of the GfK Group, the world's fourth largest marketing research company, based in Nuremberg, Germany. It was founded by the University of Erlangen-Nuremberg seventy-five years ago, so it has strong academic roots.

GfK offers its clients fact-based knowledge – market insights that go beyond pure figures – in more than one hundred countries around the world. This knowledge is intended to help marketing decision makers deal with their responsibilities more effectively. The company still benefits from its close connections with the academic world, which are cultivated through institutions such as GfK chairs and academies and numerous corporate research projects.

MIR is intended to be an additional platform for the transfer of academic knowledge into marketing practice. It replaces the quarterly German-language *Jahrbuch der Absatz- und Verbrauchsforschung* and also the annual English version.

The journal is aimed not only at senior marketing researchers and decision makers, but also at marketing educators, and is published twice a year by GfK Group. The editor-in-chief is responsible for selecting and compiling the articles, a task I have accepted for the first volume. I am actively supported by an international editorial board which carefully examines each selected article, and keeps a close, critical eye on its "translation" into a practice-oriented version.

I very much hope that we achieve this task successfully and generate a benefit for readers. Please do not hesitate to give us your feedback.

Nuremberg, May 2009

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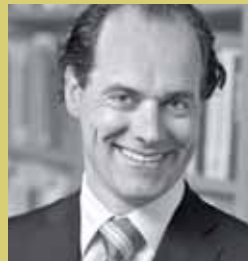
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{New Insights}

OH!
SPECIAL
OFFER



CREATING SHOPPING MOMENTUM

Ravi Dhar, Joel Huber and Uzma Khan

New research on consumer behavior throws light on what creates a mindset that leads customers to keep on shopping. What underlies shopping momentum is a shift from a deliberation mindset to one of implementation. In the deliberation mindset, the potential customer evaluates the pros and cons of a purchase, rather in the manner suggested by the theory of utility maximization. However, once they have shifted to the implementation mindset, they are focused on purchasing – and this is just what they do. When they make the shift to an implementation mindset, they will carry on shopping without engaging their evaluative capacity until something intervenes to break the momentum.

Retailers have long believed that getting potential customers through the door is one of their main challenges. Marketers seek to lure customers with attractive offers and loss leaders, and once through the door, in-store marketing sets out to ensure that the first purchase will be followed by subsequent ones. This is the same strategy employed by catalogues which make use of extensive mailing campaigns spiced with attractive offers; experience shows that once a customer has the catalogue in their hands they will continue to buy from it.

Yet as every store or catalogue category manager will tell you, this does not always prove to be the case. Not every customer footfall translates into a stream of purchases, and not every catalogue subscription produces sales. All too often the customer footfall remains just that – though the individual has been attracted into the

store and might indeed purchase a single item, they often leave without buying anything further. Even worse, on many occasions they make no purchase at all.

One possible explanation for this is supplied by the theory of purchasing behavior, which views each of the customer's purchases as a "utility-maximizing choice". In this explanation, the customer evaluates each purchase rationally and separately, according to the value the product or service might offer them. In support of this theory, there is a good deal of evidence that consumers do indeed make rational choices. The plethora of consumer magazines and comparison websites are there to supply the hunger for more information about consumer products. It is also true that many people sometimes research the alternatives on offer before making a significant purchase.

But is this the whole story? In the utility-maximizing view of shopping behavior, the impact of budgetary constraints suggests that once any single purchase is made, this would make each subsequent purchase less likely – the very opposite of what the marketers are seeking to encourage. And where does impulse buying fit in to this view of shoppers' behavior? Many an intrepid shopper has found upon returning from an expedition that they are loaded with goods they had not originally set out to buy. The utility-maximizing view of purchasing behavior does not provide a full explanation of what is happening here. So what is really going on?

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The article is adapted with permission from the Journal of Marketing Research published by the American Marketing Association: *Dhar, R., Huber, J. and Khan U., "The Shopping Momentum Effect", Vol. XLIV (August 2007), 370-378.*

It's all a matter of mindsets

Recent research by Ravi Dhar, Joel Uber and Uzma Khan throws new light on why some people just carry on shopping until they drop – a phenomenon which the researchers call shopping momentum. They believe that what underlies this momentum is a change in mindsets – a shift from a deliberation mindset to an implementation mindset. It has already been established that such a shift will change both the customer's cognition and their behavior. In the deliberation mindset, the potential customer evaluates the pros and cons of a purchase, rather in the manner suggested by the theory of utility maximization. However, once they have shifted to the implementation mindset, they are focused on purchasing – and this is just what they do. When they make the shift to an implementation mindset they will carry on shopping without engaging their evaluative capacity until something intervenes to break the momentum.

To gain a full understanding of this phenomenon, the researchers conducted a number of experiments, each of which is helpful in illustrating various important aspects of shopping momentum.

In the first, they looked at how the purchase of a primary item can influence the purchase of a second, unrelated one, which they described as the target item. The basic idea here is that the first purchase creates shopping momentum, therefore increasing the likelihood of subsequent purchases. However this likelihood depends on the buyer's current mindset, which can be understood as the commitment to the purchasing process, itself based on a continuum between a purely deliberative and a purely implementation-based buying orientation.

After being paid for completing a questionnaire, the participants (all of them students) were told that they could either keep all the money or use some of it to make purchases. The researchers divided them into three groups. A "high driver" group was offered a highly attractive primary item, namely an educational CD, that was likely to be purchased by members of this group. For the "low driver" group, the researchers selected a relatively unattractive primary item, namely a lightbulb, which had a lower likelihood of being purchased. A third control group was not given any purchase opportunity. The chosen target item was a key chain, which was unrelated to either of the primary items. A separate test ensured that while students were more likely to purchase the CD than the lightbulb, they

believed that both of these items were of comparable monetary value. The prices for the driver item and target item were held constant across all experimental conditions.

As expected, the attractiveness of the primary item had a significant influence on whether it was chosen. Seventy-two percent of the high-driver group purchased the educational CD, while only 15 percent of the low-driver group chose to buy the lightbulb. This result is not surprising in itself, as people tend to buy products they regard as important and personally relevant.

More significantly, and as predicted, people tended to keep on buying after making initial purchases they considered attractive. Those who made the initial purchase of the CD were much more likely to keep on shopping and purchase an unrelated item. Figure 1 shows that 65 percent of those who had bought the CD (the high driver group) went on to buy the key chain, but only 37 percent of those who had bought the lightbulb (the low-driver group) did so. Moreover, the probability of purchasing the key chain did not differ significantly between those who were initially offered a lightbulb and the control group, who were not offered any initial purchase opportunity (*Refer to figure 1*).

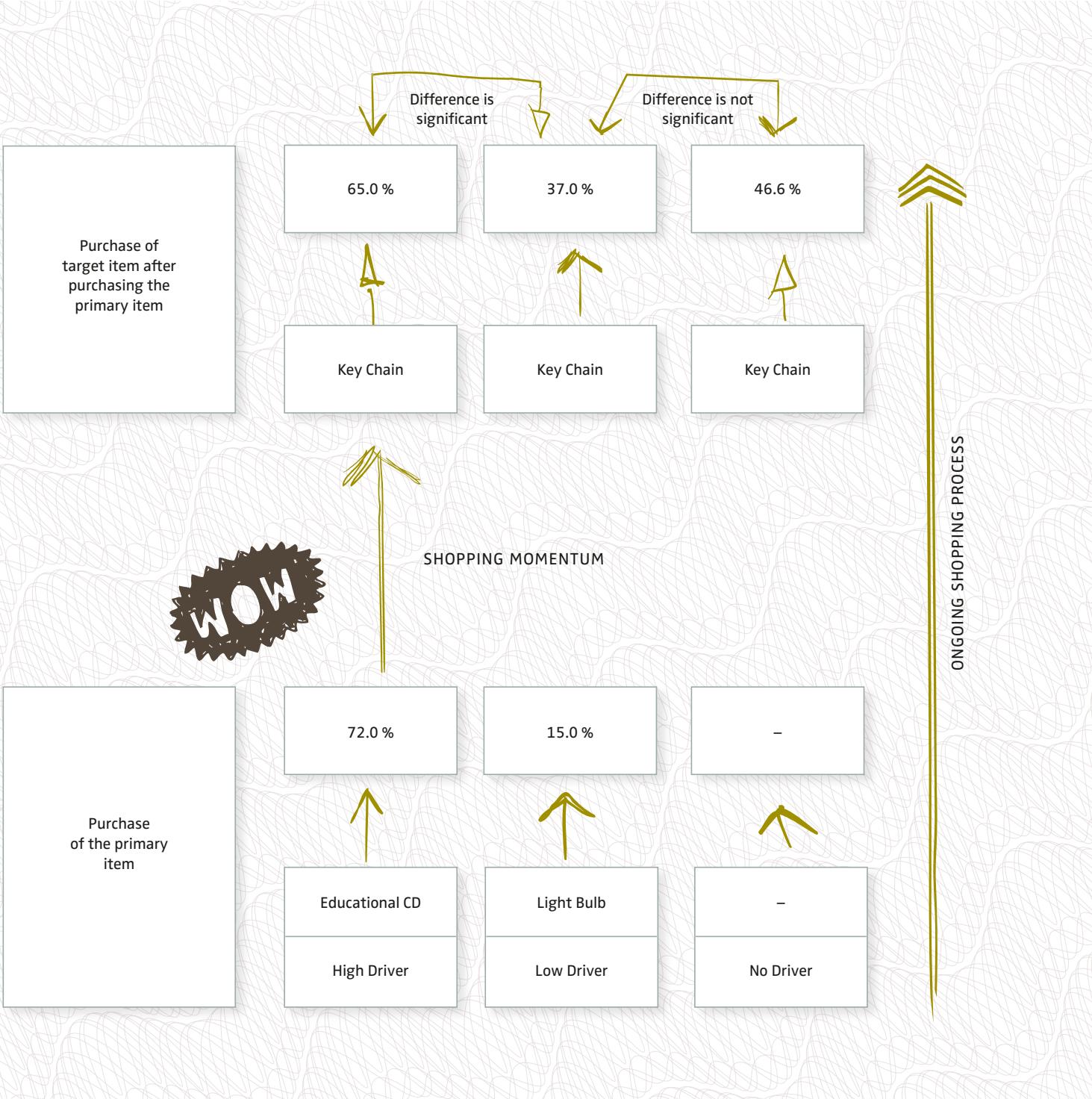
Although these results show that shopping momentum is a real phenomenon, they do not reveal what drives it. Is it the attractiveness of the item, or the act of making a purchase?

If it is truly the act of purchasing and not merely a positive effect, the likelihood of buying the target item should be lower when the primary item is given to participants as a free gift than when they have to pay for it. This is exactly what the second experiment showed.

For this purpose, the researchers divided participants into three groups. As before, they were paid to fill out a questionnaire. This time, those in the high driver group were offered a pen for purchase before being offered the key chain at half the price of the pen. The low driver group was offered the pen as a free gift before being offered the key chain at the same price as the first group. In the control condition, only the target key chain was offered for purchase.

The results of this study clearly confirm the prediction that shopping momentum is triggered by the act of

Figure 1:
DEMONSTRATION OF THE SHOPPING MOMENTUM EFFECT



» There is no doubt that discounts can increase the likelihood of a primary purchase, but how do such pricing strategies influence subsequent purchases in the light of the shopping momentum effect? «

purchasing itself, as the participants who did not have to pay for the pen were less likely to buy the target item. As figure 2 shows, 62.5 percent of those who were offered the pen purchased it, and 77.5 percent of this group then went on to buy the key chain. However, just 52.5 percent of those who received the pen as a free gift went on to purchase the key chain. There was no significant difference between those who had received the pen as a free gift and the control group in terms of whether they purchased the key chain (*Refer to figure 2*).

How thinking about purchasing changes behavior

It could be argued, of course, that although these experiments show that an initial purchase stimulates further purchases, it does not prove that what underlies this momentum is a shift in mindsets. The researchers therefore devised a further experiment to gain additional insights into the psychological process underlying the postulated shift. They predicted that the mere act of purchasing should induce an implementation mindset (thoughts about when, how and where to act) rather than a deliberation mindset (thinking about the pros and cons of a decision). Consequently, the number of implementation- and deliberation-related thoughts remembered in a recall task was expected to shed more light on the activation of a particular mindset.

Prior to the recall task, the students were paid \$1 to participate in the study and were randomly assigned to two groups: one was given the option of making a purchase and the second, a control group, was not. The first group were told that they could either keep their dollar or spend 25 cents of it on an apple or bag of chips. Both these items had been selected because they had previously been shown to be attractive to students at that

price. In consequence, and consistently with the previous results, 97 percent of those offered the option to purchase a snack, chose to do so.

Both groups were then asked to read through twelve thoughts that a person might have when deciding whether or not to purchase a car, and what they would need to do in order to carry out the purchase after that decision had been made. The thoughts included implementation as well as deliberation thoughts that had been previously revealed in a pretest. After an appropriate delay, the participants were asked to recall as many of the twelve thoughts as they could. The number of each type of thought remembered in this task was expected to shed more light on the activation of a particular mindset.

The results show that those participants who had already made a purchase recalled significantly more implementation thoughts and fewer deliberation thoughts than those who had not. It is therefore clear that the initial purchase changed the mindset of this randomly selected group – those that had already made a purchase developed an implementation mindset, as shown by the thoughts they later recalled.

This experiment confirms that making a purchase leads to a shift in mindset. But for the theory of shopping momentum to be true, this shift should cause further purchases. To test this, the researchers decided to manipulate the type of mindset by asking the participants to engage in an “implementation versus deliberation” thinking style about an unrelated purchase decision before being offered the target item. The researchers expected this to impact the type of mindset without participants actually purchasing a primary item before the target item.

To induce the particular mindset, the participants were randomly assigned to two groups. The first (the deliberation group) was asked to write down four pros and four cons of buying a car. The second (the implementation group) was asked to write down eight steps that they would need to take in order to purchase a car. Both groups were paid for completing this exercise, and were subsequently given the opportunity to purchase a key chain.

The results clearly show the impact of the type of mindset on the propensity to purchase. Whereas 65.8 percent of the implementation group bought the key chain,

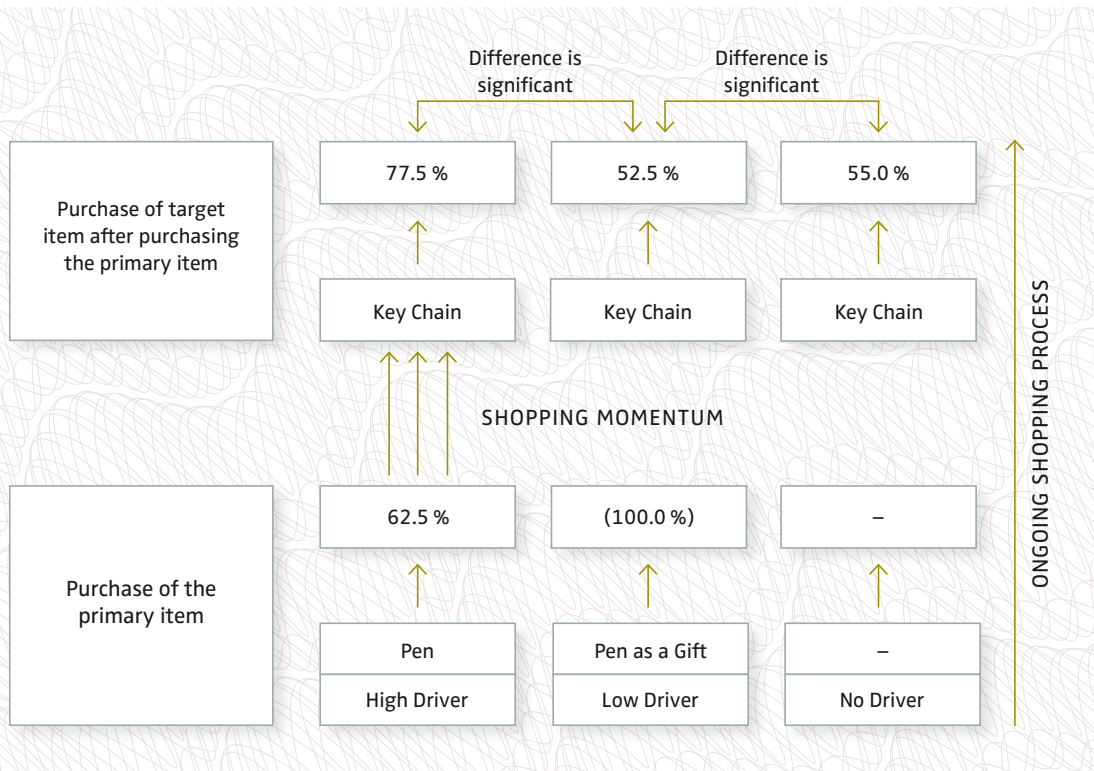


FIGURE 2
The mere act of purchasing drives shopping momentum

only 41 percent of the deliberation group did so. It was not an initial purchase that produced this difference, but merely the development of an implementation mindset as a result of thinking about the steps required to make a purchase.

How shopping momentum can be brought to a halt

To return to the question we posed at the beginning of this article, why do some people keep on shopping while others quickly stop, apparently satiated? The answer is that shopping momentum appears to be a fairly fragile and short-term phenomenon. It should therefore continue only for as long as there is little to disrupt it, and should be brought to a halt as soon as the customer has any cause for deliberation.

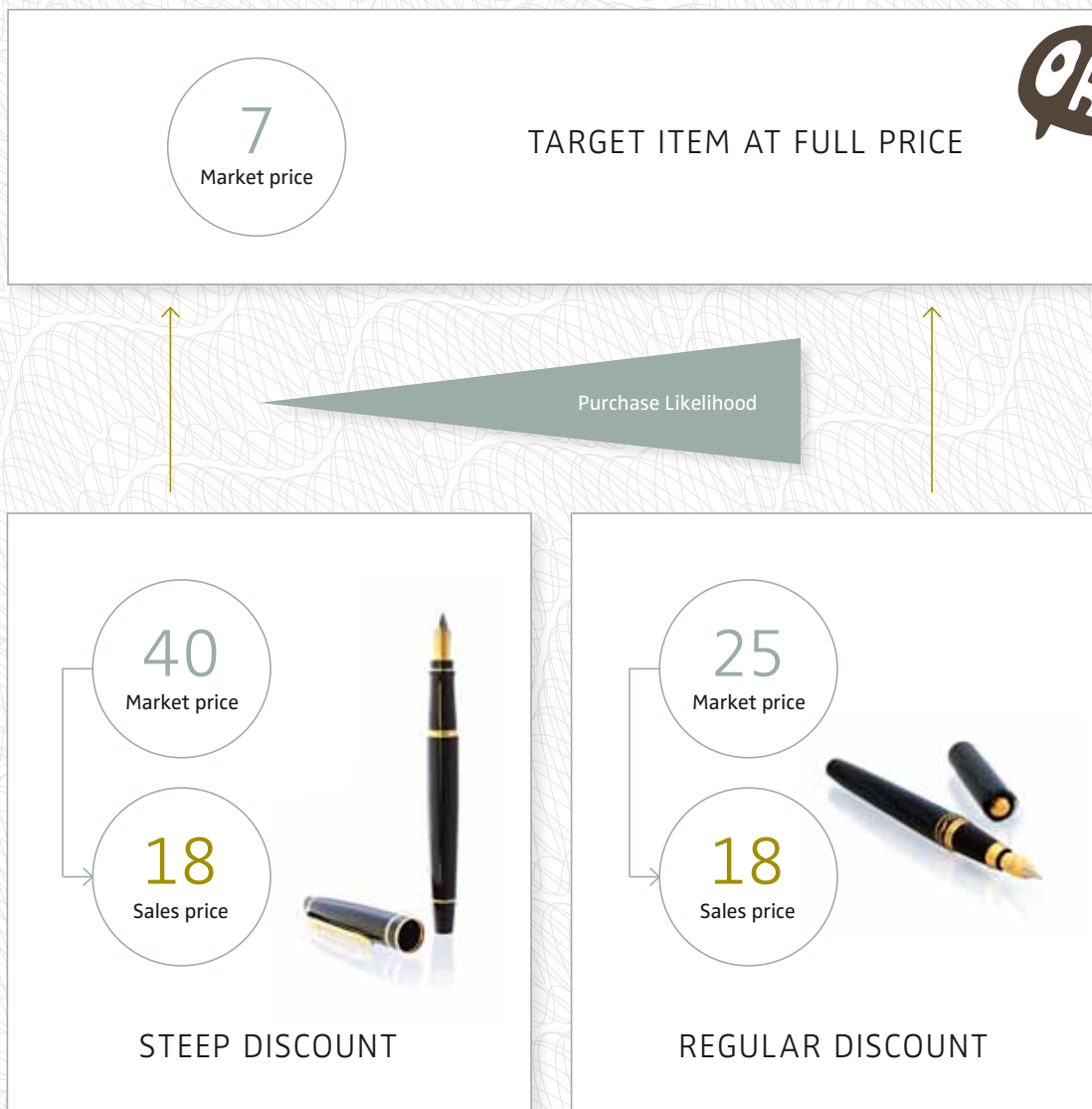
The authors conducted two experiments to identify two boundary conditions of shopping momentum. The results show firstly that if the shopper needs to draw upon a separate source of funds (for example earning money from two different tasks to make a subsequent payment), this will break the momentum. Secondly, if their attention is drawn to an unfavorable price contrast, this can also interrupt the momentum. This latter point is particularly important for marketers.

To illustrate this phenomenon, the researchers conducted an experiment to investigate whether price discounts shift attention back to a deliberation mindset, which should then disrupt shopping momentum; specifically, they compared the effect of a deep discount on shopping momentum to that of a lesser discount. They expected the deep discount to have a counterproductive and contrasting effect on subsequent offers, because these would appear less attractive than the initial one. In other words, prior deep discounts could serve as reference points for consumers when making subsequent purchases, therefore reducing the attractiveness of items offered without such deep discounts.

There is no doubt that discounts can increase the likelihood of a primary purchase, but how do such pricing strategies influence subsequent purchases in the light of the shopping momentum effect?

In the corresponding experiment, two groups were offered a pen at the same price of 18 rupees, the only difference being the supposed initial price. Whereas one group was told that the pen’s market price was 40 rupees (in other words, they were receiving a deep discount), members of the other were informed that the

Figure 3:
STEEP DISCOUNTS ON A PRIMARY ITEM CAN DISRUPT SHOPPING MOMENTUM



market price was 25 rupees, so they were being granted a regular discount. After being offered the primary item, each group was given the opportunity to purchase the key chain. As expected, where participants were offered the pen at a deep discount, fewer went on to purchase the target item than in the case where the discount was lower (see figure 3). The participants apparently discounted the target item at the same rate as the pen, so it appeared to be a less attractive offer at its regular price.

Implications for marketing

Marketers will need to think about how they can use shopping momentum to get the most out of their potential customers. The marketing implications of the research can be summarized as follows:

- > It is only once a customer makes the shift to an implementation mindset that they will carry on shopping relatively unconstrained by concerns about value.
- > Free gifts and other incentives do not in themselves induce shopping momentum; however, they can help to create it, if they are closely linked to a purchase and make it more attractive.
- > Shopping momentum is likely to be a fairly short-term phenomenon that will be brought to a halt as soon as the customer's attention is shifted to deliberation. For instance, steep discounts can affect the attractiveness of subsequent offers because focusing on financial resources leads to a deliberation mindset and interrupts the momentum.

The work of Ravi Dhar, Joel Uber and Uzma Khan therefore has important implications. Many a marketing strategy is likely to be reshaped as a result of their insights into what causes some shoppers to just keep on shopping. •

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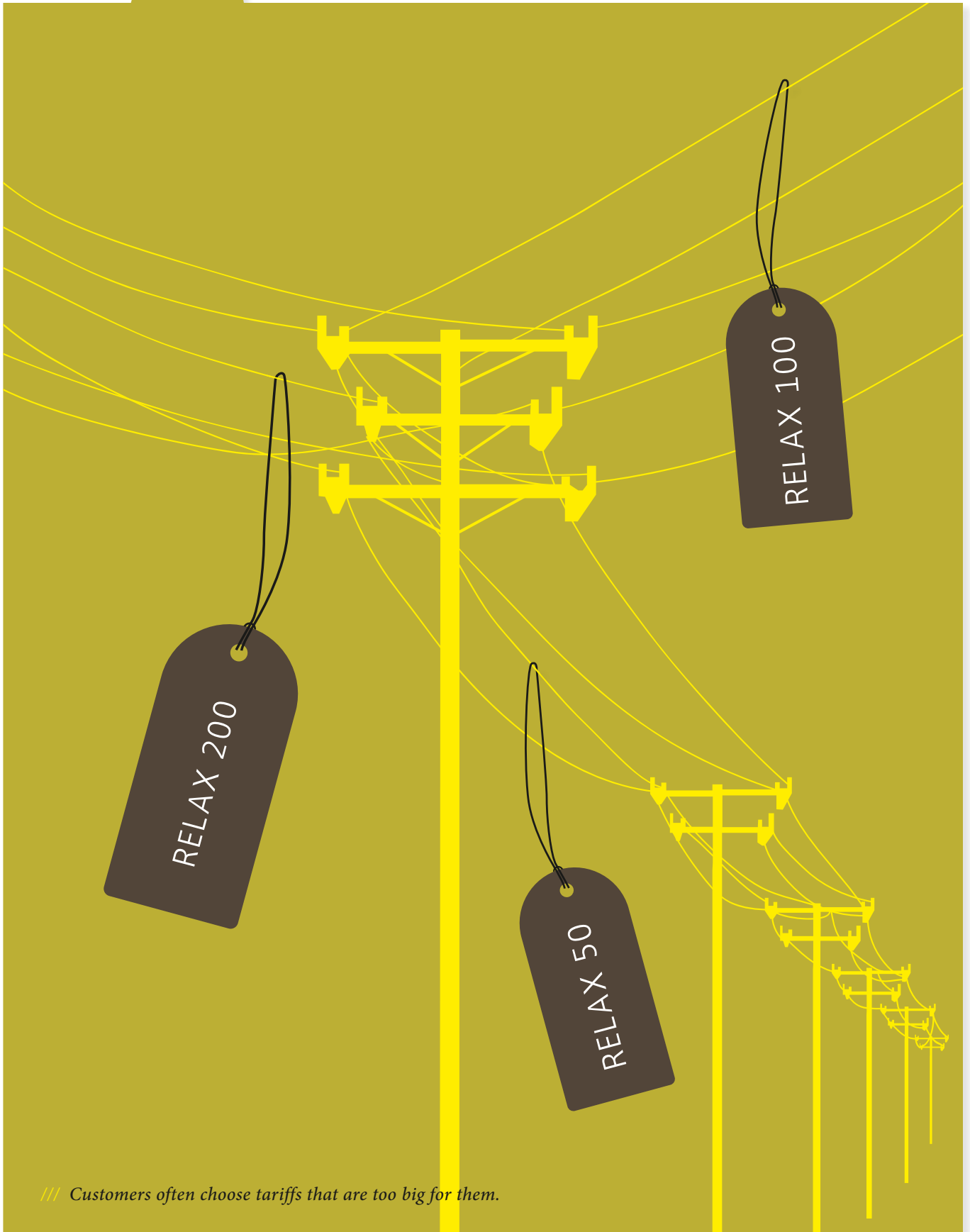
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{New Strategies}



/// Customers often choose tariffs that are too big for them.

MANAGING YOUR CUSTOMER'S TARIFF CHOICE: WHAT TO DO WHEN YOUR CUSTOMERS PAY TOO MUCH

Anja Lambrecht and Bernd Skiera

Telecommunications companies traditionally offer several tariffs from which their customers can choose the tariff that best suits their preferences. Yet, customers sometimes make choices that are not optimal for them because they do not minimize their bill for a certain usage amount. We show in this paper that companies should be very concerned about choices in which customers pick tariffs that are too small for them because they lead to a significant increase in customers churn. In contrast, this is not the case if customers choose tariffs that are too big for them. The reason is that in particular flat-rates provide customers with the additional benefit that they guarantee a constant bill amount that consumption can be enjoyed more freely because all costs are already accounted for.

Telecommunications companies traditionally offer tariffs that charge a fixed monthly fee and a price for each quantity unit that is consumed. Such strategies have become increasingly prevalent in many industries; pay TV companies, for example, offer different packages for different selections of channels, but charge an additional fee for special broadcasts such as live football games. The German national railway company, Deutsche Bahn, offers a fixed-price BahnCard that entitles the passenger to travel at a discount price for a year, and health clubs and recreation centers use similar pricing structures. Frequently, such companies offer more than one tariff to achieve better market segmentation. Deutsche Bahn, for example, offers BahnCard 25, BahnCard 50, and BahnCard 100 at yearly prices of € 55, € 220 and € 3,500 for second-class travel. The first two tariffs allow 25 and 50 percent discounts on standard fares, while BahnCard 100 allows free unlimited travel on the whole network.

Similarly, T-Mobile offers Relax 50, 100, 200 and 1000 tariffs, allowing customers to make 50, 100, 200 and 1,000 minutes of calls a month for € 10, € 20, € 30 and € 60 respectively.

Offering more tariff choices allows customers to pick those that best fit their individual preferences, but may also lead them to choose less than optimal tariffs that do not minimize their bill for a certain usage amount. For example, a customer may pick T-Mobile's Relax 1000 tariff, but regularly make less than 200 minutes of calls per month. As a consequence, they will end up with a monthly bill of € 60 when they could just as well use the Relax 200 tariff at half the price.

Such a mistake is known as flat-rate bias, because the customer picks a tariff that offers too many free minutes and pays too high a fixed fee. Put differently, the tariff is too "big" for him. In many instances, the "biggest" tariff a customer can choose would be the flat rate; hence the term "flat-rate bias".

Alternatively, another customer may pick T-Mobile's Relax 50 tariff, but frequently use 100 minutes per month. She would end up paying € 25 per month (€ 10 plus roughly € 0.30 for each of the additional 50 minutes), but could have saved € 5 per month by choosing the Relax 100 tariff at € 20 per month. Such a mistake is dubbed a "pay-per-use bias", because the customer has chosen a tariff that is too "small". The "smallest" tariff a customer can choose is often a pure pay-per-use one with no fixed fee.

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The article is adapted with permission from the Journal of Marketing Research published by the American Marketing Association: *Lambrecht, A. and Skiera, B. (2006), "Paying Too Much and Being Happy About It: Existence, Causes and Consequences of Tariff-Choice Biases", Vol. XLIII (May 2006), 212-23.*

The crucial question for companies is whether these mistakes are beneficial. They allow them to charge higher bills and boost their short-term profitability, but customers may be upset when they recognize that they have paid more than if they had made a better tariff choice. In the best case, an upset customer will simply switch to the appropriate tariff. In the worst case, however, customers are so frustrated that they take their business elsewhere, in which case the boost in the company's short-term profitability substantially harms its long-term returns. We therefore wanted to explore the effects of such biases on profitability to better understand how managers should manage their customers' tariff choices.

Customers often do not choose wisely

Train / McFadden / Ben-Akiva (1987) observe that US households have a general preference for flat rates compared to standard measured service, and prefer flat rates for a more extended area to flat rates for a smaller area. Hobson / Spady (1988) report "a fair number of apparent 'mistakes'" when analyzing single-person household tariff choice, which for the most part involved choosing flat-rate service when the monthly billing rate under local measured service would have been lower.

Similar results are reported from an AT&T experiment where customers with zero consumption chose a block-of-time tariff instead of a standard usage-based rate (Mitchell / Vogelsang 1991). Also, 45 percent of the customers that pay a fixed monthly rate for a percentage discount on evening and weekend calls, use fewer

than the break-even volume required to have a lower bill than under standard measured service. Kridel / Lehman / Weisman (1993) find that of the 93 percent of customers having selected flat rates, nearly 65 percent would save money had they purchased local measured service, whereas of the 7 percent that selected local measured service only 10 percent would benefit from switching to the flat rate.

Based on health club usage data, Malmendier / DellaVigna (2006) observe that customers choose annual contracts, even though they would pay less per visit and thus forgo an average savings of \$700 during their membership. This means they pay 70 percent more than they would have done on a per-visit basis.

All these studies indicate that flat-rate bias is much more prominent than pay-per-use bias. Only Miravete (2002) finds that 6–12 percent of customers wrongly choose the flat rate but 62–67 percent wrongly choose measured service.

What should you do if customers do not always choose wisely?

We wanted to know what managers should do when customers make the wrong decisions. Should they tell them, or just take the extra money? We therefore had to understand the extent of these mistakes, their causes and, most importantly, their effects on customer switching, churn, and long-term profitability.

We collected a unique set of transactional data for a representative sample of 10,882 customers of a European internet service provider (ISP), covering a sample period of up to 5 months, which could be matched to the results of a survey of 941 of the ISP's customers. This allowed us to carry out a detailed analysis of tariff choices. There was a choice of three DSL tariffs:

» Companies do not need to be concerned about customers with a flat-rate bias, though they should be worried about those with a pay-per-use bias, because the increase in short-term profitability is completely offset by the substantial increase in churn rates. «

- > Tariff 1 had a fixed fee and a low monthly allowance, with an additional charge per megabyte of data over and above the allowance.
- > Tariff 2 had a higher fixed fee and a higher allowance than tariff 1, but the same charge for usage exceeding the allowance.
- > Tariff 3 was subject to a flat rate with unlimited usage.

Because of the low allowance, tariff 1 closely resembles a pay-per use tariff.

Do flat-rate bias and pay-per-use bias really exist?

First, we analyzed whether the 10,882 customers picked tariffs that with hindsight were more expensive than others. We calculated how much they actually paid, and how much they would have paid for the same usage volume on alternative tariffs. We examined their actual and potential bill amounts over (i) several billing periods and (ii) every single billing period to see if they were (i) wrong overall or (ii) always wrong. "Wrong" here means that they chose a tariff that turned out to be more

expensive for them than another one. The results, shown in table 1, confirm that there was a flat-rate bias and, to a lesser extent, a pay-per-use bias. When the results were analyzed over a five-month period they showed that the flat-rate bias persisted over time, whereas the pay-per-use bias seldom did.

In this analysis, more than half the customers with a flat-rate bias paid at least 100 percent more than they would have done on the least costly tariff. More than half of those with a pay-per-use bias paid at least 20 percent more than the least costly tariff. This confirms that most customers who picked the wrong tariff did not

TABLE 1 :
Existence of tariff-choice biases – Why do customers make "wrong" choices?

CRITERION 1: "OVERALL WRONG"

CRITERION 2: "ALWAYS WRONG"

3 Months

		Best Tariff		
		Tariff 1	Tariff 2	Flat Rate
Chosen Tariff	Tariff 1	93.7 %	5.3 %	1.0 %
	Tariff 2	48.1 %	43.4 %	8.5 %
	Flat Rate	19.8 %	8.4 %	71.8 %

N = 10,882

3 Months

		Best Tariff		
		Tariff 1	Tariff 2	Flat Rate
Chosen Tariff	Tariff 1	98.7 %	1.2 %	0.1 %
	Tariff 2	37.6 %	61.1 %	1.3 %
	Flat Rate	17.6 %	7.8 %	74.8 %

N = 10,882

5 Months

		Best Tariff		
		Tariff 1	Tariff 2	Flat Rate
Chosen Tariff	Tariff 1	94.5 %	4.7 %	0.8 %
	Tariff 2	46.4 %	47.8 %	5.8 %
	Flat Rate	14.3 %	12.0 %	73.7 %

N = 7,559

5 Months

		Best Tariff		
		Tariff 1	Tariff 2	Flat Rate
Chosen Tariff	Tariff 1	99.6 %	0.4 %	0.0 %
	Tariff 2	29.3 %	70.4 %	0.3 %
	Flat Rate	10.5 %	10.5 %	79.0 %

N = 7,559

Table 2:
INCREASE IN TARIFF SWITCHING AND CHURN PROBABILITIES

		CRITERION 1: "OVERALL WRONG"					CRITERION 2: "ALWAYS WRONG"					
		Best Tariff			Significance		Best Tariff			Significance		
		Tariff 1	Tariff 2	Flat Rate	FRB	PPUB	Tariff 1	Tariff 2	Flat Rate	FRB	PPUB	
Tariff switching	Chosen Tariff	Tariff 1		+220 %	+240 %						***	
		Tariff 2	+150 %		+250 %	-	-	+67 %		-100 %	-	-
		Flat Rate	0 %	1 % ¹		-	-	0 %	1.1 % ¹		*	
Churn	Chosen Tariff	Tariff 1		+340 %	+1040 %						***	
		Tariff 2	-25 %		+538 %	-	***	-50 %		+492 %	**	***
		Flat Rate	+63 %	+25 %		-	-	+67 %	-100 %		-	

*** Difference is significant at 0.01

** Difference is significant at 0.05

* Difference is significant at 0.1

- Not significant at 0.1

1) Tariff switching rates or flat-rate customers for whom flat rate is least costly tariff are zero, therefore actual tariff-switching rates are listed

N = 10,882

just deviate slightly from the least costly tariff. We were able to confirm this result in additional laboratory studies (Refer to table 1).

Our additional analysis of the survey results showed that these wrong choices have three distinct causes:

- > The “insurance effect”, where customers choose a flat-rate tariff because they want to avoid any variation in their monthly bills. This would be the case on a pay-per-use tariff if their usage varied over time. Hence, the flat-rate option represents an insurance against periods when customers might use the service more than they usually do.
- > The “taxi-meter effect”, which indicates that customers enjoy their usage more when paying a flat rate than with a pay-per-use tariff. The theory of mental accounting assumes that the cost of purchasing an item leads to an immediate pain of paying which can undermine the pleasure derived from its consumption (Prelec / Loewenstein 1998). Paying per use lessens the pleasure of consumption, as the cost, and thus the pain of paying, are attributed to the consumption at the time of usage. Basically, this theory says that a taxi ride is more enjoyable if the ride is prepaid because the ticking of the taxi meter no longer reduces the pleasure of the journey.
- > The “overestimation effect”, in which customers overestimate their need for the service and consequently pick a flat-rate rather than a pay-per use tariff.

All three reasons are important in explaining why customers have flat-rate biases. Interestingly, only the overestimation effect is driven by a cognitive error on the customer’s part, whereas the insurance and taxi-meter effects indicate that customers derive additional utility from a flat-rate tariff. Additional laboratory studies confirmed our results.

The less frequent pay-per-use bias was driven by customers underestimating their own usage – in other words, it was a cognitive error.

What are the consequences of those “wrong” choices?

So what does this mean in terms of long-term profitability? If customers simply ignore their wrong choices and the fact that they are throwing money away, companies could easily use this to increase their revenue and profit.

» If customers simply ignore their wrong choices and the fact that they are throwing money away, companies could easily use this to increase their revenue and profit. «

On the flip side, customers may realize they are paying too much, become dissatisfied, and simply walk away. We therefore calculated tariff-switching and churn probabilities for the different tariffs.

Table 2 shows the differences in these two probabilities between customers with and without tariff-choice biases. For example, the tariff-switching probability of customers on tariff 1 with a pay-per-use bias who consistently made wrong tariff choices (labeled “criterion 1”) was 220 percent higher than that of customers for whom tariff 1 was the least costly. For customers that would pay the least on the flat rate, the tariff-switching probability was 240 percent higher. The corresponding differences in tariff switching were substantially smaller for customers on the other tariffs. Thus, both biases led to a higher tariff-switching probability, though this was more likely for customers with a pay-per-use bias than for those with a flat-rate bias.

The churn figures point to a different conclusion: customers with flat-rate bias did not have a significantly higher probability of taking their business elsewhere. In contrast, the monthly churn rates for customers with pay-per-use bias were 340 to 1,040 percent higher than those of customers that had chosen the least costly tariff. The pay-per-use bias, but not the flat-rate bias, increases customer churn. When deciding whether to switch or go elsewhere, customers with a flat-rate bias tend to switch to another tariff with the same provider, whereas customers with a pay-per-use bias tend to leave (Refer to table 2).



» Customers with a flat-rate bias are not unhappy about paying more than they would have done under the least costly tariff. «

Next, we analyzed the long-term impact on profits by calculating customer lifetime values in a customer migration model. We assumed that those with tariff-choice biases could choose between keeping the tariff, switching to the least costly tariff, or going elsewhere, and we used the observed switching and churn rates as the probabilities of moving from one state to another. We discounted future profits by 10 percent and compared the lifetime value of customers with tariff-choice biases to their lifetime value if they had chosen the least costly tariff from the beginning.

The results show that, in the short term, profitability is higher for customers with pay-per-use bias than for those with flat-rate bias. However, in the long term the lifetime value of customers with flat-rate bias is substantially higher than that of customers with a pay-

per-use bias. This is a result of the higher switching rates, and in particular the higher churn rates, of customers with pay-per-use bias.

What are the implications of our results?

Our results indicate that customers with a flat-rate bias are not unhappy about paying more than they would have done under the least costly tariff. This remarkable outcome is driven by the particular characteristic of flat-rate tariffs: they guarantee that the bill amount is constant and customers can more freely enjoy their consumption because all costs are already accounted for. While some customers with a flat-rate bias also suffer from an overestimation effect, this cognitive error is not so large as substantially to increase churn rates.

Consequently, companies do not need to be concerned about customers with a flat-rate bias, though they should be worried about those with a pay-per-use bias, because the increase in short-term profitability is completely offset by the substantial increase in churn rates. We therefore recommend that companies inform these customers of their apparent mistake in picking the wrong tariff, which is driven by an underestimation of usage. This strategy should allow them to lower their churn rate.

All in all, customers seem to have a general preference for flat rates, which is in line with the results of other studies. Prelec/Loewenstein (1998), for example, analyzed several products and services (such as public transportation, food during a cruise, health clubs and long-distance phone calls), asking customers whether they preferred flat rates, payment per use or neither. They found that on average 52 percent preferred the flat rate whereas only 28 percent preferred payment per use.

We believe that the results of our analyses are valid across a range of products and services, such as cell-phones and fixed-line services, access to wireless local area networks, car rental and public transportation. For services where customers pre-commit to a certain amount of usage, such as exercising twice a week in a health club, pre-commitment may also affect tariff choice. Pre-commitment is likely to occur when customers need to make a considerable short-term investment, for example in terms of physical effort, and receive long-term benefits such as better health. So instead of looking for the minimum billing rate for a given usage,

these customers intend to force themselves to follow a certain type of behavior. This attitude results in a strong flat-rate bias.

A key message from our analyses is that companies should carefully consider any pricing decisions that may affect flat-rate customers, such as withdrawing the flat-rate option. They should encourage them to take up this option by emphasizing the benefits, such as the pleasure and independence that a flat rate brings (the taxi-meter effect), or the reliability of the billing rate (the insurance effect). In addition, companies also have an incentive to increase customers' perceptions of usage intensity (the overestimation effect) by highlighting the different ways in which they could use the product or service.

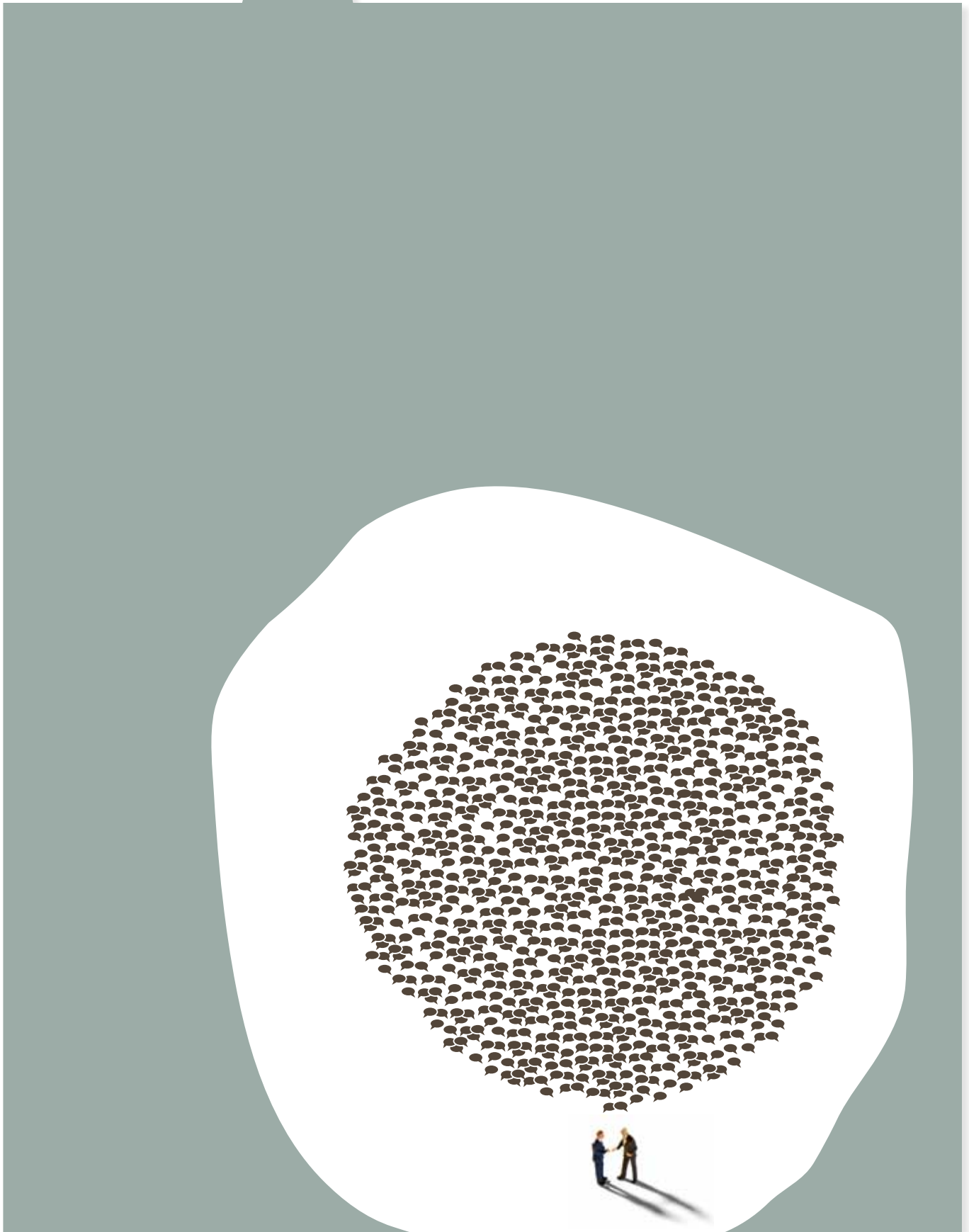
Flat-rate tariffs may present a risk if the company serves a significant segment of extremely heavy users. To avoid dramatic increases in costs, many businesses have introduced a fair use policy that caps usage at a level which exceeds that of the average user but makes the offering substantially less attractive for heavy users.

Importantly, a company will not only reduce its profits when customers suffer from pay-per-use bias, but will also be in danger of negatively affecting its reputation. Customers who realize they have chosen the wrong tariff may blame the company rather than themselves for paying too much. In addition, the high churn rates of pay-per-use customers may adversely affect the company's reputation. Therefore, businesses should steer new customers towards the flat-rate option or tariffs with high usage allowances and suggest that existing customers with a pay-per-use bias switch to a tariff with a higher fixed fee and usage allowance. •

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{ *New Methods* }



HOW COMPANIES CAN MEASURE THE SUCCESS OF THEIR RELATIONSHIP MARKETING INVESTMENTS

Robert Palmatier, Srinath Gopalakrishna and Mark Houston

Firms invest heavily in different types of business-to-business relationship marketing in the belief that it bolsters their bottom line. How effective is this investment, and how can companies measure its success? This study analyzes the various aspects of business-to-business relationship marketing. Data from a matched set of 313 business customers covered by 143 salespeople employed by 34 selling firms indicates that investments in social relationship marketing pay off handsomely, financial relationship marketing does not, and structural relationship marketing is economically viable for customers serviced frequently.

The authors view relationship marketing in a context involving relevant participants (customers, salespeople and selling firms). Across the three hierarchical levels, the impact of the financial, social and structural components of relationship marketing investments, and the potential moderating factors, offer valuable insights into contextual factors and managerial strategies for leveraging these investments. The analysis is extended to a resource allocation model that describes the optimal mix of relationship marketing resources based on firm strategies.

Relationship marketing: the path to success or failure?

Relationship marketing has undergone explosive growth during the last decade, due to the widespread belief that it leads to improved financial performance. However, empirical evidence on this topic is mixed, and more

research is needed to isolate the conditions where relationship marketing is effective. So far, no studies have documented the returns from specific B2B investments in relationship marketing programs, or explained how to leverage these investments for specific customers.

Two aspects complicate any investigation of the customer-specific payoffs of relationship marketing. The first is the fact that different relationship marketing programs (financial, social, and structural) may build different types of relational bonds and norms that generate varying levels of return. This observation implies that investment returns may vary by program, and must be isolated to unravel the distinct effects that are masked within an aggregate measure.

The second aspect is that the returns from such programs may vary according to factors associated with any of the relational participants (customer, salesperson, selling firm), but the factors for each participant influence a different set of relational bonds. Customer factors affect returns from relationship marketing investments only for that customer, whereas salesperson factors influence the efficacy of relationship investments for all customers handled by that salesperson, and selling-firm factors leverage investments across all the customers of a selling firm. This suggests that each participant's perspective should be considered when investigating the factors and strategies that may leverage the effect of relationship marketing investment on returns.

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This study examines the customer-specific return (CSR) – a marginal return on investment – of relationship marketing efforts in a business-to-business (B2B) context within three nested levels of data: 313 customers served by 143 salespeople from 34 selling firms. The relationship marketing efforts are categorized into three components: financial, social and structural. Each component is examined to assess how it can generate distinctive customer bonds and norms, and whether the program will eventually pay off. Furthermore, customer, salesperson, and selling-firm factors that may leverage the payoffs are analyzed. Finally, using a resource allocation model, guidance is provided on spending levels for each type of program, contingent on salesperson and selling-firm factors.

» Because relationship marketing programs operate through different relational mechanisms, each program must be evaluated separately in order to determine whether a proposed moderator alters a customer's relational motivation or perceived value. «

The influence of relationship marketing investments on CSR

Studies in B2B and consumer markets show that relationship marketing efforts affect a customer's value to the firm by increasing the length, breadth and depth of the buying relationship and generating positive word of mouth. Different relationship marketing activities may also generate distinctive customer bonds and relational norms, affect the relationship unevenly and thereby vary in terms of economic returns. Relationship marketing efforts must therefore be broken down into components prior to any evaluation of customer-specific economic returns.

Relationship marketing investments

Although diverse typologies and criteria exist to describe relationship marketing efforts, most include financial, social and structural components and suggest that customer-seller linkages are similar within each category, but vary with regard to their effectiveness across the categories.

> **Financial relationship marketing programs** include discounts, free products, and other monetary benefits that reward customer loyalty. However, if these programs are not enabled by unique sources, any advantage accruing from such marketing is unsustainable as competitors can easily match any special offers. Moreover, such incentives tend to attract deal-prone customers who are less profitable to serve. Nevertheless, in certain situations, financial programs can provide sufficient returns.

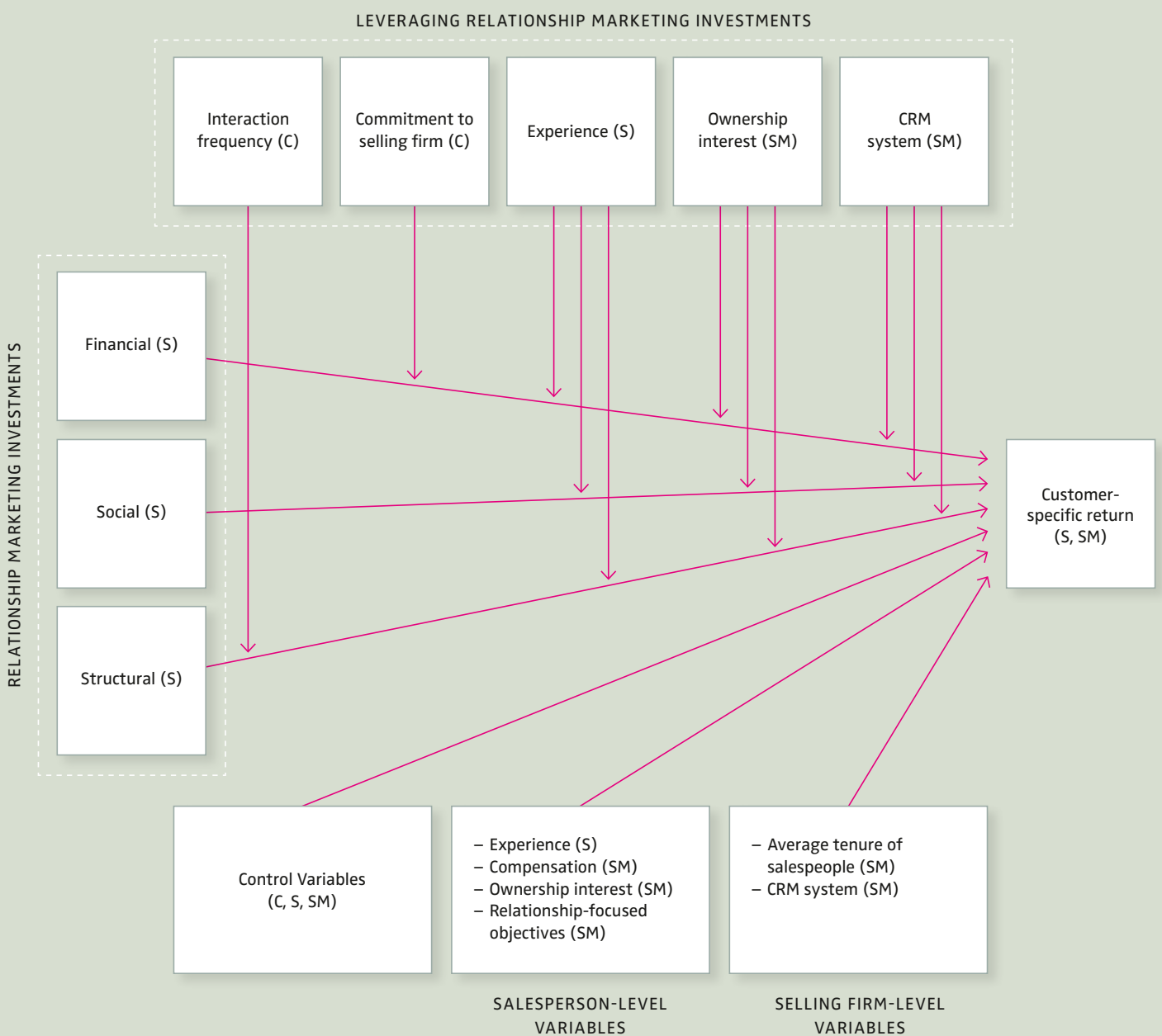
> **Social relationship marketing programs** include meals, special treatment, entertainment and personalized information. The social bonds which result from these are difficult to duplicate and may lead customers to reciprocate via repeat sales and recommendations and to ignore competitive offers. These programs are believed to have a strong impact on relationships.

> **Structural relationship marketing programs** increase productivity and/or efficiency for customers through investments that they would not make themselves. Examples include customized order processing systems, dedicated personnel, and tailored packaging. These programs typically require considerable setup efforts and offer unique benefits, so that customers may be reluctant to use other suppliers. The bond between buyer and seller is very strong, and may also generate competitive advantages, because the buyer directs more business towards the seller in order to take full advantage of the benefits.

In general, although the three types of program may vary in their scope and effects, all are expected to have a positive impact on customer-specific returns (*Refer to figure 1*).

Apart from these programs, other factors may influence CSR. Typical B2B customers interact with salespeople and the selling firm; thus customer, salesperson and selling-firm factors could all affect exchange performance. There are two types of customer-related factors: relational (emotional or behavioral) ones, and those related to the customer's specific characteristics. A positive emotional attitude towards the selling firm may induce a commitment caused by the desire to maintain a valued relationship. The key behavioral factors in this context are interaction frequency and relationship duration. Turning to customer characteristics, a customer's sales growth can lead to an increase in the selling firm's sales. Other customer characteristics that may affect

Figure 1:
EFFECTS OF RELATIONSHIP MARKETING INVESTMENTS
ON CUSTOMER-SPECIFIC RETURN



Notes:

Reported by customer; S: Reported by salesperson; SM: Reported by sales manager, Customer relationship marketing (CRM), customer-specific return (CSR)

profit are captured within a salesperson's perception of the customer's potential or attractiveness.

As far as the salesperson is concerned, ability and motivation are both important to sales and profit outcomes. Experienced salespeople are better at identifying and closing sales opportunities, and adapt more easily to change. The better their compensation, the more satisfied and motivated they are, which in turn affects the amount of effort they put in to the job. The harder they work, the greater the company's sales and profits should be. If they are given ownership interests, such as profit sharing and stock ownership plans, this is likely to increase their awareness of the way in which their actions affect the company's profit.

Selling-firm factors include direct and indirect efforts to build and maintain profitable customer relationships. One indirect effort is to maximize the average tenure of salespeople at the firm, because it results in stronger customer relationships, fewer customer defections and more customer-specific knowledge. One example of a direct effort is the use of customer relationship management (CRM) – a strategic approach used to create shareholder value by developing relationships with key cus-

tomers and customer segments through the use of data and of information technology. In addition, CRM supports relationship marketing by helping firms to target their efforts more effectively, thereby increasing customer-specific profits. Finally, other selling-firm factors include advertising expenditure and the size of the firm.

What factors leverage relationship marketing investments?

The drivers and variables which may leverage relationship marketing investments across the three exchange participants (customer, salesperson, and selling firm) are summarized in *table 1*. We will distinguish between customer-level, salesperson-level and selling-firm-level moderators.

Customer-level moderators

Two theoretical drivers may leverage the impact of relationship marketing investments: the customer's motivation to have a relationship, and the willingness to reciprocate the seller's investments. A higher return on investment may ensue from customers who desire a relationship and who reward sellers for their relationship-building efforts. Cost savings and tangible benefits from a relationship affect a customer's loyalty. However,

TABLE 1:
Customer, salesperson,
and selling-firm variables
which leverage the influence
of relationship marketing
investments on customer-
specific return

Perspectives	Theoretical driver(s) for leveraging relationship marketing Investments	Potential leveraging variables	Variables tested
Customer	Factors influencing customer's motivation to have a strong customer-seller relationship (Dwyer et al. 1987; Morgan and Hunt 1994)	Interaction frequency, customer dependence, product involvement, environmental uncertainty, relationship proneness (individual difference variable), and customer's processes for rewarding strong supplier relationships	Interaction frequency
	Factors influencing customers' willingness to reciprocate for benefits received (Cialdini 2001; De Wulf et al. 2001)	Customer commitment, possibility of future interaction, customer stake (i.e., investment) in the relationship, individual difference for reciprocity, and customer firm's norms	Customer commitment
Salesperson	Factors influencing a salesperson's ability to allocate relationship marketing investments efficiently (Weitz et al. 1986)	Experience, adaptive selling skills, and interpersonal skills	Experience
	Factors influencing salesperson's motivation to allocate relationship marketing investments efficiently (Bergen et al. 1992)	Ownership interest, sales management attention and supervision of relationship marketing expenditures	Ownership interest
Selling firm	Factors influencing a selling firm's employees' ability to allocate relationship marketing investments efficiently (Mithas et al. 2005; Reinartz et al. 2004)	Selling firm's CRM, customer segmentation processes, management and tracking processes for relationship marketing investments, and employee recruiting, training and incentive programs	Customer relationship management
	Factors influencing a selling firm's employees' motivation to allocate relationship marketing investments efficiently (Boulding et al. 2005; Deshpande et al. 1993)	Selling firm's CRM, market orientation or customer centric culture, and organizational climate	Customer relationship management

if relationship marketing introduces inefficiencies like added costs or unwanted social interactions, they may cause resentment.

Customer motivation

Many factors can increase a customer's need or motivation for stronger relational linkages, including customer dependence, interaction frequency, product involvement and environmental uncertainty. Because relationship marketing programs operate through different relational mechanisms, each program must be evaluated separately, in order to determine whether a proposed moderator alters a customer's relational motivation or perceived value. Interaction frequency, for example, has been noted as a way to increase the value of structural relationship marketing for a customer.

As structural programs can increase customer productivity and/or efficiency through a customized interface, more frequent interactions lead to increases in perceived value as customers gain greater productivity during more interactions. The cost to seller and buyer of implementing a structural program is typically fixed, so that after the interface is set up, the additional cost of maintaining the program is minimal. Consequently, customer value increases with interaction frequency, resulting in stronger bonds, enhanced loyalty, and more business to the selling firm.

However, social and financial programs do not have the same effects. In the case of social programs, when a strong relationship has been built, there is little additional value for the customer from more interactions, and the cost to the buyer and seller of maintaining a social bond is more variable. Thus, customers do not perceive higher value from social programs as the frequency of interaction increases. Similarly, this frequency will not affect the value of a financial program as it depends chiefly on economic savings.

Customer's willingness to reciprocate

The second theoretical driver, the customer's willingness to reciprocate, indicates that relationship marketing will have a greater effect on profit when invested in customers who are willing to reciprocate the value they receive. For example, if a buyer expects to interact with the seller in the future or has a stake in maintaining the exchange, he or she should behave less opportunistically. Efforts towards customers who are committed to maintaining the relationship should generate higher returns because

of their likelihood of reciprocating with increased sales or a willingness to pay a price premium. This effect is most likely to occur with programs that require little investment by the customer, in terms of cost, time or effort, to extract value, because such programs offer little protection from opportunism. As social and structural programs require more time and effort to develop than financial ones, a customer's commitment to the selling firm is likely to moderate the profit impact of financial relationship marketing investments.

Salesperson-level and selling-firm-level moderators

At the salesperson and selling-firm levels, a number of variables may influence decision makers' ability and motivation to allocate relationship marketing investments efficiently. For example, experienced salespeople should be effective at choosing and delivering targeted programs to select customers. Relationship marketing should therefore have a greater impact on performance for experienced salespeople.

The ownership effect also plays a critical role in this context, as it motivates salespeople to act in the best interests of the firm. If their earnings are linked to sales revenue and they have no ownership interest, a misalignment may be created. Such salespeople, who have some discretion in allocating their expenditure, may spend aggressively without worrying about the direct costs of the programs. If they do have an ownership interest, they are likely to be more discerning in targeting their relationship-building resources, and thus to minimize inefficient spending.

At the selling-firm level, variables that influence employees' ability or motivation to spend resources wisely on customers should have a greater impact on their performance. In general, CRM motivates and enables employees to allocate marketing resources efficiently by identifying customers who meet criteria for specific programs, evaluating and improving the effectiveness of these programs, and reducing the time needed to implement them. Thus, firms that use CRM should be able to generate higher levels of profits for a given relationship-building investment than others that do not.

Research method and model

The empirical data used in this study came from industrial customers, salespeople and sales managers of each selling firm. The companies involved were rep firms, which represent several manufacturers as exclusive

sales agents in specific territories. They do not manufacture or stock the product they sell, and their costs do not vary with small changes in sale volumes, except for the salespeople's variable pay. It is therefore relatively easy to assess the economic impact of relationship marketing in this context.

Rep firms offer two additional advantages when it comes to evaluating the return on relationship marketing investments. First, they sell a range of products from multiple manufacturers, so the influence of any product or brand is minimal. Second, they have few tangible assets, which makes their customer relationship their primary asset.

Sample and data collection

The final data set included 313 business customers covered by 143 salespeople of 34 rep firms. The sample comprised firms selling in a wide range of end markets, including electronics, electrical, plumbing, telecommunications, and maintenance supplies. On average, 93 percent of their sales were of products rather than services, and 69 percent came from products or services for which customers had alternative suppliers. The average customer bought 3.8 different supplier lines from the rep firm.

How do you measure relationship investments and returns?

Existing measures were used whenever possible, and all items were tested and refined through interviews with buyers, salespeople, and sales managers. Customers reported their commitment to the selling firm using three items. They also provided single-item measures for the number of interactions per week, the percentage growth rate of the customer firm, and the relationship duration in years.

The salespeople reported their financial, social, and structural relationship marketing investments for each customer. Each salesperson received a list of activities for each program, followed by a question regarding the average monthly spending for this customer over the past year for each activity. This process was repeated for each of the three programs. Finally, salespeople reported the overall sales potential and average commission percentage for each customer, and their experience in years.

Sales managers provided information on the selling firm, the salespeople, and customer sales. For selling firms, they reported the average tenure of salespeople in

years, whether they used CRM, advertising spend, and the size of the selling firm in millions of dollars. For each salesperson, sales managers reported compensation in dollars, whether they had an ownership interest, and whether a relationship-focused objective applied. They also provided two years of archival sales data for each customer, which was used to calculate the returns. The CSR for each customer was calculated by multiplying the sales revenue by the effective commission rate for that customer. Thus, CSR represents the contribution margin a rep firm earns on sales, which remains valid until incremental sales require additional selling costs.

The effects of relationship marketing expenditure are likely to play out over time as customer relationships evolve. In order to capture the effect of prior expenditure, the CSR for the previous period is also included, thereby giving a lagged effect. Secondly, variables are included in addition to relationship marketing expenditures at the three different levels, and the relevant interaction effects are noted.

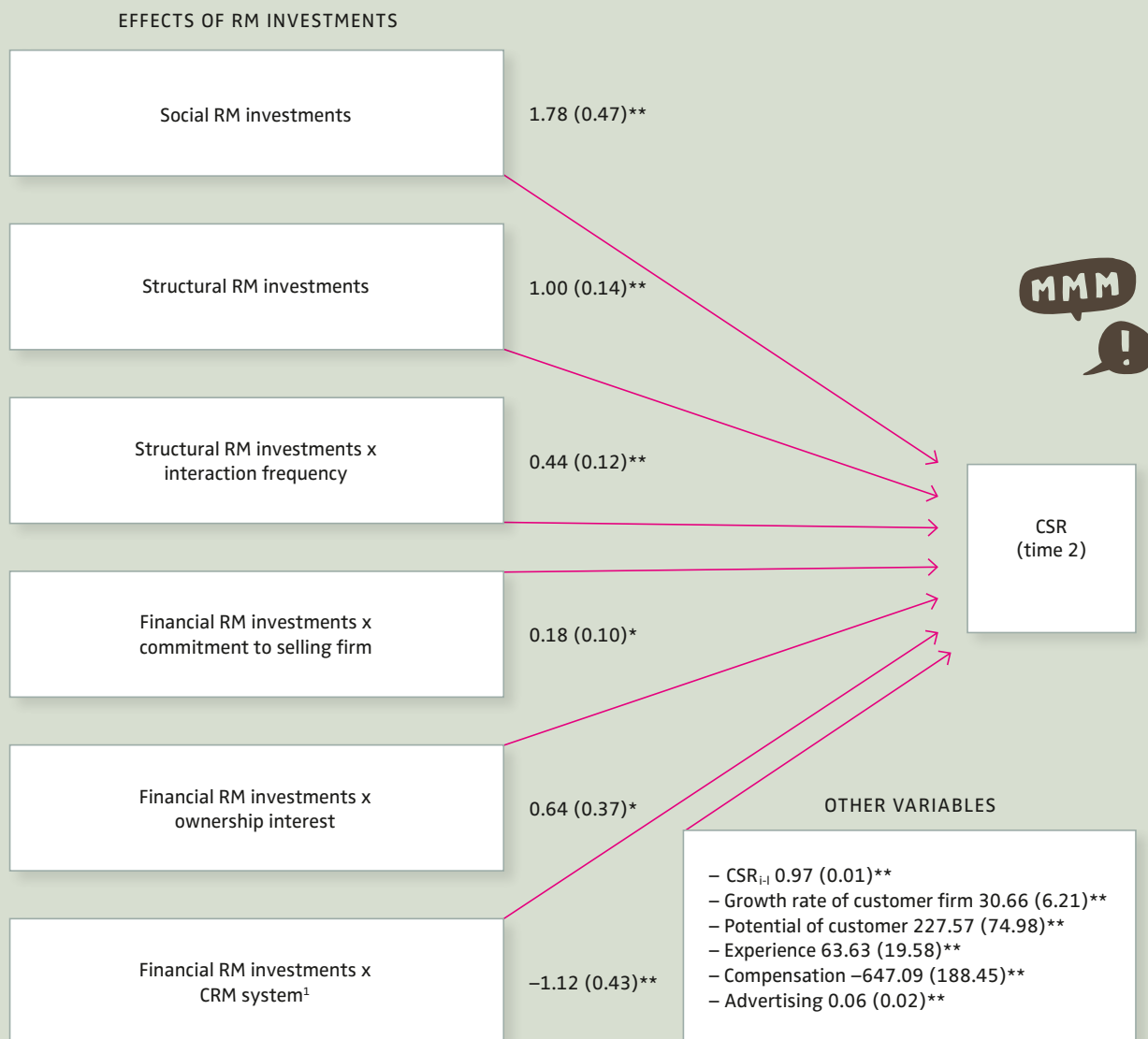
The real productivity of relationship marketing: empirical results

The model demonstrated in *figure 2* offers an insight into the complex effects of relationship marketing on CSR. One advantage of this model is that the parameter estimates for relationship marketing investments can be interpreted as the marginal return for each type of program. In this sample, for instance, a \$ 1,000 additional investment in social relationship marketing generates \$ 1,775 of incremental profit, a 78 percent return, for when other variables in the model are controlled. Because financial and structural programs have significant interactions, the level of the moderators must be accounted for when the results are interpreted.

Investments in structural programs have a positive direct effect on CSR, but generate higher returns for those customers with a high interaction frequency. For example, at two interactions per week, the programs appear to break even, but when customers engage in four interactions per week, a \$ 1,000 investment in structural relationship marketing generates \$ 1,231 of profit, a 23 percent return.

Financial relationship marketing has no significant direct correlation with CSR, although variables at each hierarchical level demonstrate significant interactions with financial relationship marketing, namely commitment to the selling firm, ownership interest and the absence of a

Figure 2:
RESULTS: DIRECT AND INDIRECT EFFECTS OF RELATIONSHIP MARKETING INVESTMENTS ON CUSTOMER SPECIFIC RETURNS



Notes:
Unstandardized parameter estimates (standard error) are shown for each significant effect.
Relationship Marketing (RM), Customer Relationship Management (CRM), customer-specific return (CSR)
1) Negative coefficient represents the effect of not having a CRM system.
* p < 0.05
** p < 0.01

» Social expenditure impacts on profit, and thereby reaffirms the notion that such investments are worthwhile and can translate to goodwill among B2B customers. «

CRM system. For example, even with committed customers, salespeople who have an ownership interest and a selling firm that employs CRM, investing \$ 1,000 in financial relationship marketing produces only a \$ 686 return – in other words, a 31 percent loss.

In addition to the relationship marketing variables, other moderators are included at the three levels. At the customer level, previous-period CSR, customer growth rate and customer potential have significant positive effects on profit. At the salesperson level, experience has a strong positive effect, but salesperson compensation has a significant negative impact on CSR, contrary to the expectations referred to in the second section of the study. Post-hoc discussions with sales managers indicate that the negative impact of total compensation on CSR may be due to highly compensated salespeople reaching a plateau and ceasing to sell aggressively. At the firm level, advertising dollars have a positive impact on profit.

To summarize, the study models the customer-specific payoff for financial, social, and structural relationship marketing investments, provides a theoretical framework of customer, salesperson, and selling-firm factors which may enhance relationship marketing productivity, and provides empirical support for this framework by identifying four variables that leverage the impact of relationship marketing on CSR.

The results of the survey are closely aligned with two recent trends in marketing: determining the return on

marketing expenditure, and moving towards one-to-one customer marketing. They also support the assumption that relationship marketing programs differ in their effectiveness, so if the same financial resources are invested in financial, social and structural relationship programs respectively, they often give very different rates of return. In this empirical study, the return on additional investment in social relationship programs is 78 percent, whereas that on structural relationship marketing is just 23 percent.

Secondly, the influence of relationship marketing on CSR is leveraged by factors associated with each of the three exchange participants: the customer, salesperson, and selling firm. This finding indicates that program returns are not arbitrary, and may be improved using a variety of strategies, including customer segmentation, salesperson selection, training, incentives, and selling firm initiatives. Thirdly, any company deciding to invest in relationship marketing must bear in mind that certain moderators can affect the profitability of the program, and even result in a loss.

The findings of the study suggest that social expenditure has a direct and significant impact on profit, and thereby reaffirm the notion that such investments are worthwhile and can translate to goodwill among B2B customers. Social investments appear to deliver the highest short-term return, which may be due to the immediacy of social relationship marketing, in that sellers can implement social programs in response to current events with little prior planning. Social programs may also create a feeling of personal indebtedness, making customers want to reciprocate and thus generating immediate returns.

Structural relationship marketing investments generate positive short-term economic returns from those customers with above-average interaction frequencies of more than twice a week, which makes these programs attractive for some customers. Sellers can leverage their structural relationship marketing resources by targeting customers with relatively frequent interactions, for whom customized structural solutions offer the most value. Structural linkages should also have an ongoing impact on future profits; although short-term customer response may be based on reciprocation for a perceived investment, customers should continue to take advantage of the value provided by these structural interfaces in the long run.

The return on financial relationship marketing expenditure varies a great deal depending on customer, salesperson, and selling firm factors, although the main effect is not significant and fails to generate positive returns in any context evaluated in this study. The lack of positive short-term returns is probably linked to the ease with which competitors can match incentives and financial marketing resources can be misallocated.

However, although financial relationship marketing is not economically viable in the short term, it may have an important strategic role. Firstly, such investments may be necessary to respond to competitive threats and protect existing business, rather than as a means of generating new business. This reasoning implies that financial relationship marketing may be more defensive, whereas social and structural relationship marketing is a more offensive relational weapon. Secondly, an important component of customer portfolio management involves attracting less valuable customers and building relationships that may grow in the long run, though this strategy is open to misallocation of resources.

For example, it is relatively easy for a customer service employee or salesperson to provide a financial incentive

such as a free sample or special discount, whereas building a personal relationship or implementing a structural program requires much greater investments of time and effort. Thirdly, the findings are consistent with the premise that the advantage of CRM may not be to influence profits directly, but rather to improve the targeting of marketing efforts.

Another important aspect of this research is its investigation of the effects of relationship marketing on customers, salespeople and selling firms. Here, it finds that 61.9 percent of the variance in CSR comes from the customer level, which reinforces the importance of customer-level variables. Only 9.5 percent of variance is at the salesperson level, which is surprising given the perception of salespeople as playing a critical role in the process. The remaining 28.5 percent of CSR variance comes at the firm level, so firm-level strategies are clearly vital to performance.

Implications

Several implications can be drawn from these results. Firstly, managers should have greater confidence in relationship marketing programs, because they work and because they have a measurable impact on bottom-

Description of scenario	Financial relationship marketing investments (%)	Social relationship marketing investments (%)	Structural relationship marketing investments (%)
Overall sample	0	69	31
Ownership interest	8	71	21
No ownership interest	0	64	36
No CRM system	0	74	26
CRM system	7	66	27

Note: Customer relationship marketing (CRM)

TABLE 2:
Optimal relationship
marketing allocation

line results. In addition, the ability to document these economic returns provides managers with a strong argument when requesting resources to spend on relationship marketing.

Second, the study identifies the circumstances in which relationship marketing programs can best be employed. For example, firms may be underspending on social programs, and additional investments could generate greater profits. As structural programs offer the greatest returns when directed towards those customers with whom the firm interacts frequently, managers could target their structural investments toward these customers.

However, the recommendations for financial programs are more complex. The returns from these programs are improved when the selling firm has CRM in place, the salesperson has an ownership interest, and customers are committed to the selling firm. Nevertheless, as a standalone investment, they are not viable in the short term and should only be used strategically to respond to competitors or to attract new customers, rather than with the expectation of a short-term increase in profit. Overall, managers should develop a profile of customers or customer segments that can become the focus of targeted relationship marketing efforts, and vary the mix of programs according to the characteristics of each segment.

Because financial, social, and structural relationship marketing resources provide different returns, allocating them across programs is a complex challenge that must take account of customer interaction, salesperson and selling-firm factors. So how should a manager allocate a given budget across relationship marketing programs? To answer this question, the study develops a post-hoc resource allocation model that provides insights into the optimal mix of relationship marketing programs for a given budget and for different salesperson and selling firm strategies (*Refer to table 2*).

The optimization model indicates that in this sample, sellers should allocate about two thirds of their spending to social programs, one third to structural programs, and nothing to financial programs. It makes sense to allocate 8 percent to financial relationship marketing if the salespeople involved have an ownership interest, but otherwise such investments do not pay off. Similarly, when the selling firm has a CRM system in place, around 7 percent of relationship marketing resources may be shifted to financial programs.

In the five scenarios in *table 2*, social investment ranges from 64 to 74 percent of the total spend, which implies that it should be the key focus of any relationship marketing portfolio. Structural investment varies between 21 and 36 percent, with the recommended allocations being highest for structural programs and lowest for social programs in the “no ownership” group, suggesting that when salespeople have little stake in the company’s profitability, they may be less effective at building strong relationships with customers, more likely to defect to competitors, and more prone to allocating their social investment poorly.

Conclusion

This research investigates the impact of a selling firm’s relationship marketing expenditure on the profit it makes from each customer. It identifies twenty-five potential variables which can leverage this spending. A significant level of moderation was found across all three exchange constituents (customer, salesperson, and selling firm) and all three theoretical drivers (motivation to build a relationship, customer’s willingness to reciprocate, and seller’s ability to allocate resources efficiently).

Social programs have the highest payoff, probably because salespeople quickly adapt by channeling their investment into those which offer the highest returns. Of course, the results of the study are not valid for all firms and all situations. The analysis focuses on a context in which relationship marketing is critical to the sustainability of the business, and it would therefore be useful to replicate the approach in contexts in which relationship marketing does not have such a central role as with the rep firms in this research. Also, the study does not consider the effects over periods of more than one year, or economy- and industry-specific issues. A study examining the impact of relationship marketing expenditure, alternative relationship marketing typologies, and different measurement methods would therefore be valuable.

Furthermore, although short-term economic returns from investment decisions are critical to managers, relationship marketing programs should generate other long-term outcomes not included in the study data, such as cross-selling and upselling. Further research could attempt to explore the long-term payoff of relationship marketing investments by including such variables. •

{ Appendix }

APPENDIX A. CONSTRUCT MEASURES

Measures (units)	Source
Interaction frequency (interactions per week) <i>How many times do you interact with this rep firm in a typical week?</i>	Customer
Commitment to the selling firm (average of three 7-point Likert scale items, $\alpha = 0.95$) <i>I am willing "to go the extra mile" to work with this rep firm.</i> <i>I feel committed to my relationship with this rep firm.</i> <i>I view the relationship with this rep firm as a long-term partnership.</i>	Customer
Growth rate of customer firm (%) <i>What is your estimate of your company's growth over the past year?</i>	Customer
Relationship duration (years) <i>How long have you had business dealings with this rep firm in your career?</i>	Customer
Financial relationship marketing investments (annualized \$) <i>This customer often gets free product and services.</i> <i>This customer frequently gets special pricing or discounts.</i> <i>This customer receives special financial benefits and incentives.</i> <i>The average monthly cost to provide the financial benefits listed above is...</i>	Salesperson
Social relationship marketing investments (annualized \$) <i>This customer is often provided meals, entertainment or gifts by me or my rep firm.</i> <i>This customer often receives special treatment or status.</i> <i>This customer often receives special reports or information.</i> <i>The average monthly cost to provide the social benefits listed above is...</i>	Salesperson
Structural relationship marketing investments (annualized \$) <i>This customer often receives special value-added benefits (inventory control, expediting, etc.).</i> <i>Special structural changes (EDI, packaging, etc.) have been instituted for this customer.</i> <i>Our policies and procedures are often adapted for this customer.</i> <i>Dedicated personnel are assigned to this customer beyond what is typical for our rep firm.</i> <i>The average monthly cost to provide the structural benefits listed above is...</i>	Salesperson
Potential of customer (seven-point Likert scale) <i>The customer represents a large potential opportunity for me.</i>	Salesperson
Experience (years) <i>How many years have you worked for any rep firm including this one?</i>	Salesperson
CSR (\$) $CSR = (\text{Sales to customer}) * (\text{average commission at customer}) * (1 - \text{salesperson variable pay})$, sales to customer (\$) and salesperson variable pay (%) reported by sales manager; average commission reported by salesperson for each customer (%).	Sales manager and salesperson
The next three questions regarding salesperson compensation were prefaced by: "Please answer the following questions for each salesperson listed."	
Compensation (1: < 30k\$, 2: 30k\$ to 60k\$, 3: 60k\$ to 90k\$, 4: 90k\$ to 120k\$, 5: >120k\$) <i>Total 2002 compensation</i>	Sales manager
Ownership interest (0: 0% ownership interest in selling firm, 1: >0% ownership interest in selling firm) <i>% of salesperson's ownership in the rep firm</i>	Sales manager
Relationship-focused objectives (0: 0% of compensation based on relationship-focused objectives, 1: >0% of compensation based on relationship-focused objectives) <i>>0% of compensation based on relationship-focused objectives</i> <i>% of total compensation which was based on customer satisfaction or relationship objectives</i>	Sales manager
Advertising (annual spending in dollars) <i>How much did your rep firm spend in 2002 on all types of marketing programs including tradeshow, advertising, brochures, etc.?</i>	Sales manager
Selling firm size (annual sales in million of dollars) <i>What was your rep firm's approximate annual sales for 2002?</i>	Sales manager
Average tenure of salespeople (years) <i>How many years does an outside salesperson typically stay at your rep firm?</i>	Sales manager
CRM system (0: employ CRM system, 1: no CRM system) <i>Did your rep firm utilize a CRM in 2002?</i>	Sales manager

Note: All Likert items are 7-point scales anchored at 1 = strongly disagree and 7 = strongly agree. Customer specific return (CSR), customer relationship management (CRM)

{ *New Methods* }



/// *How much Bang do you get for your Buck?*

HOW DATA ENVELOPMENT ANALYSIS REVEALS BRAND ADVERTISING EFFICIENCY

Joachim Büschken

The efficiency of advertising is an age-old question in marketing. Do marketers spend too much on advertising, or too little? Is it really true, as John Wanamaker put it more than eighty years ago, that half of advertising spending is wasted, but we don't know which half? How do we know without actually measuring the efficiency of advertising? Data envelopment analysis offers a new chance to answer these questions.

The measurement of efficiency in engineering and economics has greatly advanced over the last years. After all, brand managers are not the only people interested in the efficiency with which their budgets are spent: this is also a key goal in logistics, supply chain management and procurement. It was in these areas in which data envelopment analysis (DEA) was first developed to measure the efficiency of technology and processes. This new method now has countless applications in industry and academia, and it is time to apply it to advertising.

But are brand managers really interested in measuring the efficiency of their advertising efforts? Is this valuable information for them?

It certainly is. Knowing where you are spending too much or too little on advertising allows you to reallocate your budget and get more bang for your buck. This is a simple example of marginal effect analysis: if you are no longer gaining any additional benefit from the money you spend, then spend it somewhere else where you do. The rise of below-the-line communication is a strong indicator of efficiency problems in advertising. Of course, all this assumes that such budget reallocation opportunities do actually exist.

What if this is not true, and the business is spending too much on all channels of communication? In theory, managers should simply reduce their advertising budgets, but this idea has few adherents in practice. Budgets equate to power, which is why CEOs and senior managers often suspect marketing people of believing in their results, instead of knowing them, and are quick to cut advertising budgets at difficult times like these. In most cases, marketers cannot provide hard evidence of why they are spending so much money on advertising, and when times get tough, belief is a luxury.

This is not a desirable situation from a management point of view, because every department should be able to demonstrate its effectiveness and the relationship between its input and output. Marketers like to argue their case by pointing to effects such as increases in brand awareness and brand perception, but is the investment justified? It is time to start answering this question.

Advertising efficiency

Advertising efficiency is simply how much bang you get for your buck, the communication effect (such as increased brand awareness or improved perception) that a certain budget achieves. It is also the output of advertising spend: the more the output achieved from a given budget, the greater its efficiency. This can be increased in many ways. One is allocating the budget more effectively across different communication channels; another is more creative advertising that generates more interest and sympathy among the target audience, and another still is the use of a well established umbrella brand when introducing a new product.

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It is common practice in marketing to measure the effect of advertising using a hierarchy, because advertising effects follow each other in a logical fashion. The first goal in communication is always awareness, since customers unaware of a brand or offering are unlikely to buy it. Awareness is hopefully followed by interest, for which it is a necessary, but not sufficient condition. Ultimately, we want to consumers to desire the product, and to make that desire a reality by buying it, but first of all we have to get them interested in it.

Sometimes, advertising experts measure efficiency by the proportion of viewers of advertising who move from one stage to the next; for example 28 percent of people who show an interest in a product might develop the intention to buy it. This is known as conversion ratio analysis. Conversion ratios can differ greatly from one stage to another, and such differences highlight the specific efficiency problems at different stages of the brand advertising hierarchy.

Advertising efficiency is defined as advertising effect divided by total spend. This definition requires that the division makes sense: if we look at a single effect (say, increased awareness) and divide this by advertising spend, we can say how much money was spent on each percentage point increase in awareness. This is an efficiency indicator which can be used to compare different brands: the higher the ratio, the more efficient the brand.

The problem is that we need to address all stages of the hierarchy at the same time. Also, advertising is typically conducted using various communication channels, such as print, TV, radio and billboards, and we need to differentiate between the efficiency of each, because otherwise meaningful allocation decisions cannot be made.

This brings us to the key issue in efficiency measurement: How do we handle a situation with multiple outputs (a hierarchy of effects) and multiple inputs (several communication channels)? The DEA approach solves this problem very elegantly.

Efficiency measurement in a nutshell

Let's say you are the manager for BMW's 3 series in Germany. With brand recognition of nearly 100 percent, your problem is converting people interested in the brand into actual buyers, without neglecting awareness among first-time buyers. To achieve the desired communication effects, you invest in various above- and

below-the-line communication channels. The latter becomes increasingly important as the marginal effects of above-the-line spending become smaller. You also want to benchmark your brand against the competition, so you need a single efficiency measure which accounts for multiple inputs and outputs.

How should the outputs in the nominator of the "bang per buck" ratio be weighted in order to compute a single effect number? And how should the various investments in different channels be weighted when we combine them into a single number (the denominator of the ratio)? If we simply choose weightings ourselves, we are introducing a possibly devastating arbitrary element to the analysis.

In general, the problem with efficiency measurement is the desire to use multiple inputs and outputs. This reflects the need to consider various complementary inputs and outputs such as awareness and brand sympathy, and means we have to weight the inputs and outputs when computing the single efficiency score. If only a single input and a single output are used, efficiency measurement is simple: we divide output by input and obtain an efficiency score for each unit of analysis.

Solving the weighting problem using the DEA approach

DEA cleverly solves the problem of multiple variables, using optimization to identify the weightings for all outputs and inputs for each brand, so that the efficiency of each brand is maximized. In effect, we assume that managers know how to use inputs so that the outputs are the best for the brand. This does not mean that all brands are efficient, but is simply a best-case scenario. The mathematical procedure is an optimization under various constraints (all weightings add to 1, maximum efficiency is 1, minimum efficiency is 0 and so on).

If we accept the hypotheses of optimal behavior, this is a surprisingly simple procedure. Assuming a brand has the highest ratio of weighted outputs divided by weighted inputs, it is defined as efficient and is scored as 1. All brands which receive this score form the so-called "efficiency frontier" in the analysis. All other brands have efficiency scores of less than 1, and the difference is brand's inefficiency. As a result of this procedure, the efficiency frontier obtained through DEA depends heavily on the selection of brands or units of analysis. Great care is therefore necessary to obtain a useful sample of brands.

In short, DEA generates the following information:

- > What is the efficiency of a brand with regard to the use of inputs and the resulting outputs in relation to “best in class” brands?
- > Which inputs and outputs have positive weightings? Which show positive marginal returns?
- > How much can inputs be reduced or outputs increased in order to become efficient? In other words, how high are the “slacks” in advertising with regard to specific inputs (media)?
- > Which are the benchmark brands that define the efficiency frontier?

Since weights are identified by DEA based on efficiency optimization, the resulting weights can be interpreted as indicators of marginal productivity or “shadow prices”. If the DEA weight of TV advertising for a brand is

zero, we know that this form of advertising has no marginal contribution to finding the best possible efficiency score for this brand. This input should therefore be reduced. If the weight is positive, this indicates that increasing investment in TV advertising would improve efficiency. (Refer to figure 1)

DEA is called an envelopment analysis because it constructs an efficiency frontier from all efficient cases (see figure 1), which “envelops” all brands. This frontier is a linear combination of all brands which are efficient (i.e. have a score of 1). The linear combination arises from the assumption that, in principle, all input-output combinations are feasible, and the distance of a brand from this frontier is defined as its inefficiency.

Different DEA models for different perspectives

An important element of DEA is the assumed scale productivity. By this, we mean whether more inputs should lead to proportionally more outputs (constant returns to scale) or disproportionately more outputs

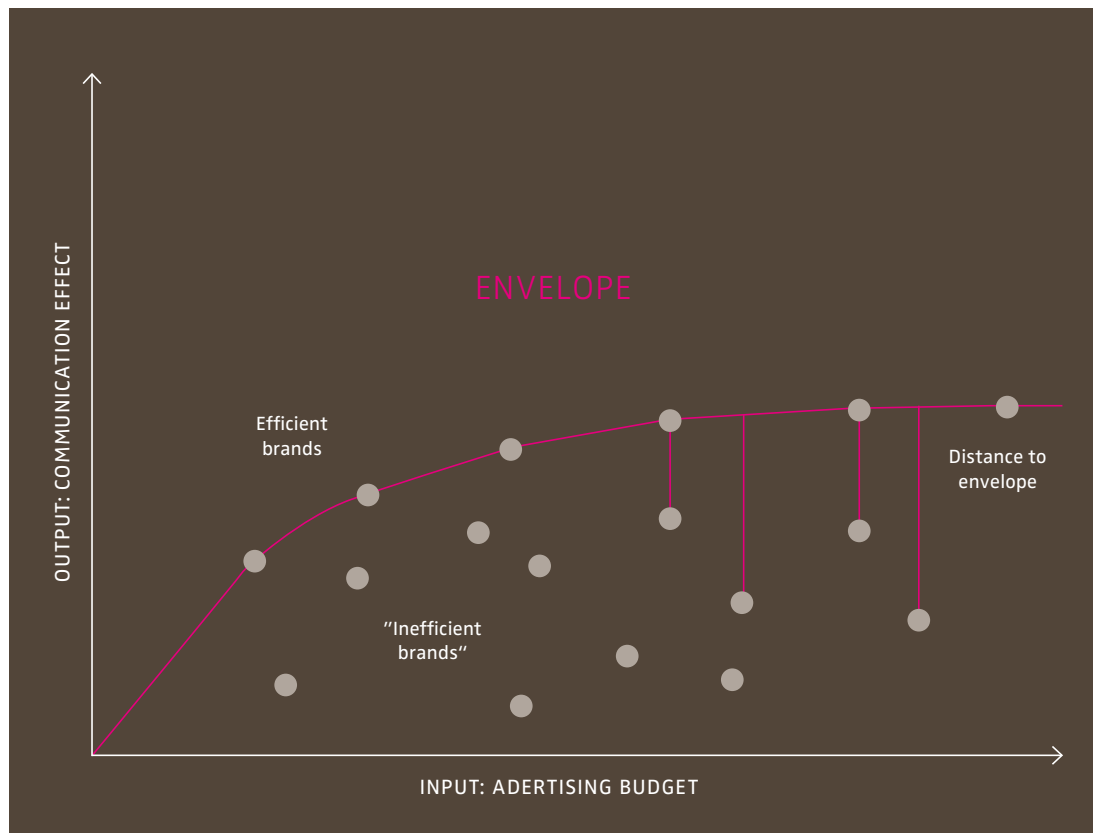


FIGURE 1:
Efficiency in the DEA model
(Source: Büschken (2006), p. 52)

(variable returns to scale). If constant returns to scale are assumed, our expectation is that an additional € 1 in advertising generates the same additional output regardless of the budget; the marginal effect is the same, independently of how much you spend. If variable returns to scale are assumed, we allow the marginal effect to decrease because brands with higher advertising budgets generate less marginal output when inputs are increased than brands with smaller budgets. This variable-returns-to-scale model reflects the typical advertising response function with diminishing returns.

DEA also accommodates two very different perspectives with regard to advertising efficiency, both of which play an important role in practice. One is to take the budget as given and maximize the advertising effect (the nominator). Typically, this is the brand manager's perspective: their goal is not to find the smallest budget which achieves a certain communication effect. We call this the "output perspective", and the respective DEA model is the output-oriented approach, which identifies what output must be achieved in order to become efficient.

Controllers are often interested in reducing inputs given a certain desired output. This is a pure input perspective. The input-oriented DEA model takes this viewpoint and identifies how much input can be reduced, given the output, in order to become efficient. One variant of the DEA model combines the input and the output perspectives.

*Case study: brand advertising efficiency
in the German car market*

The German car market is the most competitive in the world, particularly in the luxury segment, where it includes such brands as Audi, BMW and Mercedes-Benz. It is the only market where these cars can be legally driven to the limits of their capabilities, and German buyers are experienced and highly critical. Lexus has not quite made it here yet.

» The combined input slack amounts to € 450 million, or 8 percent of total advertising budgets. «

Some car manufacturers spend tens of millions of euros on advertising in Germany, and they need to be able to account for this investment. DEA is particularly suited to the analysis of advertising efficiency, as it combines the ability to incorporate multiple inputs and outputs with the capacity to adjust the model to the specifics of a situation in which we must assume diminishing returns. (Refer to table 1)

Table 1 summarizes the inputs and outputs used in this case study. Data was collected for thirty-five brands which together represent a 97 percent market share. The heterogeneity among this set of brands is significant, and justifies the use of a variable- returns-to-scale model in DEA. Such input and output data can be difficult to obtain if the goal is to compare various competitors' brands, but in the case of advertising they are often accessible through public sources. Other applications of DEA concern in-house analyses, and it has been successfully used to compare sales channels or branches within a single company or business unit, where data is readily available.

Measuring inputs

This study is limited to above-the-line spending in euros on TV, print (newspapers and magazines) and radio advertising. Raw spending data for the thirty-five brands was obtained from A.C. Nielsen which, in common with other companies, offers a wide range of brand-specific advertising spend data for many industries.

Simply measuring advertising inputs in euros has a number of shortcomings, and alternative approaches may consider the quality or creativity of advertising, or the length of individual campaigns. The approach used here was chosen primarily for its simplicity: creativity does play a role in advertising, but it is very difficult to measure and its impact on communication effects is not clear.

Although desirable, spending on below-the-line media is not considered, as data is not available. Another limitation of the study is that the focus is the brand, not specific models (such as the 3 series) or categories (such as SUVs). Such differentiation is desirable if the analysis is being used in support of immediate management action, but the goal here is to demonstrate the usefulness of DEA.

Measuring outputs

The hierarchy-of-effects model presents an excellent framework within which to measure advertising outputs

Brand	Inputs: Spendings in Thousands of Euros					Outputs: Percentages of Respondents with			
	Television	Magazine	Newspaper	Outdoor	Radio	Familiarity	Sympathy	Consideration	Purchase Intention
Alfa	9,242.75	6,690.25	4,317.25	9.50	1,625.00	81.1	17.3	3.6	0
Audi	36,117.25	23,334.25	16,858.00	695.25	1,216.50	96.5	58.5	26.9	6.6
BMW	22,358.25	22,830.00	18,308.50	48.25	4,057.50	97.5	62.0	25.4	6.0
Cadillac	0	1,050.25	736.25	0	0	67.3	8.4	.8	0
Chrysler	1,327.50	5,258.50	5,209.25	2.25	2,334.75	71.5	9.5	3.0	0
Citroën	28,947.00	10,354.50	17,142.00	379.75	9,194.25	84.8	11.3	3.6	1.0
Fiat	20,922.00	16,232.75	21,197.50	877.00	8,628.75	93.3	15.5	7.1	3.4
Ford	46,918.00	27,221.50	34,688.25	1,761.00	11,504.50	96.3	39.1	22.0	11.0
Honda	7,975.75	3,792.50	6,854.50	615.50	727.00	86.1	16.4	6.0	1.6
Hyundai	6,697.00	2,721.00	5,044.75	453.50	1,250.75	66.6	4.4	1.3	3
Jaguar	969.75	1,402.25	1,793.25	2.00	43.50	79.5	19.1	2.0	0
Land Rover	4,411.25	3,886.50	2,167.25	0	1,109.25	72.3	14.1	2.0	0
Lexus	691.75	3,508.25	2,190.25	18.50	0	40.9	4.9	1.0	0
Mazda	8,817.25	7,639.25	15,935.75	651.50	6,326.00	88.9	21.5	7.8	3.0
Mercedes Benz	23,957.25	31,995.50	35,280.00	553.50	4,192.00	96.5	58.3	20.9	8.0
Mitsubishi	13,641.50	10,572.50	6,200.00	7.00	2,925.25	83.9	14.3	6.0	2.0
Nissan	9,899.25	9,312.00	15,354.50	1,388.50	9,744.50	87.5	16.8	7.3	2.6
Opel	60,173.00	36,681.50	40,223.00	1,090.50	9,298.00	96.5	49.5	33.5	17.6
Peugeot	36,362.75	31,155.00	16,210.00	258.50	5,056.50	87.0	18.0	8.3	3.0
Porsche	482.25	4,048.50	874.25	0	0	89.8	33.8	4.4	0
Renault	51,507.75	37,040.50	31,578.00	3,131.25	12,783.75	90.4	22.5	11.9	4.6
Seat	10,125.50	5,254.00	5,605.50	44.75	2,169.75	78.0	8.9	3.6	2.0
Skoda	11,155.50	5,057.50	7,391.75	8.25	1,111.75	76.3	6.9	2.8	.6
Suzuki	0	7,412.75	8,735.75	0	279.50	74.8	6.6	2.0	1.0
Toyota	18,271.00	12,750.75	24,984.00	275.25	4,302.25	89.9	23.4	8.6	2.8
Volkswagen	65,176.25	53,366.50	31,687.25	5,594.75	6,960.25	98.0	69.5	52.8	23.3

in a meaningful way, but it must be adapted to take account of the car market's high level of maturity. It is dominated by repeat purchases by experienced buyers, and first-time new buyers are rare, so if brands do not sell, this is not due to a lack of awareness. The following outputs are therefore considered:

> Brand familiarity

Brand familiarity refers to the comprehension of the brand's overall advertising claim. Potential buyers can be familiar with a brand only if they are aware of its attributes.

> Brand sympathy

Potential car buyers are constantly bombarded with ads from car manufacturers. It is unlikely that each has a specific and separable effect; rather, recipients form a broad affective response to ads and other sources of information. This is known as "sympathy", an indicator of how much a particular brand is liked.

> Brand consideration

The ultimate goal of advertising is that consumers consider a brand when buying and make it a part of their evoked set. This is known as consideration.

> Brand purchase intention

Over the course of the decision-making process, buyers develop an intention to acquire a specific brand. This intention can be strong or relatively weak, and reflects the role of other factors which influence choice, such as price.

Such brand-level output data is available for many industries, and market research companies routinely obtain it from large consumer samples. In this case it comes from Germany's largest magazine publisher; Advertising Age publishes similar data in the United States.

Model choice

The DEA model applied to the specific case should be carefully selected, as it can have a strong influence on the results. In this example, an input-oriented model was selected with variable returns to scale (VRS). The input orientation reflects a "quick gain" perspective, because quick gains can be achieved by cutting budgets. DEA, however, highlights specific ways in which budgets can be cut without compromising outputs, because the benchmark cases identified for each brand demonstrate that similar outputs can be achieved for similar brands at lower input levels. On this basis, DEA then identifies

TABLE 1:
Advertising Input and output
data for selected brands in the
German car market

“input slack” (too much spending) for each input separately, which helps greatly in implementing budget reductions.

The VRS model is needed because the marginal output in advertising typically diminishes, and because it gives small- and large-budget brands a level playing field: small budgets are benchmarked against small brands, and big brands against big brands – after all, there is little value in comparing Ford to Ferrari.

Results

Although DEA gives an efficiency score for each brand, this information is largely of a technical nature and is of little help in guiding action. What is needed is help with budget allocation: where does input slack occur, and how high is it in relation to the budget? Table 3 shows these results for the German car market. (Refer to table 2)

The combined input slack amounts to € 450 million, or 8 percent of total advertising budgets. Three brands show notably high levels of slack: Mitsubishi (28 percent), Seat (26 percent), and Fiat (24 percent). Figure 2 shows these differences in efficiency.

Even under the VRS model, not all niche brands are efficient. Whereas Porsche is, Jaguar and Alfa are not.

Most Asian importers over-advertise in the German market: Mitsubishi, Mazda and Nissan could reduce their budgets by 14 to 15 percent. Even Mercedes-Benz reveals excess input of nearly 10 percent, whereas its direct competitor, BMW, is much more efficient in its advertising efforts. Only eleven out of thirty-five brands have excess input of 10 percent or more, indicating that over-advertising is limited to a few brands. So what drives input slack? (Refer to figure 2)

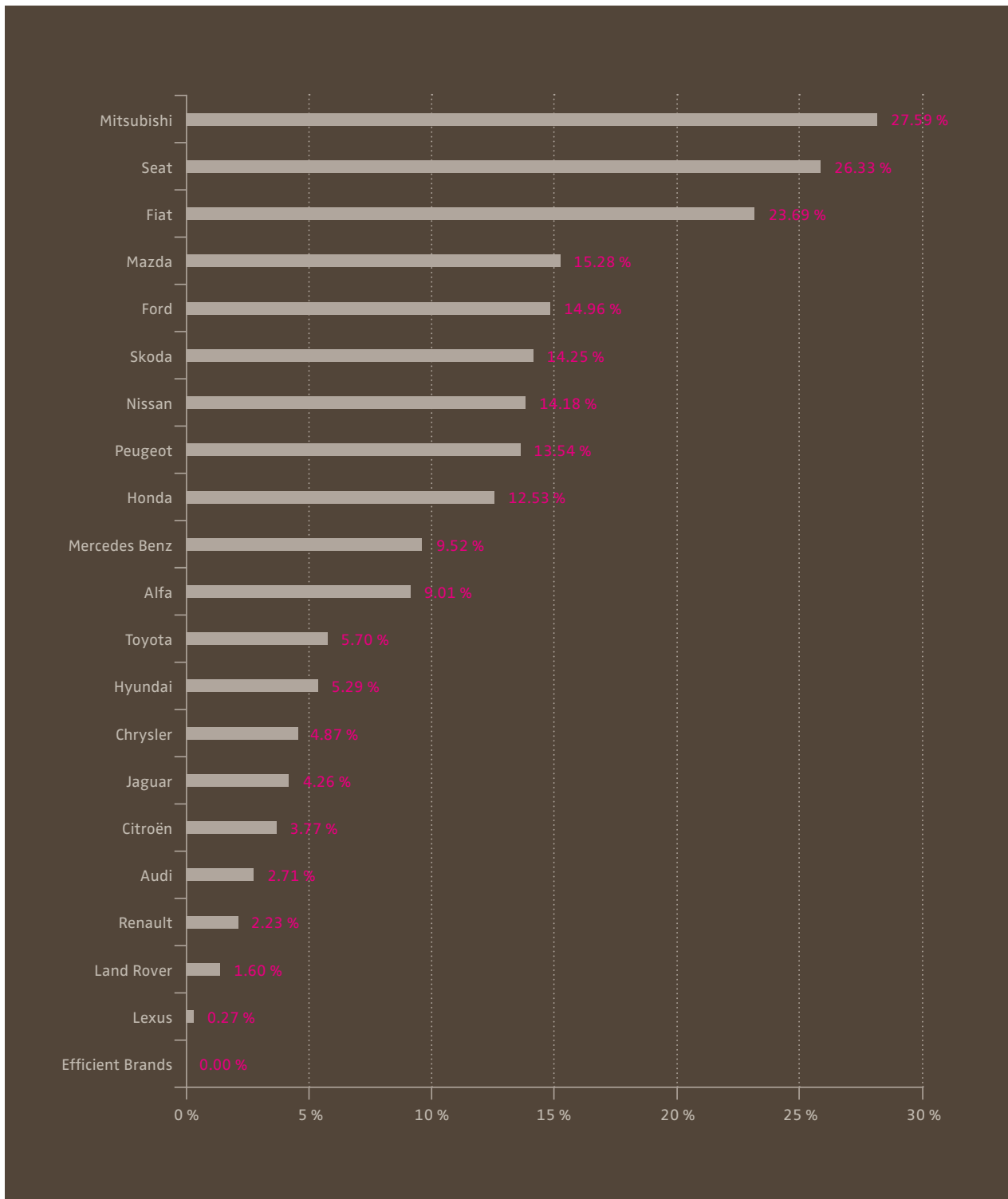
The results show that brands enjoying high familiarity are disproportionately likely to over-advertise. The same problem applies to brands with high sympathy scores, though not every brand with high familiarity and sympathy is inefficient, with BMW being a case in point. One possible explanation is that campaigns at BMW make very specific product-related claims regarding technology and design, which are not targeted at consumers unfamiliar with the brand. Instead, advertising is aimed mostly at converting existing interest into intention, the only way in which high-awareness brands can achieve advertising efficiency.

The average of 8 percent wasted advertising sounds low: should it not be 50 percent? One might argue that advertising efficiency measured by DEA is overly optimistic, or even incorrect, because it uses the best-

TABLE 2:
Input slack for selected efficient and inefficient brands in the German car market (all figures in thousands of euro unless stated otherwise)

Brand	Slack Television	Slack Magazine	Slack Newspaper	Slack Outdoor	Slack Radio	Combined Input Slack	Combined Budget	Share of Input Slack
Alfa	6,049.6	0	0	0	1,838.2	7,887.8	87,539.0	9.01 %
Audi	8,177.2	0	45.3	269.2	0	8,491.7	312,885.0	2.71 %
BMW	0	0	0	0	0	0	270,410.0	0 %
Cadillac	0	0	0	0	0	0	7,146.0	0 %
Chrysler	0	0	1,110.5	.1	1,640.8	2,751.5	56,529.0	4.87 %
Citroën	7,185.8	0	0	10.6	2,768.5	9,964.9	264,070.0	3.77 %
Fiat	12,889.4	6,481.7	24,948.5	379.8	19,600.4	64,299.7	271,432.0	23.69 %
Ford	34,772.2	5,259.8	16,252.5	1,312.4	15,473.1	73,070.0	488,373.0	14.96 %
Honda	5,330.8	1,620.1	1,397.5	1,654.3	0	10,002.8	79,861.0	12.53 %
Hyundai	2,390.8	0	99.8	242.6	687.0	3,420.2	64,668.0	5.29 %
Jaguar	187.2	0	516.9	.4	13.3	717.8	16,843.0	4.26 %
Land Rover	516.0	0	80.2	0	146.0	742.2	46,297.0	1.60 %
Lexus	66.6	0	0	1.8	0	68.4	25,635.0	.27 %
Mazda	0	0	13,117.0	580.8	10,363.7	24,061.5	157,479.0	15.28 %
Mercedes-Benz	0	7,386.3	29,129.0	46.4	0	36,561.8	383,913.0	9.52 %
Mitsubishi	26,522.6	6,995.1	0	0	3,277.3	36,795.0	133,385.0	27.59 %
Nissan	3,377.3	0	4,209.5	2,531.5	15,797.6	25,915.8	182,795.0	14.18 %
Opel	0	0	0	0	0	0	589,864.0	0 %
Peugeot	32,852.2	13,997.0	0	0	1,362.4	48,211.7	356,171.0	13.54 %
Porsche	0	0	0	0	0	0	21,620.0	0 %
Renault	5,757.3	0	0	489.7	5,866.6	12,113.5	544,165.0	2.23 %
Seat	22,924.7	479.3	0	0	935.6	24,339.6	92,798.0	26.23 %
Skoda	10,131.7	2,475.2	1,135.6	0	345.7	14,088.2	98,899.0	14.25 %
Suzuki	0	0	0	0	0	0	65,712.0	0 %
Toyota	4,390.2	0	9,434.9	0	0	13,825.1	242,333.0	5.70 %
Volkswagen	0	0	0	0	0	0	651,140.0	0 %

Figure 2:

INPUT SLACK FOR SELECTED EFFICIENT AND INEFFICIENT BRANDS
IN THE GERMAN CAR MARKET

case scenario. DEA automatically identifies all cases that lie on the production frontier as efficient, regardless of their true efficiency. The number of efficient cases depends on the number of inputs and outputs in relation to the number of cases. The more variables used, the more cases become efficient because there is more “room” for cases in a higher-dimensional space of inputs and outputs. In turn, inefficiency is concentrated in a subset of the sample.

According to the DEA results, nine out of thirty-five brands are efficient under the VRS input model and, by definition, have no slack. Measuring average input slack of 50 percent for all thirty-five brands would require the twenty-two inefficient brands to over-advertise by 60 to 70 percent of their budget. Such cases do exist (for example Seat’s input excess for input television was 83 percent in 2001), but they are rare. It seems that John Wanamaker’s claim is highly exaggerated.

Customer satisfaction and a larger product portfolio reduce advertising inefficiency

DEA provides a variety of indicators showing how advertising efficiency can be improved, and points out those inputs which firms should be able to reduce without compromising output. It also identifies specific benchmark brands for each brand, which can greatly help to identify sources of inefficiency. Beyond this, however, many additional factors may contribute to inefficiency.

In the car industry, customer satisfaction may exert a strong influence on efficiency. If consumers are highly satisfied with their last purchase, advertising accelerates their recall of this positive experience and increases its beneficial role when choosing between brands. But the influence of satisfaction extends beyond individual experiences.

Across the globe, market research companies such as J.D. Powers routinely measure customer satisfaction with car brands. Information exchange between customers, which in former days was relegated to word of mouth, is now accelerated and enhanced by the systematic collection and publication of satisfaction data. Some advertising campaigns even use customer satisfaction rankings as a core claim. It is therefore straightforward to assume that the effect of advertising is supported by higher customer satisfaction, and hence decreases advertising inefficiency.

Another important efficiency driver is the size of a brand’s product portfolio. A small portfolio (few car models)

reduces the chance of acquiring buyers in a market with different tastes, regardless of advertising. Extending efficiency analysis in this manner is simple, because customer satisfaction data is so readily available for so many brands. The American Customer Satisfaction Index is a good example, and market research companies in Germany and Sweden publish similar figures. Germany’s most popular car magazine, *Auto, Motor & Sport*, publishes customer satisfaction data from new car buyers on a yearly basis.

It is also straightforward to assume that brands with a larger product portfolio can achieve higher efficiency, all other things being equal. In a market with heterogeneous preferences (different customers like different things), a wider selection of models, styles, engine types and so on increases the attractiveness of the brand.

Advertising is of little help when customers cannot find the model they are looking for. Even luxury brands in the German car market are remarkably different with regard to their product mix; Mercedes-Benz offers a selection of more than forty E-class models alone, while BMW is much more selective and offers less variety.

Based on these considerations, this study compares a brand’s advertising inefficiency as measured by DEA to customer satisfaction data and the reach of its product portfolio. Measuring reach is simple: based on information given on carmakers’ websites, it was established whether each brand offered one or more models in fifteen different segments. These segments range from subcompacts to SUVs and are routinely used in industry analysis. The 1/0 indicators for each segment were weighted for the total number of cars sold in Germany in each segment, added and then divided by the total number of car sales across segments. In effect, a variable was constructed which measured the reach of a brand’s portfolio on a scale between 0 and 1, where a brand with a score of 1 has complete reach. In this data set, reach ranged between 3 percent (Land Rover) and 83 percent (Renault).

The portfolio effect on advertising efficiency turned out to be very strong. An increase in reach of 1 percent decreases inefficiency by 8 percent. This is not to say that carmakers should develop new models in new segments to increase advertising efficiency, but rather that brands with smaller portfolios should expect less efficiency from their advertising. An analysis like this one can measure how much inefficiency is due to the portfolio effect.

It was also found that higher quality perceptions and higher perceived value for money, as shown in customer satisfaction surveys, greatly influences advertising efficiency. It is indeed the case that higher satisfaction increases efficiency in advertising, and there is a significant interdependency between product quality, pricing and advertising. Advertising should therefore be closely coordinated with the results of customer satisfaction analysis; if satisfaction scores drop, the impact of advertising suffers. This is a phenomenon of comparable magnitude to the portfolio effect.

Interestingly, brand ownership (the brand consumers currently own) has little influence on advertising efficiency. It is not the case that advertising has more impact on owners of the same brand; rather it seems that car buyers are experienced, sometimes even sophisticated decision makers whose knowledge about brands comes from a variety of sources. There is no home team in the German car market that brand advertising can root for.

Lessons

Marketers should not be shy when it comes to maximizing the efficiency of their market-related investment. There are many powerful methods which help to measure and explore the efficiency of these investments, and which can be brought to good use. DEA is an exemplary case. It is extremely powerful because it can be flexibly adapted to any situation, accommodating multiple outputs and inputs. The variety of DEA models (input/output/both, VRS/CRS etc.) is enormous, and the user does not have to make assumptions about the weighting of variables. Besides, we all know that any subjective weighting is useless. The case study presented here shows that the information resulting from DEA can be very helpful in pointing at ways to increase efficiency.

Tools such as DEA can help to put marketing back on the offensive, something we need more than ever as we contemplate the beginning of a possibly historic recession. Strong arguments are needed to defend advertising budgets which would otherwise be eliminated, yet at the same time, most of these budgets have room for reduction. The question is where, why and how to ensure that the outcome is not compromised. DEA can help here too, so use it before others do. •

FURTHER READING

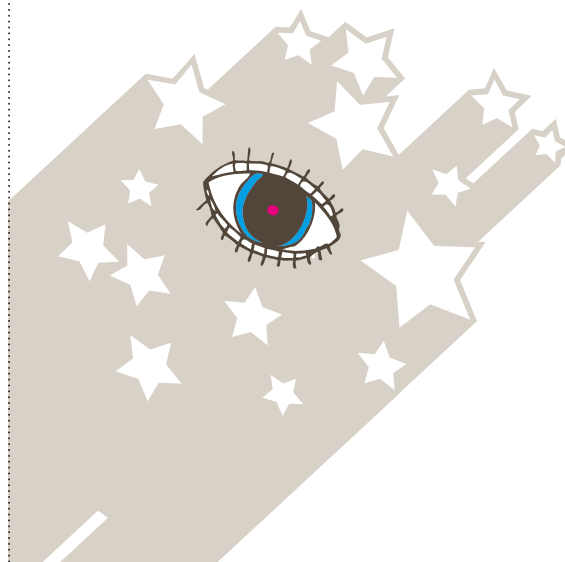
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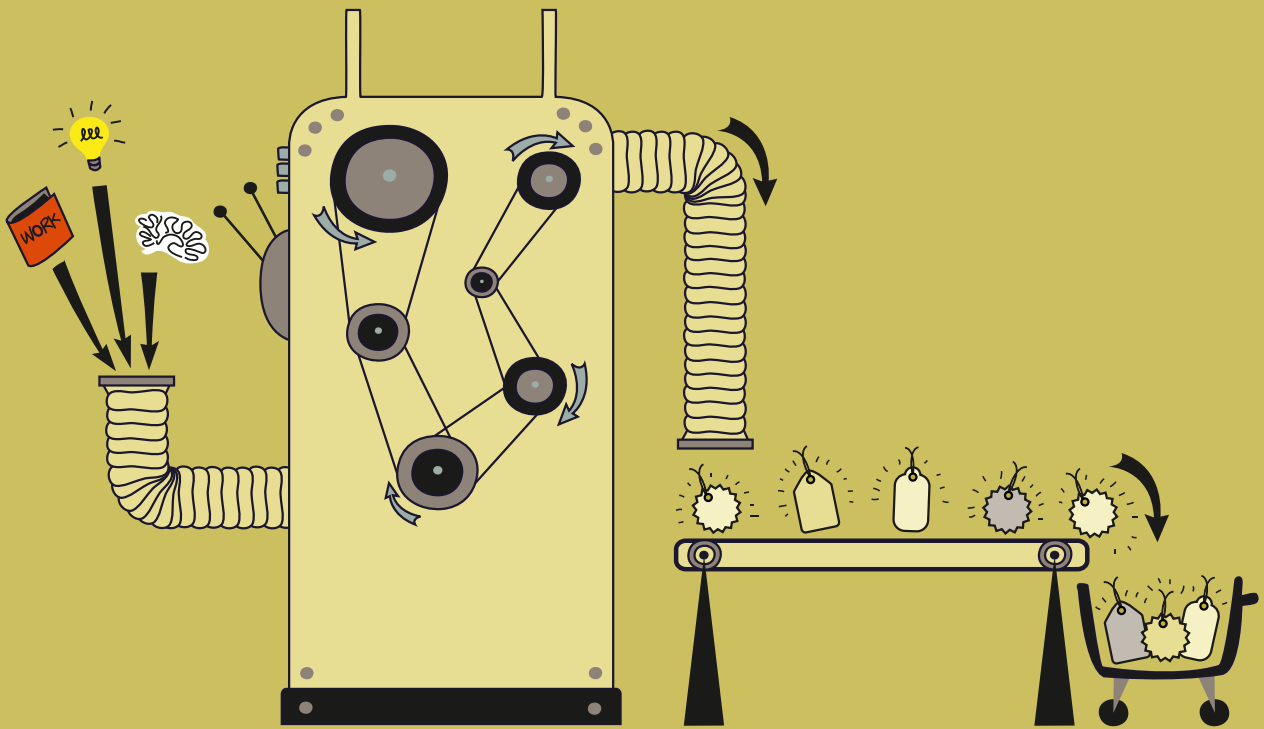
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/// Automatic pricing and promotion decisions.

DYNAMIC PRICING SUPPORT SYSTEMS FOR DIY RETAILERS – A CASE STUDY FROM AUSTRIA

Martin Natter, Thomas Reutterer and Andreas Mild

Merchandise managers have long dreamt of automated dynamic systems to help them make well-informed pricing decisions. However, such systems have proved as elusive as the Holy Grail – until now, that is. The story of an Austrian DIY retailer shows often undetected opportunities to use valuable information, hidden in retailers' data warehouses, on consumer reactions to previous price changes in order to make automatic pricing and promotion decisions.

Effective pricing has always been something of a challenge for retailers with extensive product ranges. Managing the pricing of a wide variety of items, and responding effectively to changes in supply and demand, is a highly complex, labour-intensive and time-consuming task. Add to this the demands of promotions and the impact of competitor pricing, and it is not hard to see why simple solutions, such as high-low pricing strategies and the rationalization of the product range, have long found favor.

An Austrian DIY retailer, bauMax, with over 120 stores, sales of approximately € 1.25 billion in nine central and eastern European countries, and a 25 percent market share in its domestic market, appears to have achieved the Holy Grail of retailing, long thought to be near-impossible.

It has successfully developed an automated dynamic pricing system, designed to support retail purchasing, merchandising and marketing managers in their pricing and promotion decisions. The system automatically pro-

cesses article-specific pricing and promotion recommendations, ensures no article is out of stock, accounts for indirect contributions from lift effects, and is applicable across regions and countries, taking into account the differences in taxation and currencies.

Clearly, the development of such a system requires significant investment, but bauMax shows the rewards can be great. Once up and running, it produced a 2 percent increase in sales and an 8 percent rise in gross profits.

Developing an accurate model of pricing behavior

The heart of bauMax's system is a weekly demand model for 60,000 stock-keeping units, incorporating a wide range of factors that impact pricing, such as seasonality, item availability, discounts, and other reference effects.

The challenge for any company thinking about developing such a system is how to accurately capture customers' purchasing behavior without producing a model that is overly complex. Building simple but accurate models is of crucial importance to retailers selling so many different products.

bauMax's model uses a unique combination of equations that aims to reflect the relationship between price and demand in the real world. These capture not only how customers respond to changes in the price of a single item, but also the influence of simple external factors such as seasonal demand fluctuations, and more complex ones such as complementary or substitutional effects (*Refer to box, next page*).

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The article is based with the permission of INFORMS on *Natter, M., Reutterer, T., Mild, A. and Taudes, A. (2007): An Assortment-Wide Decision-Support System for Dynamic Pricing and Promotion Planning in DIY Retailing, Marketing Science, Vol. 26 (4), 576–583.*

{ Box }

THE HEART OF THE PRICING MACHINE

The bauMax pricing decision-support model uses six core equations to express the relationships between price, demand, and profit. A seventh equation was added at a later date (for details, see the main text).

Equation 1

Individual transaction histories show that the average DIY shopper is highly price conscious. The system represents this in a form known technically as an 'unobserved reference price', modeled as an exponentially smoothed function. Customers frequently make a mental comparison of prices not only at the time of purchase, but when checking the bill at home, putting an item away, or even when using it for the first time. Inherent in the model's equation is the assumption that the store's price-sensitive customers adapt their expectations more rapidly to price reductions than to price increases. This assumption is supported by the fact that stores advertise reductions rather than increases.

Equation 2

The second equation establishes the impact of pricing and availability on stock levels. In addition to information on the price and reference price of an item, it takes into account the impact of current demand trends, seasonality, the number of branches, discounts, and so on. Seasonality plays an important role in shaping demand in categories such as gardening tools and building materials. Differences in the stock levels of the various outlets can have an impact on demand at the store level. The model also makes it explicit that overly frequent price promotions will cause the price to drift towards the lower end of the range.

Equation 3

This takes account of asymmetric interdependencies in pricing. It does so by calculating the item-specific profit-lift effects related to direct and indirect discounts, based on shopping basket data.

Equation 4

This tests for complementary cross-effects. The equation is based on the item-level calculation of two interrelated probabilities: that of choosing item x when item y is already in the basket, and that of observing item x in baskets that do not contain item y.

Equation 5

This takes into account the fact that substitution effects are only observed in about 10 percent of bauMax's product range. It also reflects the conditional profit contribution (either positive or negative) of interdependencies producing product lift.

Equation 6

This adds substitution effects into the scenario. As the retailer is only concerned with the impact of substitution on profits, the equation multiplies the lift effect by the difference in the profit contribution.

For a more detailed discussion of the pricing model implemented by bauMax see:

Natter, M., Reutterer, T., Mild, A. and Taudes, A. (2007): An Assortment-Wide Decision Support System for Dynamic Pricing and Promotion Planning in DIY Retailing. Marketing Science, Vol. 26 (4), 576–583.

Building a smart but manageable revenue management system is only one part of the story. The building blocks of the bauMax dynamic pricing system show that the data and computational issues involved in such a project are hugely challenging. (Refer to Figure 1).

The data needs to be routinely retrieved from such diverse sources as inventory management, marketing information and point-of-sale scanning systems. In order to estimate the model parameters, the data must be refined and interlinked. Fortunately, bauMax had already implemented an advanced company-wide data warehouse solution, which facilitated many of these data pre-processing operations.

The computational burden of repeatedly evaluating several thousand item-specific market response models and then determining optimal prices shows the importance of keeping the demand models as simple as possible. In addition, the huge product range and significant computational restrictions made it unfeasible to account for all possible cross-item purchase correlations in the model. bauMax's pricing support system resolves this issue by incorporating a proxy for the complex interrelationship structure of complementary and substitutional purchase effects in the item-level profit functions to be optimized by the system. This is accomplished by the so-called profit-lift effect measure, which is determined by mining bauMax's shopping basket data for significant deviations from expected item-specific purchase inter-correlations (equations 3–5).

However clever and sophisticated bauMax's system might be, there is a world of difference between possessing a shiny new tool and ensuring that it is used in a proper and effective manner. The challenge for bauMax was to ensure that the dynamic pricing system was positioned within the organization in a manner that would ensure that its pricing recommendations were acted upon.

To address this challenge, bauMax located the system within a three-step process that starts with managerial input and ends with performance monitoring.

In the initial step, managerial input is required to establish the underlying pricing conditions. This is also the point at which any necessary modifications, based on the feedback and experience from the previous rounds of pricing, are incorporated into the system.



FIGURE 1
A typical bauMax store layout

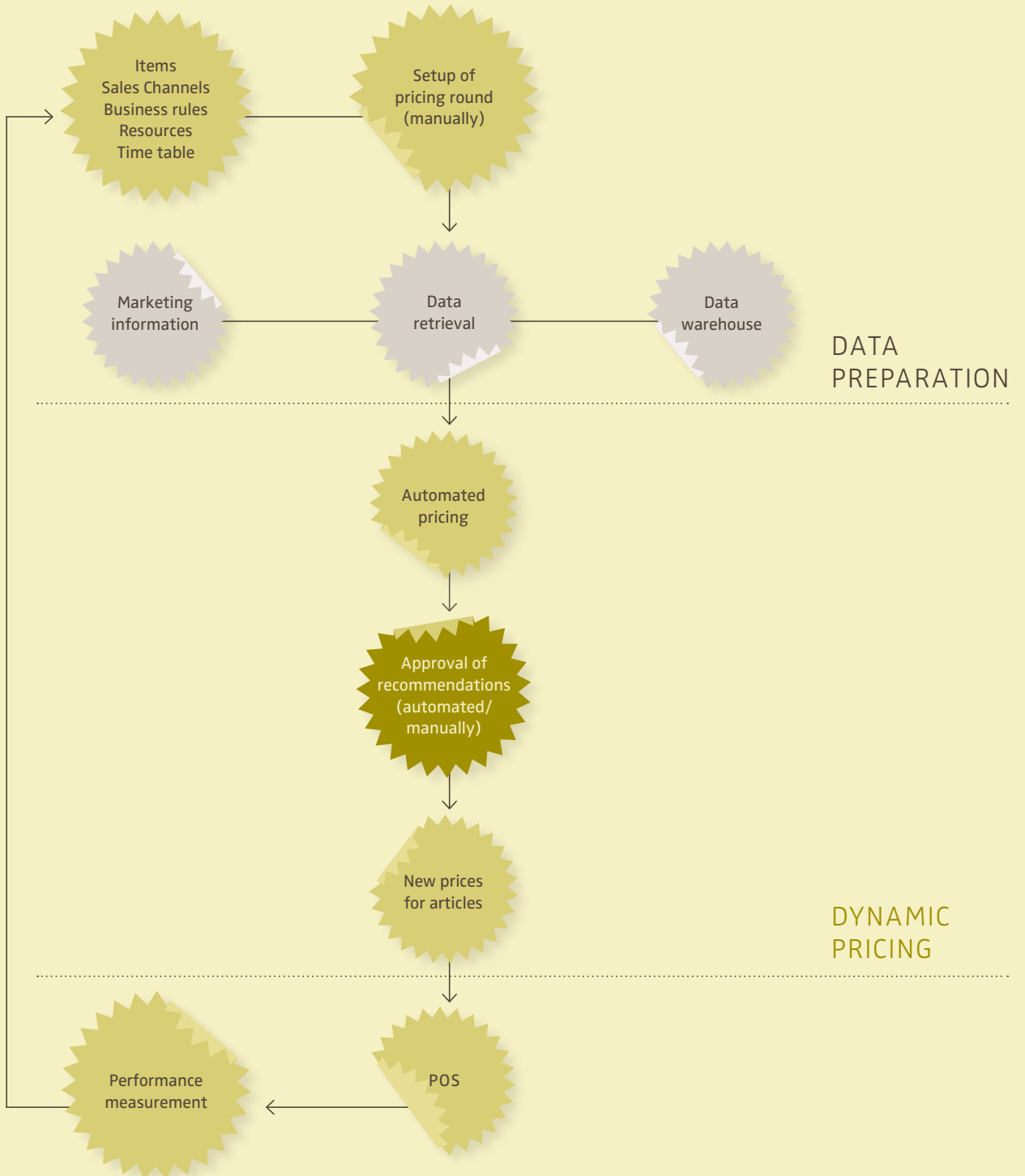
The senior managers will need to answer a number of critical questions to set the boundary conditions for the system. For instance, are there any current limits to marketing resources? Will the existing business conditions impose any new constraints on prices? The system claims neither to be a substitute for managerial experience in answering such questions, nor to be fully comprehensive. One of its present constraints, for instance (though this may well be addressed at a later stage of development), is that the system makes little allowance for price differences across the various sales channels of the company. (Refer to Figure 2, next page)

Once these decisions have been made and the feedback from previous rounds has been incorporated, the automated system takes over. It retrieves the necessary data from the data warehouse and then generates the optimal prices for each item within the retailer's offer. These decisions are transferred to store managers automatically, thereby ensuring that up-to-minute information is available at the point of sale.

This is not the end of the story, however. No merchandise manager responsible for price and promotion planning at bauMax likes to be overridden by an automated system, so the process provides room for managers to reject or modify its pricing recommendations. If they do so, however, they must record the reasons for their decision.

This step has proved highly useful in improving the effectiveness of the model from a number of perspectives. Initially, it did not take into account the merchandise managers' preference for maintaining the uniformity of product families (for example in terms of different color

Figure 2:
PRICING PROCESS



variants or package sizes). The discrepancies generated by the system, for example introducing price differences between colors, quickly proved unacceptable to the merchandise managers. However, once they had a chance to make their objections known through the feedback process, these concerns could be responded to and the model adjusted as appropriate.

A second area of concern for the managers was the system's recommendations to raise prices in circumstances where they knew competitors' prices to be lower. Initially, they regularly overruled these decisions. However, once the reasons for this pattern were understood through the feedback process, the system was modified, providing a better explanation of why price rises had been recommended. This information might include, for instance, the fact that demand for a particular item was known to be relatively inelastic, or that customers showed a low level of price consciousness regarding an item. This was an important lesson for the team implementing the system. The extra information they added helped to reassure and convince the store managers, raising their overall acceptance of the system's recommendations.

The final step monitors and evaluates the effectiveness of all pricing decisions, including those in which the store manager has intervened, in terms of their effect on profits and sales. This information is then fed back to the senior managers and action taken, wherever necessary, to fine-tune the model. This feedback loop ensures that the model goes through a process of continuous improvement.

Fully involving merchandising managers in the implementation process

Introducing any new tool into the decision-making processes of a large retail business is always something of a challenge. The usual approach is to ensure that the tool is first piloted and then rolled out across the organisation. However, a system as complex as bauMax's presents a challenge of a higher order. Not only does pricing lie at the heart of retail profitability, making the risks involved in introducing such a tool significant, but the tool itself will need to be proved on a wide range of items, and in a variety of circumstances, if the trials are to be of any real worth. The trials also need to take account of the likely response of users. If the pricing tool were to be rolled out too quickly, for instance, before all glitches had been properly ironed out, then resistance to its use could build up among the merchandise managers who are its key users.

» Introducing any new tool into the decision-making processes of a large retail business is always something of a challenge. «

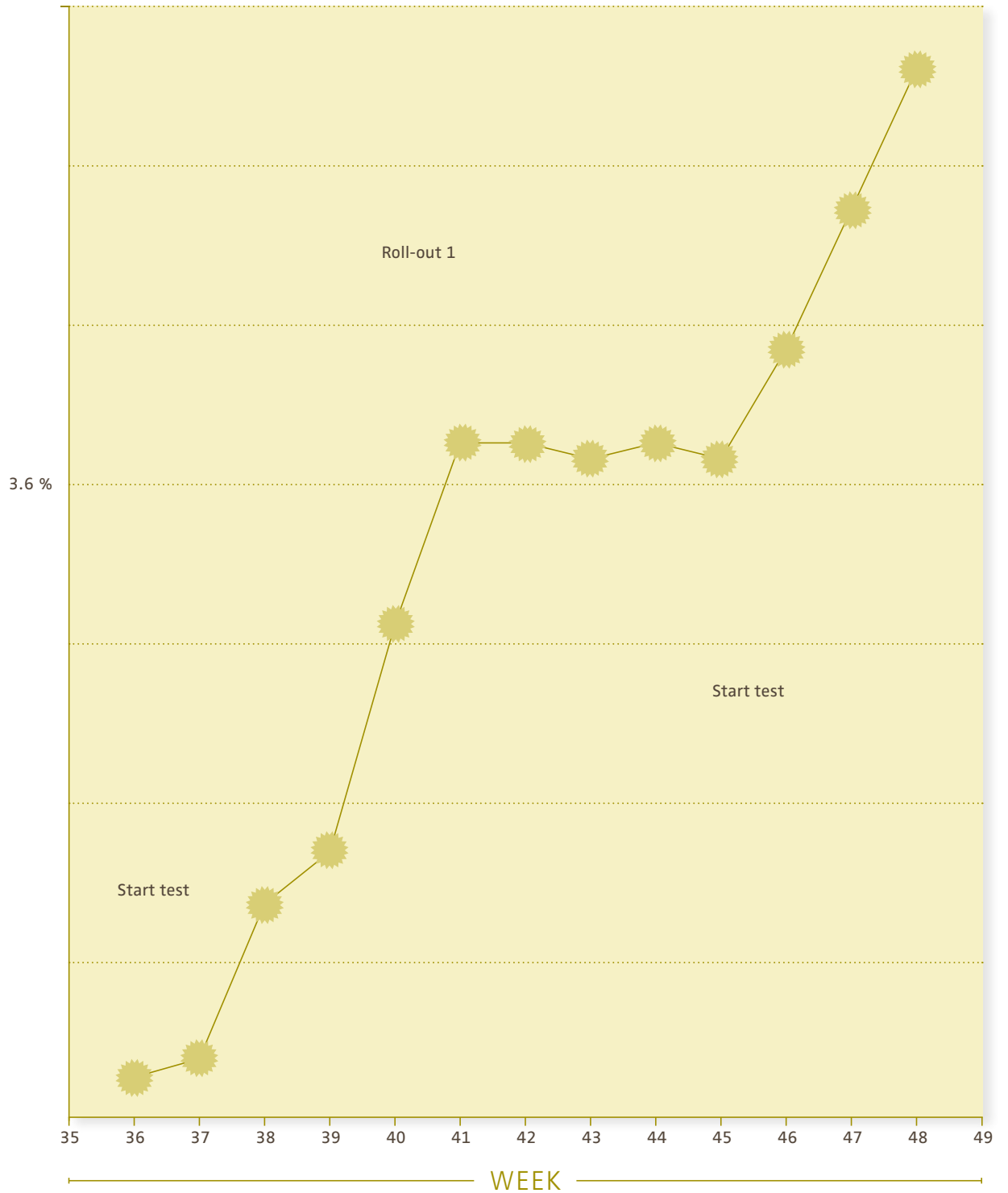
No one at bauMax wanted to see the worst-case scenario, in which the trials went badly wrong and endangered the retailer's profitability. It resolved these challenges by introducing a three-phase implementation program that incorporated room for modification in each phase.

In the first, the system was used to price a limited number of items in just ten representative stores in Austria. To ensure the system was behaving as expected, the performance of these items was benchmarked against a set of control stores with similar characteristics to those in which the system was being piloted.

This phase turned out to be extremely important in convincing the initially rather skeptical managers of the new system's effectiveness. For the approximately 1,900 articles involved in the initial pricing round, profit differences between test and reference outlets were computed and cumulated over a period of weeks. When relative profits increased by 3.6 percent only six weeks after starting the first pricing round, management rolled out the new prices to all Austrian outlets by week 41. After this, profits also increased in the remaining outlets and differences diminished over the next few weeks until the second price round began. The following price rounds showed similar patterns, which significantly increased managers' acceptance of using the system on a wider scale. (Refer to figure 3, next page)

In the first few rounds, only the core system equations were tested. In subsequent rounds, the number of items was gradually increased and the profit-lift functions incorporated into the system trial.

Figure 3:
CUMULATED PROFIT DIFFERENCES (IN PERCENT)
BETWEEN TEST AND REFERENCE OUTLETS



In phase two, bauMax took stock of the results of phase one and made a number of modifications to the system. It also extended the range of stores taking part in the trial, including outlets outside Austria for the first time.

The most significant changes made during this phase resulted from the fact that phase one showed a need to take account of the pricing system's impact on sales volumes. Following the introduction of the system, and although the profitability of each tracked item increased as predicted, higher prices sometimes led to decreased sales. The merchandise managers were therefore understandably worried that improved profitability might cause them to miss their sales and volume targets.

Following discussions with the managers, bauMax added equation 7 to the decision support model. This added an array of commonly used pricing strategies and gave an explicit weighting to each of them that reflects their relative impact on the resulting gross profits. Although the overall pricing system continues to reflect the owner's and CFO's emphasis on maximizing profitability, it now also takes into account the relationship between price and demand, and its impact on sales volumes.

This new equation not only improved the effectiveness of the decision support system, but was also a very significant factor in raising its level of acceptance among the merchandising managers. On the one hand, the process of introducing these modifications had given them the chance to get to grips with how the system actually worked. On the other, the managers were now sure that it reflected their own merchandising experience.

Phase three started eighteen months after the project began, and rolled out the system to all the stores across the company. In this phase, and subsequently, the pricing rounds were carried out twice monthly. Each round incorporates both management's recommendations in line with the company strategy, and feedback from store managers.

Implications of automated pricing systems for retailing

The introduction of bauMax's system has not only led to increased sales, but has also had a very positive impact on profits. With such results, and in today's cash-constrained times, the question on every executive's lips is therefore likely to be whether a similar system would be applicable in other contexts.

The experience indicates that automated pricing systems can potentially have a similar impact in businesses and industries which fulfil three specific criteria:

- > They trade predominantly in fast-moving consumer goods (slow-moving items would require some modifications of this model)
- > They have medium- or long-term product cycles (this excludes fashion and electronics products, for instance, which tend to have short cycles)
- > They have access to sufficient historical data on price changes. bauMax did not, and had seen very limited price movement in a large number of items, but overcame this problem by carrying out a series of experiments to develop a database of price elasticity and price effects.

Though the impact of this system has already been substantial, bauMax has its eye on a series of further developments. As yet, the system has only a limited ability to deal with competitor data – it has started by tracking the prices of the 100 leading articles on which competitors focus. Future developments are likely to extend this range. One particularly interesting research area is the creation of an integrated demand-and-supply-chain management model that will link pricing to inventory and production planning.

There are a number of information technology improvements that can be expected to further enhance marketing intelligence solutions like that implemented at bauMax. Improved computing power and data handling facilities at continuously decreasing cost, advanced research techniques for processing hundreds of sales response functions simultaneously, and modern point-of-sale technology such as electronic shelf labeling systems, should enable companies like bauMax to reduce the menu costs of dynamic retail pricing systems in the very near future.

However, putting aside all these technological aspects, one important lesson can be learned from the bauMax success story. If marketing intelligence systems are implemented imaginatively, they do live up to the claims made for them. The lesson we can learn from this project is that getting skeptical managers and users onside in the early stages of implementation is crucial. If such issues can be adequately resolved, automated pricing systems face a bright future. •

{Hermann Simon}



Hermann Simon is the chairman of the strategy and marketing consultancy Simon-Kucher & Partners, which has offices in eighteen cities around the world. He is an expert in strategy, marketing and pricing, and was recently voted the most influential management thinker since Peter Drucker.

Professor Simon has published over thirty books in sixteen languages, including the definitive *Preismanagement* (1992), the worldwide bestseller *Hidden Champions* (1996), *Power Pricing* (1997), *Das große Handbuch der Strategiekonzepte* (2000), *Simon for Managers* (2001), *Strategy in Competition* (2003), and *Think* (2004). *Manage for Profit, Not for Market Share* was published in 2006. This provocative book takes a critical look at the widespread focus on volume and market share and calls for a conscious shift of focus towards profit. His most recent book, *Hidden Champions of the 21st Century* (New York 2009) investigates the strategies of little-known world market leaders.

Before committing himself fulltime to the management consulting business, Simon was professor of business administration and marketing at the universities of Mainz (1989-1995) and Bielefeld (1979-1989). He was also a visiting professor at various international universities: Harvard Business School, Stanford, London Business School, INSEAD, Keio University in Tokyo, and the Massachusetts Institute of Technology. Between 1985 and 1988 he was the director of the *Universitätsseminar der Wirtschaft* (now the European School of Management and Technology) at Schloss Gracht in Cologne. •

THE INTERVIEWER

This interview was conducted in Bonn on November 25, 2008 by the editor-in-chief, *Professor Hermann Diller*



EXCLUSIVE

MIR TALKS TO PROFESSOR HERMANN SIMON

Conducted by Hermann Diller

MIR: *Hermann Simon, you're in virtually daily contact with high-ranking decision makers in marketing. Do you think they've become more professional in recent years?*

SIMON: Professionalism in marketing is definitely increasing, especially from a long-term perspective. However, it also varies a great deal between sectors and companies. It starts high up. If senior managers require decision-making support that's underpinned by data, they'll get it, and this creates a fact-based culture. But if leadership is based more on gut feeling, which may include arbitrary decisions at times, then marketing does not become more professional.

MIR: *Does market research play a key role in this positive trend? In other words, is professionalism linked to market research, or are we talking about a different type of professionalism?*

SIMON: Market research plays an important role, but the correlation between market research and decision-making is even more important. I'd describe it as a debate. Companies with a high level of professionalism spend a lot of time and energy on this debate, continuously questioning what works, modeling different scenarios, and talking to other people.

Premium car manufacturers will normally commission not one but two market research studies when making important decisions, so they can examine the issue in depth and obtain a second opinion, just as you would in medicine. If the two opinions agree, you can be reasonably sure you're doing the right thing. If they're contradictory, you might even have to get a third opinion. This debate is extremely important, right through from collecting the raw data to implementing the decision and ensuring that it's accepted, for example by your sales department.

MIR: *How important is professionalism compared to all the other skills you'd expect of a good manager, such as a willingness to take risks, entrepreneurship, and strength of leadership?*

SIMON: Well, expressing it in figures, I'd say it counts for 50 percent of the total skills you need.

MIR: *That much?*

SIMON: Yes. Let me give you an example. It takes a lot of entrepreneurial courage to deviate from previous practice because the facts tell you that you should. Porsche's Cayman model – which was derived from the Boxster – was launched three years ago. The Boxster was a convertible, but the Cayman is a hardtop. The sector practice is that convertibles consistently cost about 10 percent more than hardtops, and hardtops 10 percent less than convertibles.

In the case of Porsche, exactly the opposite was implemented, with the basic Boxster model costing € 52,000 and the Cayman being launched with a price of € 58,000. Such an approach requires very determined entrepreneurship, the kind that only a strong manager like Porsche's CEO, Wendelin Wiedeking, can muster.

MIR: *Was this decision based on analysis?*

SIMON: It was based on very careful analysis, using a variety of methods, in Europe and worldwide. We also know of cases where the very opposite happens. For example, we were recently working with a manager who said: "Yes, we'll do a pricing project now, but on one condition: we mustn't lose a single customer as a result. If the newspapers say that we've lost a customer or our market share has decreased, I'm in the firing line."

MIR: *You recently said in a paper on the practical role of marketing science that decision support systems are one of the big success stories of marketing. To be honest, that surprised me, because we saw a similar optimism about management information systems in the 1970s, but it soon gave way to disillusionment. It's surprising that these systems, which are basically about automated decision-making, are experiencing something of a renaissance. Are we handing over our professionalism to computers?*

SIMON: No. Here again, interpreting data, using it to make decisions and then getting these decisions accepted is still hugely important. I would strongly reject the notion of automation in this context. The decision-making models are not automated models that managers use in day-to-day business, looking at them once a week or once a month and saying, "Okay, let's enter some new data and use it to generate a new decision." They're decision support models that are used to make important decisions like new product launches, repositioning, and responding to things your competitors do, but they're always carefully re-examined.

This is not compatible with what John Little said in 1971, which was that computers would one day provide ready-made decisions for managers. Today's models are a mix of quantitative analysis and the very important input from people with an in-depth understanding of the model and the market.

MIR: *Apart from conjoint analysis, what other models do you use?*

SIMON: One method that's very important to us is expert judgment. This means that the experts, usually the company's own sales and marketing people, retailers and others, give their assessments of the effects of certain actions. For example, when you've got a completely new product such as a drug with new therapeutic indications, the doctors who prescribe it are not generally in a position to make a judgment about it. In these cases, we also survey the medical

» Creativity and marketing intelligence are completely intertwined, because the basis of everything is the value that you deliver to customers, and it takes creativity to create value. «

researchers who've tested the product. Focus groups are also important. The findings are obviously not just entered quantitatively in the models, but they supplement the information and help to produce a sound overall assessment.

MIR: *Do you include them in something like a market success simulation model?*

SIMON: Yes. Simulation models are a big step forward, and perhaps we should be talking more about simulation models than decision support models.

MIR: *You've mentioned pricing and new product decisions, but are there any other areas where these models can be used?*

SIMON: Sales is one big area, of course.

MIR: *And which particular issues?*

SIMON: How should you use your sales team, do you have too few or too many salespeople, how do you manage sales? Incentives are also an important issue, and here we use simulation models as well as conjoint analysis in some cases. For example, you might carry out a conjoint analysis of the sales staff, presenting them with alternative incentive systems and asking which they prefer. Expert opinions are also very important.

We don't use these quantitative models to measure advertising efficiency very often, but that may be partly because we specialize more in products, prices and sales.

MIR: *Why does distribution rarely feature in decision support models or the brief for consultants?*

SIMON: Because distribution – for example, of cars or pharmaceuticals – is more fixed and provides less leeway for optimization. It's a different matter for the direct sales companies we work with, where distribution itself is a central element, perhaps the most important, and selecting and assessing potential customers and managing sales staff and distributors are all crucial.

MIR: *What's the role of creativity in this context? Is there any scope for it in marketing intelligence?*

SIMON: Creativity and marketing intelligence are completely intertwined, because the basis of everything is the value that you deliver to customers, and it takes creativity to create value. There are two facets to this. One is what you're objectively offering with your product or service, and the other is how you communicate and position it.

New pharmaceuticals are a very important area for us – I mean genuine, major innovations. It's always a big decision whether to focus more on the drug's primary effect, or on its safety and absence of side effects, and you have to talk about how you take it, and the dosage. We check these value-to-customer aspects extremely carefully, because the price must always reflect the value to the customer. Value is the key aspect of pricing.

MIR: *But isn't this more in qualitative terms?*

SIMON: No, it also applies quantitatively. If you use conjoint analysis, all of this is quantified.

MIR: *But if you're going to define specific features, you need to know which are relevant.*

SIMON: Of course you need a creative approach when you're communicating the benefits of the product and deciding which to focus on. There's a lot of need for dual creativity in high-tech sectors such as software, hardware and telecoms – by dual creativity I mean producing innovations and then communicating them cleverly.

MIR: *People in marketing are increasingly using the term 'marketing intelligence' rather than 'market research'. In your opinion, what does marketing intelligence mean in practice?*

SIMON: Compared with intelligence in terms of obtaining information and interpreting data, in other words traditional market research, I'd interpret this term more widely and say that marketing intelligence means having the broadest and deepest possible understanding of consumers, the benefits you can give them as a company, and what they think of this. In my experience, we have a huge amount of catching up to do in terms of marketing intelligence.

MIR: *So it's not just a coincidence that businesses now want to know so much more about their customers?*

SIMON: No, it most certainly isn't a coincidence. On the contrary, it's the central issue.

MIR: *We're inundated with knowledge, but we don't know what it all means.*

SIMON: Yes. And the problem is much more serious for large companies than for SMEs. Why? Because large companies are much more distanced from their customers. I've found that with the little-known but highly successful businesses I call hidden champions, 25 to 50 percent of staff have regular customer contact, compared to between 5 and 10 percent for large companies. This means that 90 to 95 percent don't talk to their customers on a frequent basis, and it's especially true of staff in R&D and along the supply chain. So lack of customer insight is a major issue for big companies.

MIR: *They don't know enough about what their customers are like and how they think?*

SIMON: No. We worked with a major tire manufacturer once, and – talking of creativity – we decided to launch a range of tires which were differentiated on the basis of the time it took to deliver them. The ability to deliver is a key issue in selling tires, especially during the periods when drivers switch from summer to winter tires and vice versa. Dealerships don't want to stockpile; they want to obtain the goods instantly when they need them.

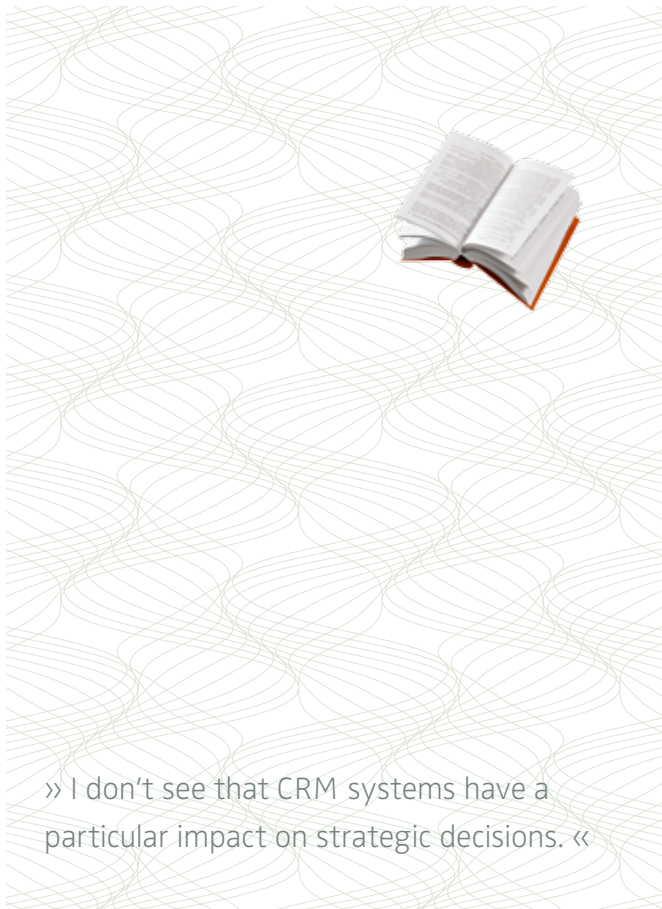
So we turned one product into three different products. Type X53 is now available as X533, X537 and X5314. "3" indicates three days'



delivery time and the price of this tire is higher than that of the X537, which has a delivery time of seven days. This in turn is more expensive than the X5314, which is supplied within fourteen days. The difference in prices reflects customer preferences in terms of delivery times. From the point of view of the company's logistics and supply chain management, this was a completely new approach. For the first time, these departments were not just processing units, but became decisive in generating value. And this value has now been quantified for the first time. Of course, dealerships still negotiate discounts, but they do it based on the list prices of type 3, type 7 and type 14.

MIR: *Generally speaking, insight is associated more with qualitative market research – studio and group discussions and depth interviews. Is this how it should be? Or can insight also be obtained from traditional cross-sectional business management analysis and standardized surveys?*

SIMON: Both are relevant. Purely qualitative information is not helpful, because decisions always need to be quantitative. You have to decide how much to spend, how much of the sales force budget to add and how many campaigns to implement, and then determine the price on this basis. This means that, ultimately, your decisions always need to have a quantitative dimension. Of course, you might have to choose between visual A and visual B in your advertising, which is obviously not quantitative, but even here you need a quantitative assessment of the effect.



» I don't see that CRM systems have a particular impact on strategic decisions. «

I was talking to a car manufacturer yesterday, and he told me that what he was ultimately interested in was the end result, so he could plan his production capacity and other things accordingly. The methods used along the way, both qualitative and quantitative, were of secondary importance to him, and he said that in that respect, he had to rely on us getting it right.

However, at the same time he did expect us to use all the tools we had access to. In his particular case, we implemented focus groups as well as analyzing the actual market in terms of its response to certain situations. We didn't use an econometric approach; we simply used the tools of the trade, like conjoint-style surveys and car clinics. He expected us to include all these methods. This is customer insight – assessing the situation, using different methods and approaches to establish what customers think, how they respond and how they view product benefits.

MIR: *Why are so many companies using consultants rather than their own market researchers, assuming they still have any? How did this decline in in-house market research come about?*

SIMON: Well, even major companies no longer have staff with this specialist expertise, and there are several reasons for this. Firstly, good people can develop their careers in big companies. I'll give you an example. Twelve years ago, we did a large-scale project for Daimler and had a team of their top people on board, outstanding people. When we worked with them two years later, they'd moved. One had gone to the US, another had become a line manager, and so on. Of course, they were all keen to move on rather than staying in the same department. In a consultancy firm, people are more likely to stay in specific jobs, because they represent the firm's core competence.

Another reason is that even large companies that still maintain big market research departments still want to know what's happening in other companies. They want to learn from our experience in other sectors and companies and see the benchmarks. Obviously, an in-house department can't provide this information.

MIR: *Could we go even further and say that marketing intelligence has to rely on external professionals and input, if nothing else because it offers economies of scale and wide-ranging experience?*

SIMON: Probably also because external companies have greater staff mobility. We've hired around 100 people each year for several years, and this brings new knowledge from universities, research and doctoral theses into our company. A manufacturer can't generate such a big influx of new and specialist expertise.

MIR: *Marketing decision makers take pride in the concepts of customer and brand value, because they're ways of proving that marketing impacts shareholder value. Is this pure fantasy, or is it true?*

SIMON: Well, if you look at the situation today, it's wishful thinking rather than reality. It's not too common to see customer and brand value quantified and translated into shareholder value, and in practice, this kind of thinking is not really quantitative. This is partly due to the availability of data, and also to the extent to which pressure can be put on things like loyalty ratios. I would say it's reflected most clearly when estimating customer acquisition costs and budgets, where you can determine the value of your customers and thus how much you can spend on each one.

This in turn is most pronounced in sectors where individual customer data is available and the customer's history can be traced, such as telecommunications, airlines, insurance companies, banks and other service providers – in other words, companies that know the value of their customers. Interestingly enough, B-to-B marketing has essentially always had this. However, it's rarely had the analytical capabilities required to fully exploit this data.

MIR: *This leads us neatly on to CRM systems, which generate customer value data and are designed to provide information about the relevant driving forces. What's your opinion of these systems?*

SIMON: In practice, except for the cases I mentioned, I don't see that CRM systems have a particular impact on strategic decisions. From my

point of view, they continue to be geared more toward operational sales management and direct mailing campaigns. In terms of how to build a customer base and whether you should dump certain customers because they're not profitable, I believe CRM systems have little influence at the strategic level.

MIR: *Some tools don't necessarily have to be used for strategic purposes. There are plenty of operational decisions where they can achieve significant cost savings.*

SIMON: Of course, nobody should belittle the achievements of operational management. But there's one more thing which I believe is important in connection with CRM systems, and which comes up frequently in our discussions with clients, especially in the car industry. It's the need to set appropriate limits for your analysis, and to focus on the relevant target group, which is something that's often completely neglected in market research.

Market researchers tend to home in on representativeness. For example, they'll try to map out the market representatively, whereas we'll often start with a simpler question, such as "Would you, as a customer, consider buying an Opel?" Some people will say no, although in terms of representative aspects such as purchasing power, they'd be in the target group. There's often a dispute as to whether such customers who express specific preferences and dislikes should be included in the analysis at all. We say no. You can't overcome such preferences by modifying a product or a price, nor through a mailshot.

Take this example: when Mercedes launched the A series in 1998, it had a polarizing effect. Twenty-five percent of the people interviewed said they liked it, and 75 percent didn't. First, we conducted an extensive telephone survey, simply asking respondents whether they'd heard of the A series and whether they'd buy it. The 75 percent who said that they wouldn't were excluded from the in-depth survey on the basis of follow-on considerations. Although our sample was no longer representative, it hit the mark because we focused on people who did like the model. The others were of no strategic interest.

MIR: *This is also reflected in the development of conjoint measurement, where choice-based conjoint options are increasingly used as well as the limit-card method. This raises the methodological question of whether conjoint analysis, which your company uses extensively, really is reliable enough. As you're no doubt aware, scientific validity studies have shown that the forecasting accuracy of conjoint analysis is not that great. So why is it used so frequently?*

SIMON: Well, in my opinion, selecting respondents is just as important as the actual intrinsic methodology you use, be it conjoint analysis or another method. For example, if you'd said of the Mercedes A series: "Yes, this is a mass-market car that will compete with the VW Golf and all sorts of mass production models, so let's conduct a representative survey in this segment," you'd have been way off the mark.

MIR: *But the sales forecast did assume that it related only to a section of the market. So it wasn't applied blindly, but...*

SIMON: No, there was no blind application of a standard model. Corrective adjustments were made in line with the actual market, and these were then included in the simulation.

MIR: *Are there any other new methodologies in market research which are of particular interest to marketing consultancy, and which are accepted in practice? For example, Bayes models with hierarchical dependency analysis, diffusion models and logit models, in which qualitative variables are also modeled in some dependencies?*

SIMON: Well, things like logit models and Bayes are likely to be more widely used. We use them ourselves occasionally, but alongside others. And as far as diffusion models are concerned, I'll stick to my opinion. The problem is that you don't really have a database at the outset, so if you calibrate the model on the basis of a test market or the first few months, the uncertainty is simply too great. I prefer to make subjective projections based on expert opinions and direct surveys.

Another method which is very important is Van Westendorp's price sensitivity meter. This is one we use a lot, always to supplement other systems, because it doesn't provide quantitative data on the price-demand function, but it does help when you're evaluating results.

MIR: *What about the future of cluster analysis? Do you use latent class analysis with probabilistic clusters, for example?*

SIMON: Not as far as I'm aware. However, segmentation is very important, although the key issue is not whether you could apply an even more sophisticated segmentation method. The approach is rather more pragmatic, and involves simulating the various multivariate building blocks using cluster or discriminant analysis and similar methods. And there's probably a certain amount of time lag between new methods being developed at universities and actually being applied.

» Selecting respondents is just as important as the actual intrinsic methodology you use, be it conjoint analysis or another method. «

» Price cuts, hoping this will help to maintain volume, is a complete illusion because all competitors follow suit, so both prices and volumes are low – the worst of both worlds. «

MIR: *Let's talk just a little more about market segmentation. Isn't this becoming more and more complex in markets where any description of consumer behavior has to be truly multidimensional if it's to be accurate?*

SIMON: The market has certainly become more differentiated, but this is partly because it's grown so much. Take the global automotive industry, which is making almost 80 million cars a year. Ten years ago the figure was only 40 million, so even if you address a very small segment of this market, in absolute terms it's much larger than before, so it's worth carrying out this analysis. It's precisely the fact that markets have become more fragmented and differentiated that makes this analysis all the more important.

For example, 10 million SUVs are made each year; twenty years ago, this segment hardly even existed, and only park rangers used them. Another 10 million are economy cars like the Tata Nano and the Renault Dacia, and this number is forecast to rise to 27 million by 2015. We need to understand these segments in detail: for example, why is the ultra-low price segment growing twice as fast as the automotive market overall?

MIR: *Let's end by talking about the coming months and years. How can marketing intelligence help to deal with the current state of the economy, and what demands will be made of it? Will this also be a problem for market research?*

SIMON: In a recession, companies often respond by cutting all their costs. I think that's a serious mistake, because this recession is so

extreme that cost savings alone will not save them. This is a revenue crisis, not a cost crisis. If sales are down by 30 percent and you achieve cost savings of 15 percent, this is still not good enough. This is where marketing expertise should be used. Reducing the supply of products is a big issue, for example, both for individual companies and sectors as a whole; the demand curve is what counts, and if you want to maintain reasonably stable prices, you need to reduce supply. As a rule, this is much better than accepting a decline in prices.

Companies tend to do the exact opposite. They cut prices, hoping this will help them maintain volume, which is a complete illusion because all their competitors follow suit, so both prices and volumes are low – the worst of both worlds. They need to exploit every opportunity to realize additional sales, for example by raising price parameters, to which hardly any attention is paid, and promoting service.

Service has been neglected in recent years because everyone has had production bottlenecks. If a sales organization is working below capacity, it should try to include third-party products. We've just implemented this approach with two well-known confectionery manufacturers, who began selling each other's products. As you can see, there are plenty of opportunities on the marketing and sales front that companies can use to prevent a further decline in sales volume. This is a key issue in the current crisis.

MIR: *Are there any other factors which we haven't mentioned but you think marketing intelligence experts should be taking notice of?*

SIMON: Yes, globalization. Globalization is very important to the German economy, perhaps even the most important issue. So far, we've been very successful. Our exports – I was in Russia and China recently – exceed the gross national product of Russia. Keeping track of numerous and increasingly complex markets is a huge challenge, which most firms have still to master. In this respect, there's an incredible amount of catching up to do. •

{Deutsche Zusammenfassung}

NEUE PSYCHOLOGISCHE ERKENNTNISSE ZUM PHÄNOMEN DES KAUFRAUSCHS

Ravi Dhar, Joel Huber und Uzma Khan

Der Handel setzt gezielt Marketinginstrumente wie bspw. Sonderpreisaktionen ein, um Konsumenten zur Kaufentscheidung zu bewegen. Mindestens ebenso wichtig wie das Zustandekommen eines Erstkaufs ist es jedoch für Händler, den Kunden auch nach dem Erstkauf zu weiteren Kaufentscheidungen zu bewegen. Tatsächlich zeigen Studien zu Impulskäufen, dass Konsumenten häufig wesentlich mehr Produkte kaufen, als sie vor dem Einkauf geplant haben. Jedoch verlassen viele Kunden die Einkaufsstätte auch, ohne weitere Produkte neben dem ursprünglich intendierten Produkt zu erwerben. Die traditionelle Annahme des nutzenmaximierenden Konsumenten vermag allerdings nicht zu erklären, unter welchen Umständen Konsumenten zur einen oder zur anderen Verhaltensweise neigen.

Wie Dhar/Huber/Khan in ihrem Beitrag zeigen, ist das Kaufverhalten von Konsumenten davon abhängig, ob sie entweder eher bewertungs- oder eher handlungsorientiert eingestellt sind. Eine eher bewertende Haltung geht mit dem Abwägen zwischen Vor- und Nachteilen eines Kaufs einher, während eine eher handlungsorientierte Haltung auf den Kaufakt an sich fokussiert. Ein Kaufrausch entsteht genau dann, wenn die Einstellung des Konsumenten vom einen in den anderen Zustand übergeht. Dieses Phänomen wurde in einer Reihe von Experimenten untersucht und empirisch bestätigt.

Die Autoren zeigen, dass die Attraktivität des Erstkaufs einen Einfluss auf den Kauf eines nachfolgenden Produktangebots hat. Sie stellten eine Kaufsituation unter Laborbedingungen dar, bei der die Teilnehmer einen gewissen Geldbetrag für Einkäufe zur Verfügung hatten. Untersuchungsteilnehmer, denen beim Erstkauf ein für sie besonders attraktives Produkt offeriert wurde, kauften mit höherer Wahrscheinlichkeit ein weiteres Produkt, das in keinerlei Zusammenhang zum ersten Produkt stand. Offensichtlich löste der Erstkauf bei diesen Konsumenten eine Art Kaufrausch aus, der sie zu einem weiteren Kaufakt antrieb.

Um weiter zu ergründen, ob die Wahrscheinlichkeit eines Folgekaufs wirklich auf eine veränderte Einstellung zurückzuführen ist, führten die Autoren ein weiteres Experiment durch. Hierbei erhielten alle Probanden beim Erstkauf dasselbe Produkt angeboten, wobei die erste

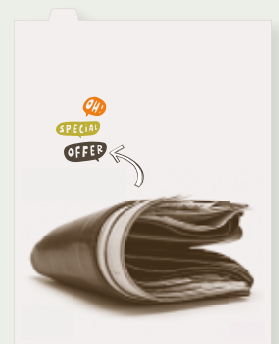
Gruppe für das Produkt bezahlte, während die zweite Gruppe das Produkt als Geschenk erhielt. Eine dritte Gruppe erhielt weder die Kaufgelegenheit noch das Geschenk. Danach wurde allen Versuchsteilnehmern ein weiteres Produkt zum Kauf angeboten. Dabei zeigte sich, dass Untersuchungsteilnehmer, die das Geschenk erhalten hatten, mit einer geringeren Wahrscheinlichkeit die nachfolgende Kaufgelegenheit wahrnahmen. Insbesondere unterschieden sich diese Untersuchungsteilnehmer nicht von der Gruppe, die weder die anfängliche Kaufgelegenheit hatten noch das Geschenk erhielten. Offensichtlich führt nicht die Attraktivität eines Erstkaufs zur Entwicklung des affektiven Zustands der Kauflust, sondern die Kaufentscheidung an sich zu einer veränderten Einstellung hin zur Handlungsorientierung.

Darüber hinaus zeigen die Autoren in weiteren Untersuchungen, dass der Kaufrausch von Konsumenten unterbrochen werden kann. Dies ist insbesondere dann der Fall, wenn die Aufmerksamkeit des Konsumenten auf finanzielle Ressourcen gelenkt wird. Beispielsweise erzeugt ein Rabatt beim zuerst gekauften Produkt einen deutlichen Unterschied zum nachfolgend gekauften Produkt, wenn dieses nicht ebenfalls rabattiert ist. Dann nehmen Konsumenten eine bewertungsorientierte, abwägende Haltung ein und zeigen ein Verhalten, das nicht mit den beschriebenen Phänomenen korrespondiert.

Die Herausforderung für das Marketing besteht in der Erzeugung einer dauerhaften Kauflaune. Geschenke sind als Kaufanreize offensichtlich nur bedingt geeignet, auch Rabatte scheinen nur begrenzt wirksam. Kaufanreize sollten so beschaffen sein, dass die wahrgenommene Attraktivität von Produkten erhöht wird, diese tatsächlich gekauft werden und dabei keine Fokussierung auf finanzielle Ressourcen stattfindet. Vor diesem Hintergrund sind Bonussysteme für Unternehmen besonders attraktiv, da sie alle aufgeführten Bedingungen zur Erzeugung einer Handlungsorientierung bei Kaufentscheidungen zu erfüllen scheinen. •

Den ausführlichen Artikel in englischer Sprache finden Sie in diesem Magazin auf Seite ...

... 8.



{Deutsche Zusammenfassung}

DIE STEUERUNG DER TARIFWAHL VON DIENSTLEISTUNGSKUNDEN. WAS TUN, WENN KUNDEN ZU VIEL ZAHLEN?

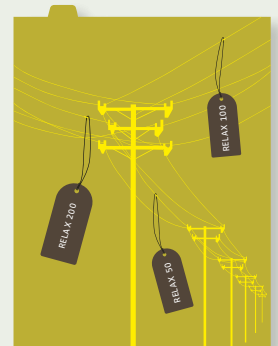
Anja Lambrecht und Bernd Skiera

Konsumenten können für viele Dienstleistungen, insbesondere im Telekommunikationsbereich, zwischen Pauschaltarifen („Flatrates“) und Tarifen mit nutzungsabhängiger Abrechnung wählen. Eigentlich sollten Konsumenten immer den Tarif wählen, in dem sie für die gewählte Nutzungsmenge den geringsten Rechnungsbetrag zahlen. Wir zeigen in diesem Beitrag, dass häufig ein „Flatrate-Bias“ vorliegt, also Konsumenten Pauschaltarife („Flatrates“) den nutzungsabhängigen Tarifen vorziehen, selbst wenn der Rechnungsbetrag des Pauschaltarifs höher ist. Dafür sind Versicherungs-, Taxameter- und Überschätzungseffekte verantwortlich. Der Versicherungseffekt garantiert den Konsumenten einen konstanten monatlichen Rechnungsbetrag und versichert die Konsumenten damit gegen monatliche Schwankungen im Rechnungsbetrag. Der Taxameterereffekt besagt, dass die Trennung des Zeitpunkts der Zahlung von dem des Konsums dazu führt, dass Konsumenten die Dienstleistung unbeschwerter genießen können, weil diese ja bereits bezahlt. Beide Effekte führen dazu, dass Konsumenten selbst bei gleichen Rechnungsbeträgen einen höheren Nutzen für den Pauschaltarif als für einen nutzungsabhängigen Tarif haben. Der Überschätzungseffekt dagegen besagt, dass Konsumenten schlichtweg ihre Nachfrage nach der Dienstleistung überschätzen und damit einen kognitiven Fehler begehen. Weniger häufig liegt dagegen ein „Pay-per-Use-Bias“ vor, also die Präferenz für einen nutzungsabhängigen Tarif, obwohl der Pauschaltarif günstiger wäre.

Sowohl der „Flatrate-Bias“ als auch der „Pay-per-Use-Bias“ führen dazu, dass Konsumenten mehr als notwendig für einen Tarif bezahlen, was kurzfristig zu einer Steigerung der Gewinne führt. Wir zeigen aber, dass langfristig Unternehmen von Konsumenten mit einem „Pay-per-Use-Bias“ nicht profitieren, da ein solcher Bias zu einem höheren Kündigungsverhalten führt. Dagegen unterscheidet sich das Kündigungsverhalten von Konsumenten mit einem „Flatrate-Bias“ kaum von dem Verhalten anderer Konsumenten. Dies scheint damit zusammenzuhängen, dass Pauschaltarife durch die Trennung von Konsum- und Zahlungszeitpunkt und den monatlich konstanten Rechnungsbeträgen den Konsu-

menten zusätzlichen Nutzen stiften. Unternehmen sind daher gut beraten, vor allem Konsumenten mit einem „Pay-per-Use-Bias“ auf für sie günstigere Tarife hinzuweisen. •

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Den ausführlichen Artikel in englischer Sprache finden Sie in diesem Magazin auf Seite ...



... 16.

{Deutsche Zusammenfassung}

WIE UNTERNEHMEN DEN ERFOLG IHRER INVESTITIONEN IN DAS BEZIEHUNGSMARKETING MESSEN KÖNNEN

Robert Palmatier, Srinath Gopalakrishna und Mark Houston

Relationship Marketing hat innerhalb der letzten Jahre eine zunehmende Beachtung im Marketing gefunden, da erkannt wurde, dass der Aufbau von Geschäftsbeziehungen ökonomisch vorteilhaft ist. Allerdings wurde dem B2B-Bereich bei dieser Frage bislang keine vergleichbare Aufmerksamkeit gewidmet. Vor allem wurde bis jetzt die Frage noch nicht abschließend beantwortet, wie effektiv Investitionen in den Aufbau eines umfassenden Relationship Marketings sind. Im vorliegenden Artikel wird der kundenspezifische Ertrag der Relationship Marketing-Maßnahmen im B2B-Bereich untersucht. Dabei werden drei Maßnahmenkategorien unterschieden: finanzielle, soziale und strukturelle Maßnahmen. Der erste Typ beinhaltet Preisnachlässe, kostenlose Produkte und andere monetäre Leistungen, die Kundenloyalität belohnen. Zu den sozialen Maßnahmen zählen etwa Geschäftsessen mit Kunden oder personalisierte Informationen. Die Kategorie der strukturellen Maßnahmen zielt schließlich darauf ab, die Produktivität und/oder die Effizienz bei den Kunden zu erhöhen, indem Investitionen getätigt werden, die die Kunden selber nicht vornehmen würden, wie z. B. kundenindividuelle Auftragsabwicklungssysteme. Darüber hinaus gibt es Faktoren, die den Ertrag der verschiedenen Arten von Investitionen in das Relationship Marketing beeinflussen können. Diese Faktoren können in den Charakteristika der B2B-Kunden, den Vertriebsmitarbeitern und in den Merkmalen des anbietenden Unternehmens liegen.

Um die Fragen zu beantworten, wie die verschiedenen Relationship Marketing-Maßnahmen den kundenspezifischen Ertrag beeinflussen und welche Faktoren auf diesen Zusammenhang einwirken, wurde eine empirische Untersuchung durchgeführt, bei der 313 Geschäftskunden sowie 143 diese Kunden betreuende Vertriebsmitarbeiter von 34 Unternehmen befragt wurden.

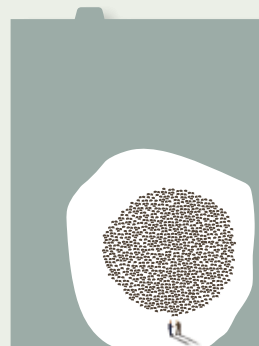
Die Ergebnisse der empirischen Untersuchung weisen darauf hin, dass Investitionen in strukturelle Relationship Marketing-Maßnahmen einen signifikanten positiven direkten Einfluss auf den kundenspezifischen Ertrag haben. Allerdings führen die Maßnahmen vor allem bei den Kunden zu höheren Erträgen, die eine große Interaktionshäufigkeit mit dem Anbieter aufweisen. Dies lässt sich damit begründen, dass die Motivation der Kunden, eine Beziehung mit dem Unternehmen aufzubauen und

zu erhalten, durch die hohe Interaktionshäufigkeit steigt, was zu höheren Erträgen der getätigten Investitionen führt. Investitionen in soziale Maßnahmen beeinflussen den kundenspezifischen Ertrag ebenfalls signifikant positiv. Der Einfluss dieser Maßnahmenkategorie ist sogar dreimal so hoch im Vergleich zum Einfluss struktureller Maßnahmen. Der direkte Zusammenhang zwischen finanziellen Maßnahmen und dem kundenspezifischen Ertrag ist dagegen nicht signifikant.

Auch die Analyse von beeinflussenden Faktoren führt zu interessanten Ergebnissen: Auf der Kundenebene wirken sich der kundenspezifische Ertrag aus dem Vorjahr, die Wachstumsrate des Kunden sowie das Kundenpotenzial positiv auf den Ertrag aus. Bei Vertriebsmitarbeitern beeinflusst ihre Erfahrung den kundenspezifischen Ertrag positiv, denn erfahrene Vertriebsmitarbeiter identifizieren und ergreifen bessere Absatzmöglichkeiten, wodurch Relationship Marketing-Maßnahmen gegenüber den Kunden erfolgreicher wirken. Wider Erwarten hat die Entlohnung von Vertriebsmitarbeitern allerdings einen negativen Einfluss auf den kundenspezifischen Ertrag. Dies kann damit begründet werden, dass gut verdienende Mitarbeiter weniger aggressiv verkaufen, nachdem sie die Obergrenze bei ihrem Verdienst erreicht haben. Auf der Unternehmensebene wirken sich Werbeausgaben positiv auf den kundenspezifischen Ertrag aus. •

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{Deutsche Zusammenfassung}

WIE MAN MIT DER DEA DIE EFFIZIENZ DER MARKENWERBUNG DURCHLEUCHTEN KANN

Joachim Büschken

Die Effizienz von Werbung ist eine alte Fragestellung im Marketing. Mit der Data Envelopment Analysis (DEA) gibt es ein Verfahren, mit der die Effizienz klassischer Werbung auf der Ebene von Marken ermittelt werden kann. Das Verfahren basiert darauf, die verschiedenen Inputs (hier: Media-Spendings) und Outputs (hier: Effekte entlang der AIDA-Wirkungskette) so zu gewichten, dass die Output-Input-Relation einer jeden Marke im Verhältnis zu den relevanten Wettbewerbern maximiert wird. Im Rahmen dieser „Best Case“-Rechnung wird jede Marke einem Benchmarking unterzogen. Unterschiedliche DEA-Modelle können dabei unterschiedlichen Erkenntnisinteressen Rechnung tragen.

Das Verfahren wird beispielhaft auf die Markenkommunikation im deutschen Automobilmarkt angewandt. Dabei kann auf Daten der Kommunikationsanalyse zurückgegriffen werden, die zur Wirkungsmessung herangezogen werden. Es zeigt sich zunächst, dass sich Ineffizienz in der Werbung auf wenige Marken konzentriert. Im Durchschnitt ist das Budget einer Marke um 8 % zu hoch. Die Spanne reicht dabei von 0 % (VW) bis zu 28 % (Mitsubishi). Vor allem Marken mit hohem Bekanntheitsgrad und hohen Sympathiewerten investieren zu viel in Kommunikation. Effizienz in der Werbung zeigt sich hingegen positiv korreliert mit dem Produktportfolio einer Marke und der Qualitäts- und Preiswahrnehmung der Kunden. Marken mit kleinem Portfolio (z. B. Land Rover) sollten sich auf geringere Effizienz in der Werbung einstellen. Bessere Qualitäts- und Preiswahrnehmung geht mit höherer Effizienz in der Werbung einher. Die beispielhaften Ergebnisse zeigen, dass das Verfahren der DEA vielfältige Ansatzpunkte für eine bessere Allokation der Investitionen in Werbung bietet. •

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{Deutsche Zusammenfassung}

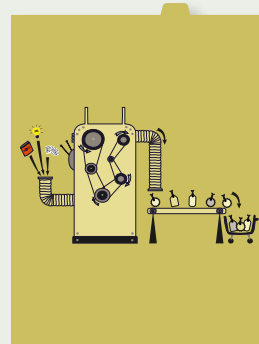
DYNAMISCHES PRICING IM DIY-HANDEL – EIN FALLBEISPIEL AUS ÖSTERREICH

Martin Natter, Thomas Reutterer und Andreas Mild

In diesem Beitrag wird ein Entscheidungsunterstützungssystem zur dynamischen Preis- und Promotionplanung vorgestellt, das beim österreichischen DIY-Händler bauMax entwickelt und implementiert wurde. Das auf Wochendaten basierende Nachfragemodell berücksichtigt für jeden Artikel seine in der Vergangenheit gesetzten Preise, interne Referenzpreise, Saisonalität, Artikelverfügbarkeit, Flugblätter und Rabatte. Es werden auch Verbundeffekte quantifiziert und die daraus abgeleitete Gewinnsteigerung in das Preisoptimierungsmodell integriert. Aufgrund der praktischen Anforderungen wurde eine Zielfunktion verwendet, die die Strategie des Handelsunternehmens berücksichtigt.

Acht Preisrunden mit Tausenden unterschiedlichen Artikeln wurden zur Evaluierung und kontinuierlichen Verbesserung des Systems herangezogen. Unter Anwendung unterschiedlicher Vergleichswerte konnte ein positiver Einfluss sowohl auf den Gewinn als auch auf den Umsatz gezeigt werden. Inzwischen befindet sich das teilweise automatisiert arbeitende Pricing-System bei bauMax konzernweit im Einsatz und wird vom zuständigen Management als wertvolle Entscheidungsgrundlage für Preisentscheidungen geschätzt. •

Den ausführlichen Artikel in englischer Sprache finden Sie in diesem Magazin auf Seite ...



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NEXT ISSUE PREVIEW

Fresh Ideas

THEMES

Does customer satisfaction lead to increased firm value? The Long-Term Stock Market Valuation of Customer Satisfaction

Lerzan Aksoy, Bruce Cooil, Christopher Groening, Timothy L. Keiningham, Atakan Yalcin

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Preparing for the Adoption of the New Arrival
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When 2+2 Is Not the Same as 1+3: Understanding Customer Reactions to Partitioned Prices

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Implementing Profitability Through A Customer Lifetime Value Management Framework – The IBM-Case

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Response styles across modes of data collection: Do consumers respond the same way in telephone, mail and online surveys?

Bert Weijters, Maggie Geuens, Niels Schillewaert

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Customer Equity Reporting

Thorsten Wiesel, Bernd Skiera, Julian Villanueva

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Should Firms Prioritize Their Customers?

Christian Homburg, Dirk Totzek, Mathias Droll



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