

---

# Modeling Consumer Health Plan Choice Behavior To Improve Customer Value and Health Plan Market Share

**Roger Gates**

DSS RESEARCH AND DIGITALHEALTH.COM

**Carl McDaniel**

THE UNIVERSITY OF TEXAS AT ARLINGTON

**Karin Braunsberger**

ARKANSAS TECH UNIVERSITY

---

*The ability of health-care providers and insurers to survive in today's highly competitive market requires that they thoroughly understand marketplace needs and use that information to deliver true customer value. The objective of the present study is to illustrate how choice-based conjoint analysis can be used to create health plans that optimize value for consumers and market share for managed care organizations. The use of choice-based conjoint analysis takes the guesswork out of health plan design and promotion. By offering insight into consumer reactions to the range of plan feature choices, the research program presented in this article can help to increase consumer satisfaction while aiding health plans to reach their objectives as well. The elimination of crises and ad hoc decision making raises the effectiveness and efficiency of managed care programs. J BUSN RES 2000. 48.247-257. © 2000 Elsevier Science Inc. All rights reserved.*

The ability of health-care providers to survive in today's highly competitive market requires that they thoroughly understand the needs of consumers and then deliver true customer value; that is, managers must effectively use their resources to maximize the perceived value of their product offerings to target customers. Historically, health plans or health insurance programs were designed on the basis of the preconceived notions of medical professionals (Ellsbury and Montano, 1990). Satisfaction delivered by such plans was, therefore, a hit-or-miss proposition. Today, decision support systems play an increasingly important role in management's design of health plans for various consumer

groups (Forgionne, 1991). The present study supplements prior research by illustrating how choice-based conjoint analysis can be used by managers to create health plans that optimize value for the consumer and market share for the organization offering them.

## Background

During the last several decades, numerous developments have produced enormous changes in the health-care industry. First, health care is one of the fastest growing sectors in the service industry. As Folland, Goddman, and Stano (1993) point out, approximately 12.5% of all dollars spent on final goods and services are spent on health care. This is a significant increase from the estimated 8% spent on health care in 1976.

Second, a more relaxed regulatory environment combined with oversupply (Steiber, 1987) have led to sharply increased competitive pressures for health-care providers (Nelson and Goldstein, 1989). Competitive dynamism is not only evident in the increased number of physicians and hospitals, but also in the emergence of such alternative delivery systems as HMOs and walk-in clinics.

Third, consumers of health-care services have become more informed and sophisticated buyers of these services (Andaleeb, 1994; Nelson and Goldstein, 1989). In addition, customer expectations have grown as their knowledge regarding health-care services has expanded (Oliver, 1980). Thus, for a health-care coverage organization to take a pro-active stance in today's dynamic environment, managers must have knowledge regarding consumer reactions to alternative choices (Zeithaml and Zeithaml, 1984). Furthermore, research shows that managers of health-care organizations must continue to monitor

---

Address correspondence to: Dr. R. Gates, DSS Research, E# 101, 711 Lamar Boulevard, Arlington, TX 76011-3854, USA.

customer perceptions over time as the environment changes (Gilbert, Lumpkin, and Dant, 1992). If the environment is neglected, losses of market share and profitability will follow.

This focus on consumer perceptions and expectations by management is a fairly recent development in the health-care industry (Chakraborty, Ettenson, and Gaeth, 1994). In the past, employers offered health benefits to their employees, selecting both the health-care coverage and the provider of that coverage. Consequently, the marketing efforts of health-care coverage providers were usually limited to convincing employers of the desirability and superiority of their product. The sales model was very simple and focused almost entirely on selling the health-care coverage product to management decision makers in the employer organization. If the selling organization was successful in getting management to buy their product, then they were assured of being able to enroll 100% of the employees, because employers typically offered only a single health-care coverage program. Today, however, more and more employers provide their employees with multiple health-care coverage choices. Employees can exercise their purchasing power by the choices they make between competing plans (Rogers, 1995).

Increasingly, consumers are shifting their dollar from indemnity to managed care plans (Altman, 1987; Fein, 1986). In 1988, only 29% of the employed and insured population were enrolled in managed care plans. This percentage increased to over 50% in 1994 and is expected to continue to grow rapidly (Davis, Collins, Schoen, and Morris, 1995; Dimmitt, 1995). Thus, providers of health-care coverage are faced with a more complex marketing problem. Their role under the indemnity insurance system is basically restricted to being the payor. However, an organization offering managed care coverage must also manage the delivery system. Management of a managed care organization must also make their product's features (e.g., limited physician networks, access to specialists by referral only, limited hospital networks, and precertification before hospitalization) palatable to the enrollee (Dimmitt, 1995). Successful marketing efforts for these organizations depend on having better knowledge regarding consumer needs and wants in order to design a more desirable product for the target market (Case, 1989; Forgionne, 1985; Forgionne, 1991; Explosive Growth in Medicare, 1996; Weesner, 1990).

## Growing Importance of Marketing Research for Management Decision Making

The primary mechanism for managers to learn about consumer needs and to monitor their evolving perceptions of health-care coverage options is marketing research. Researchers have used a number of techniques in attempts to understand the health-care coverage choices made by consumers. One such

effort was the Employee Health Care Value Survey conducted on behalf of Xerox, GTE, and Digital Equipment Corp. during the fall of 1993 (Allen, Darling, McNeill, and Bastien, 1994). This survey was completed by 24,306 employees and was used to develop methods for evaluating corporate health-care benefit strategies. This study made it possible to compare health plans on more than 60 criteria. Another similar effort was undertaken by the Commonwealth Fund in 1994 (Davis, Collins, Schoen, and Morris, 1995). In this study, 3,000 adults were surveyed regarding their experiences choosing either indemnity or managed care plans and their satisfaction with those plans.

One approach to assessing perceptions is to have consumers rate individual plan attributes (Woodside, Nielsen, Walters, and Muller, 1988). Another approach has been to use open-ended questions that ask consumers why they chose a particular plan (Moustafa, Hopkins, and Klein, 1971). Unfortunately, these two approaches fail to capture comprehensively and realistically the bases that consumers use when making health-care coverage decisions. This is because asking consumers to evaluate health plan attributes in isolation from the many attributes that enter into the health care coverage decision is unrealistic. Research has shown that health insurance decisions are based on evaluating combinations of multiple attributes (France and Grover, 1992). Research has also shown that self-reports of attribute importance often provide poor measures of the true importance of those attributes in the consumer's actual decision process (Ettenson, Wagner, and Gaeth, 1988; Fishbein and Ajzen, 1975).

## Conjoint Choice Modeling

The limitations cited above have led managed care marketers to use more sophisticated marketing research techniques to improve their level of understanding of consumer health plan choice behavior. A technique that promises to deliver better decision-making insights for managers is choice-based conjoint analysis.

Conjoint analysis is a multivariate technique used specifically to understand how respondents develop preferences for products or services. It is based on the simple premise that consumers evaluate the value or utility of a product/service/idea (real or hypothetical) by combining the utilities they associate with each level of each attribute. It is unique among multivariate methods, because the researcher first constructs a set of hypothetical products or services by combining the possible attributes at various levels. These hypothetical products are then presented to respondents who provide *only* their over-all evaluations of the hypothetical products/services. Thus, the researcher asks the respondent to perform a very realistic task—choosing among a set of products. Respondents need not tell the researcher anything else, such as how important an attribute is or their evaluation of the product on a number of attribute ratings. Because the researcher constructs

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات