Information-driven marketing strategy

Received (in revised form); 28th February, 2002

D. M. Hanssens

is the Bud Knapp Professor of Marketing at the UCLA Anderson Graduate School of Management, where he has been on the faculty since 1977. He has served as the school's faculty chair, associate dean, and marketing area chair. Professor Hanssens' research focuses on strategic marketing problems, in particular marketing productivity, to which he applies his expertise in data-analytic methods, such as econometrics and time-series analysis. He has served as an area editor for *Marketing Science* and an associate editor for *Management Science*. His papers have appeared in the leading academic and professional journals in marketing, economics and statistics. The second edition of his book with Leonard Parsons and Randall Schultz, entitled *Market Response Models*, was published by Kluwer Academic in 2001. His consulting experience covers a range of strategic marketing problems, such as marketing resource allocation, product-line pricing, database marketing and new-product strategy. His approach emphasises the new opportunities for developing a sustained competitive advantage, offered by sophisticated market information and marketing intelligence. Professor Hanssens has conducted assignments for many well-known companies. He also serves on the advisory boards of the Deutsche Telekom and several entrepreneurial high-technology firms.

Keywords marketing strategy, customer, CRM, marketing productivity, market response, marketing database

Abstract As we begin this 21st century, an important characteristic of successful businesses is emerging: they are *customer oriented*. Indeed, with the globalisation of markets and the ever improving information age, competition is increasing and customers enjoy more elaborate choices and are better informed about them, be it in pharmaceuticals, life insurance or hospital supplies. We can state that *customer orientation has become the winning business paradigm* of our era, and it should remain so for some time to come. This paper considers the lessons that can be learned from high-performance companies in the areas of e-commerce, global marketing and competitive advantage.

INFORMATION AS A STRATEGIC ASSET

Making your company customer oriented is a major challenge for top management, as it involves an attitude change for all employees of the firm, not just the marketing department. In essence, the customer should be viewed and treated as a strategic asset of the firm. While this idea is not new (Peter Drucker wrote in the 1950s that the sole purpose of a business is to create a satisfied customer), modern information and communications technology can now become a powerful driver of this process, by carefully recording, documenting and tracking

customer transactions and characteristics, and using that information strategically. Indeed, Merck's US\$6 billion acquisition of the pharmaceutical mail order firm Medco was an important signal of the strategic importance of customer databases. As a business, Medco produced only about US\$80 million of annual revenue at the time of the acquisition; hardly worth its US\$6 billion price tag. The Merck-Medco database however, is a gold mine of accurate and timely information about prescribing physicians and their patients. It can make the salesforce more effective by allowing tailor-made sales presentations based on doctors' unique prescription

Professor D. M. Hanssens The Anderson School at UCLA, 110 Westwood Plaza, Suite B417, Los Angeles, CA 90095-1481. USA.

Tel: +1 310 825 4497; Fax: +1 310 206 7422; E-mall: dominique.hanssens@ anderson.ucla.edu histories. It can diagnose emerging trends in the demand levels of different clinical categories and it can invent new ways of segmenting customers and targeting the right products to them. In a nutshell, it allows Merck to design and execute highly information intensive marketing strategies that simultaneously satisfy customers' needs and reduce marketing costs.

This trend is by no means limited to pharmaceuticals, or for that matter, to Fortune 500 companies. In retailing, for example, the impressive growth of Walmart is largely due to the quality of its inventory tracking and sales forecasting systems. Not only do these systems allow Walmart to keep its shelves stocked 'just in time' and gain bargaining power over its suppliers knowledge is power - they benefit customers through attractive prices and virtually guaranteed availability of every SKU they are shopping for. In banking, new competitors such as Nations Bank have used information technology to acquire customers and make inroads in markets long dominated by the traditional banks. Niche players such as USAA in the insurance business have taken relationship marketing to new heights, by using customer databases intelligently to match insurance products with the ever changing needs of customers as they progress in their life-cycle.

Designing and managing a customer database can be expensive, and is usually more costly than the immediately obvious benefits it creates. As a strategic asset, well-managed systems can and should develop increasing returns to use over time. Take, for example, American Airlines' pioneering efforts in designing its Sabre customer reservation system. At first, Sabre enhanced operations efficiency for the airline and provided a more reliable level of service to the customer. As the transactions database grew, it became an unparalleled source of demand and price information that allowed the airline to price each seat on each flight 'just right'

and maximise its yield. Still later, the database became the backbone of a customer loyalty programme that helped protect the airline against customer attrition due to competitors' fare discounting. Eventually, the reservation system became the direct link between the passenger and the airline, and allowed the airline to 'own the customer'. As customer ownership shifted away from the distribution channel - mainly travel agencies - to the airlines, it is no surprise to observe that travel agencies' commission rates have been lowered, and that airlines take a more active role in the entire travel planning process, including hotel and rental-car arrangements. At the same time, this evolution has resulted in so-called marketing mergers (or virtual mergers) among smaller competitors, as a way of delivering network benefits to their customers that are competitive to those of large airlines. Such developments illustrate that information-based assets can actually deliver increasing-returns to use; exactly the opposite of the decreasing-returns to use observed with more traditional company assets, such as automobiles and production plants.

Naturally, the advent of customer information systems requires new managerial and human resource skills. How does an organisation that has prospered 'without customer data' suddenly adapt to managing 'with data'? Neither an ostrich policy ('ignore the data because it is too cumbersome and confusing') nor a Star Trek policy ('put the company on autopilot, based on data analysis') is likely to work. The challenge for managers is to base their strategic marketing decisions that combine valuable business intuition with the hard numbers that can now so easily be obtained.

MARKETING STRATEGY

Marketing strategy means setting out business direction and the allocation of

resources that create customer value. So ultimately it is about choosing value, providing value, and of course, communicating value to customers. That is, of course, a very generic definition that was true even before the information age. What makes its current application different is our ability to provide better understanding. So knowledge is power, so to speak, whereas in the past, power may have come from being first in the market or having the best relationships, or in some international marketing areas, possibly having the best inroads with governments or regulatory agencies. All this may have provided competitive advantage, and in many cases it still does. But the new asset that is emerging is the ability to understand and to be able to read the marketplace. That requires an appreciation of key market and marketing phenomena and how they should affect your decision-making.

While all parts of modern marketing strategy require the combined use of business intuition and numerical data, we will describe this principle in one important area: that of allocating resources to marketing efforts. No manager would dare commit millions of dollars of capital to a project without extensive analysis of its payback, net present value, and internal rate of return. Yet every day, companies invest millions of dollars in marketing resources - including advertising, promotion, discounts, and distribution without a fact-based understanding of the performance of their marketing investments in the past, or the dynamics of marketing success in the future. Instead, marketing budgets are typically determined by adjusting last year's budget and/or by making sales projections for next year and then allocating some percentage of these planned revenues to marketing spending.

Rules of thumb or 'a sense of the market', however, are no longer

sophisticated enough for making good marketing decisions, whether the issue is a new advertising strategy or a change in the marketing mix. Market-response models are a potent weapon for the marketing decision-maker, a tool that takes advantage of a company's growing body of market-based data, rigorous analytical techniques, and the power of information processing. As the name implies, this analytical tool uses a model to simulate the impact of marketing plans, competitive factors, and economic conditions. Ultimately, market response models help companies design strategies that result in improved marketing effectiveness and substantial cost savings. Market-response models also offer a potentially powerful 'side-effect': building market response models and using them to make critical marketing decisions can actually fuel teamwork and foster crossfunctional integration among groups and departments that don't often work together, even although they should.

ANALYTICAL MARKETING

Marketing has long suffered from a dearth of sophisticated analytical tools, especially when compared with most other management functions, despite the rapid increase in the sheer volume of marketing data available (mostly through increasingly sophisticated market research). For example, companies have tried to make the intuitive knowledge of marketing managers explicit by asking successive questions along the lines of 'What would happen to market share if we doubled the advertising budget? Cut it by 50 per cent?' and so on. The resulting relationship - the curve connecting the points of judgment is a crude, although effective way to predict the sales or market share impact of changes in the marketing mix. It is a simple way to quantify the subjectivity. that is inherent in most marketing decisions. Of course, the starting point is

still judgmental, based on managers' intuition and experience, as opposed to objective data.

A now classic case study on Syntex Laboratories illustrated the use of judgment-based market response models. This company had traditionally focused on specialty products for dermatologists and obstetricians. When its R&D developed promising products for the general practitioner and family practitioner segments, the existing company culture was slow in expanding and reallocating the sales force in order to maximize the newly found business opportunities. A sales-call response model was developed by an outside consultant. That model clearly demonstrated that the company's current salesforce sizing and allocation rules were suboptimal: the size was too small and the allocation put too much emphasis on the company's older brands. Syntex followed the recommendations of the sales-call response model and was able to substantially grow its business over the next few years, both in the newly acquired general-practitioner segments and in the company's mainstay specialty segments.

A second, more analytically rigorous approach is to 'field test' the impact of marketing decisions in controlled experiments across markets. Medical and pharmaceutical companies are already sophisticated in their use of controlled experiments for the purpose of assessing the health efficacy and safety of new products and procedures. A similar approach can be used to assess, for example, the impact of different marketing-mix executions, including advertising, sales calls, packaging and product bundling. While such field tests are effective at demonstrating the validity of a decision, they tend to be expensive and time-consuming to implement. Perhaps more important, controlled experiments generate 'single snapshot' results that may not enable a marketing

manager to develop an integrated knowledge base across the marketing mix Still, with the advent of broadband Internet and the expanded rule of direct marketing, field experiments are becomin faster and cheaper to execute, and their usage is expected to increase.

The third and most advanced form of analytical marketing is the development complete market response models, based on historical movements in market performance and the marketing mix. The can provide a new level of insight into marketing decision-making by turning existing data into strategic intelligence for marketing decisions.

PERFORMANCE-BASED DATA

The key to creating good market respons models is to begin with good data, which does not necessarily mean conventional market research data. While market research has become more sophisticated, i focuses on attitudinal information, ie it asks consumers to predict their own buying behaviour under different scenaric Market response models, on the other hand, rely on data about what customers actually do: real purchase behaviour. The patterns in these data are used to predict consumers' future purchases, which ultimately define the market performance of each competitor.

The data for market-response models can come from a variety of sources. Scanners, for example, have become virtually ubiquitous in grocery stores and other retail outlets, increasing productivit at the point of sale and helpful in managing inventory and other operational procedures. They also provide a potential gold mine of marketing data, and those retailing marketers who have learned the value of those data have discovered a potent competitive weapon.

CRM systems also provide detailed records of order information over time, along with a host of direct-marketing

activities, targeted at individual customers. This source of data is particularly useful in business-to-business marketing, which tends to focus on client acquisition, retention, up-sell and cross-sell. Other sources of response data come from companies' internal accounting (such as a history of weekly or monthly advertising expenditures), clickstream data from commercial websites and syndicated market-share and price information from third-party data providers such as IMS, Nielsen and Dataquest. Market response models seek to leverage these types of performance-based data, using computing power to analyse the complexities created by multiple products, price points, marketing efforts and competitive responses.

Consider the case of a financial services company. This bank had ambitious goals for its certificates of deposit (CDs) business in terms of market share and profitability, but faced a mandated decrease in its marketing budget. Complicating the exercise was a constantly changing cost of funds (which, of course, affected CD rates and profitability) and intense local market competition. Creating the right marketing strategy right out of the box was crucial.

The bank developed a market response model using historical data on prices, advertising, and customer deposit behaviour, to explain what drove customers (in terms of retention and new accounts) and to simulate the consequences of various pricing strategies. The model indicated the right place for the bank to be - the price point that represents the best tradeoff between profitability and market share. It also indicated which competitors - and which of their actions - were most damaging, as well as which competitors could safely be ignored. By building and applying a market response model, the bank boosted profitability by US\$17 million annually on its certificate of deposit product.

Another example involved a high-tech communications services provider enjoying strong product sales. The company predicated its marketing and advertising strategy on promotions and discounts, despite a clearly superior product in terms of features and benefits. A market response model, however, indicated that getting the best deal was not the paramount issue for customers. That insight led to the decision to avoid discounting and, instead, stress benefits in the company's advertising and communications strategy.

In this case, the company was very reluctant to tamper with a successful marketing campaign. The solution was to supplement the market response model with a controlled experiment to measure the impact of various advertising executions and spending levels on market performance. The control was a market, where nothing was altered. The experiment proved that the predictions of the market response model were accurate, and the company cut its advertising budget in half without sacrificing sales: a 100 per cent improvement in marketing productivity.

DATA CAN FUEL TEAMWORK

It is vital to understand that the success of market response models depends primarily on the underlying data; quality inputs are a necessary precondition to quality outputs. Fortunately, most companies have good data – they collect data every day on every transaction – although it remains a challenge to make that data accessible, to link various databases into a coherent whole, and to make it uniform.

But when that hurdle is cleared, market response models and today's high-powered information technology, make it relatively easy to turn data into a strategic asset. This kind of data is the raw material for market response models and, because it is performance-based and 'real world', it is not likely to get shelved with the rest of the market research studies.

. 2. William and a second in

There is a highly beneficial key sideeffect of tapping this kind of raw material
for market response models. It leads to
marketing teamwork. Too many
marketing functions are managed
independently, despite the growing body
of empirical knowledge that suggests the
team approach has real and lasting value.
It is now well established that product
development teams – composed of
scientists, engineers, manufacturing experts,
and marketing executives – can lead to
improved quality, lower costs, and a
decrease in time-to-market.

A similar phenomenon occurs when a company approaches marketing from a holistic, team-oriented approach, using representatives from sales, product management, advertising and promotion, distribution, and market research, for example. Importantly, using a company's core customer and product data as a resource platform for making marketing decisions actually fuels the team dynamic. It encourages fact-based decisions over political ones, leading to better decisions. And it encourages marketing executives to talk across their respective functions in search of the common - and usually greater - good. Teamwork is never easy,

but applying market response models can help.

Market response models represent an effective way to deal with information overload, turning data into insight and understanding. They offer a solid analytica framework from which to approach marketing strategy and decision-making, and represent a performance-based feedback mechanism, a source of continuous improvement within the marketing function. Ultimately, market response models give managers a basis for measurement – and, when you can measure something, you can manage it.

ACKNOWLEDGMENTS

This paper has benefited from discussions in the following publications:

Hanssens, D. M. and Loewe, P. (1994)
 'Taking the mystery out of marketing',
 Management Review, August.

Hanssens, D. M. (1996) 'Customer information: the new strategic asset', *Chief Executive*, May.

Hanssens, D. M., Parsons, L. J. and Schultz, R. L. (2001) Market Response Models: Econometric and Time Series Research, 2nd edn. Boston, Kluwer Academic.