

Customer value impact of sales contests

Jason Garrett · Srinath Gopalakrishna

Received: 18 May 2009 / Accepted: 5 January 2010 / Published online: 2 February 2010
© Academy of Marketing Science 2010

Abstract Although firms spend more than \$26 billion annually on sales contests, no empirical research has investigated the effects of contests on individual customers. While some short-term firm effects of contests have been documented, the impact on long-term customer value has remained a matter of speculation. This research investigates the long-term customer impact of sales contests, by applying the customer value framework. We add to previous research that has used customer value of marketing programs by employing the acquired, retained, and add-on framework to segment customers based on their purchase history. We develop hypotheses drawing on theories in the buyer behavior, customer loyalty, and sales management domains. By disaggregating the overall customer value into initial and subsequent components, we demonstrate a greater long-term value per customer in the retained customer cohort and lower short-term and long-term value per customer among the two other cohorts (acquired and add-on customers). There is no adverse impact on other drivers of customer value such as customer churn and purchase frequency. While our study focuses on individual customer effects, we note the significantly higher volume of customers during the contest leads to a positive aggregate-level assessment. We conclude by discussing the implications of our findings for managers and researchers.

Keywords Sales contests · Customer loyalty · Customer value · Sales management · Incentives · Buyer behavior · Marketing programs

Senior corporate executives are increasingly asking marketing and sales managers to justify their expenditures (Albers 2002; Mantrala 2002). Because of the “softness” and short-term focus of many marketing performance metrics, accountability demands for marketing programs create anxiety among managers (Srivastava et al. 1999; Vence 2005). In order to meet such demands, detailed financial assessments of the customer base over extended time horizons have gained importance. The resulting overlap between the domains of marketing and finance has led to a stream of research investigating customer value (e.g., Berger et al. 2002; Blattberg and Deighton 1996; Reinartz and Kumar 2000) and the long-term impact of marketing programs (e.g., Lewis 2006; Rust et al. 2004). Existing research on the long-term impact of marketing programs has focused on *pull* marketing strategies (i.e., marketing efforts aimed directly at end consumers, such as price discounts offered to attract new subscribers to a magazine). By contrast, there is little research on the effects of *push* marketing efforts (i.e., programs directed toward the channel members, such as salespeople) and the extent to which these efforts influence customers and firm performance.

Academic researchers have called for a better understanding of the long-term impact of push marketing programs (Leigh and Marshall 2001; Murphy et al. 2004). Central issues discussed here include the intervening effect of the channel and the “pressure” push marketing programs impose on the channel member. While this pressure is seen as a key driver of short-term sales performance, its long-term effects are not as clear. Some observers believe this pressure causes salespeople to focus on short-term sales and neglect other important duties, such as customer service,

J. Garrett (✉)
Foster College of Business Administration, Bradley University,
407 Baker Hall,
Peoria, IL 61625, USA
e-mail: kjgarrett@bradley.edu

S. Gopalakrishna
Robert J. Trulaske, Sr. College of Business,
University of Missouri,
434 Cornell Hall,
Columbia, MO 65211, USA
e-mail: srinath@missouri.edu

leading to negative long-term consequences, including customer dissatisfaction and lower long-term value (Hampton 1970; Keenan 1994; Kohn 1993a). Others suggest that the additional customer interactions such programs encourage lead to positive effects (Wildt et al. 1980–1981; Zoltners et al. 2006), such as stimulating extra selling effort and higher long-term sales (Wotruba and Schoel 1983). These stark differences in opinion have been debated at length; however, little empirical research has systematically explored these conjectures. Our paper addresses this important gap by investigating short-term and long-term customer value impacts on individual customers who purchase during a specific type of push marketing program: the sales contest.

Accounting for more than \$26 billion in annual expenditures (Lim et al. 2009), sales contests are popular tools to motivate salespeople to improve performance. Despite academic interest dating back over 80 years (e.g., Haring and Myers 1953; Tosdal 1924), sales contests have received limited research attention. In particular, attempts to explore the long-term impacts empirically have been sparse (Albers 2002).

Some empirical research has found positive short-term effects of sales contests at the aggregate level (Gopalakrishna et al. 2009; Wildt et al. 1987). However, these studies do not address the impact of the sales contest on individual customers, nor do they consider long-term customer value. This objective has been hindered by the difficulty in acquiring customer-level sales data over an extended period. Furthermore, the existing literature relies on anecdotal evidence and remains speculative when discussing the potential negative long-term customer outcomes (Hampton 1970; Kohn 1993a, b). The disparate viewpoints noted above, which have not been tested empirically, represent confusing and conflicting perspectives regarding sales contest outcomes. In this paper, we develop hypotheses based on theories in buyer behavior, customer loyalty, and sales management while employing the customer value framework, the A/R/A (i.e., acquired/ retained/ add-on) typology and past research on sales contests. To test disaggregate level hypotheses, we compare the long-term and short-term value of customers who purchase during a sales contest with customers who purchase outside the contest. To the best of our knowledge, the present study is the first to examine individual purchase histories from a sales contest to assess long-term value of customers.

We consider customer purchases along two dimensions. First, we draw on extant literature that suggests purchase history has an important bearing on a customer's purchase behavior during a contest (Colletti et al. 1988; Wildt et al. 1980–1981). In fact, customer loyalty research has a long tradition of differentiating the impacts of marketing efforts directed toward customer retention versus customer acqui-

sition (Reichheld and Sasser 1990). Thus, we distinguish between acquired (new buyers), retained (previous purchasers of the focal product), and add-on customers (first-time purchasers of the focal product who have previously bought other products) to discern the impact of the sales contest across these customer segments.

Second, we separate the value of the initial purchase from subsequent purchases. The initial purchase represents the short-term impact, while subsequent purchases represent the long-term impact of the contest. The distinction between the initial and subsequent purchases becomes important in a "push" marketing context as the salesperson is likely to feel pressure to complete the sale within the duration of the contest. We develop hypotheses for two common customer value indices: customer churn and purchase frequency. Customer churn is the rate at which customers leave the firm or stop buying a particular product. Purchase frequency is the number of purchases made within a time horizon.

We first review the literature on customer loyalty, push versus pull marketing programs, sales contests, and buyer behavior. Next, we develop hypotheses for short-term and long-term customer value, customer churn, and purchase frequency for the different customer cohorts. We then utilize secondary data to test the hypotheses. Finally, we summarize our research findings, discuss managerial implications, and suggest future research directions.

Literature review

Customer loyalty

Research on customer loyalty has evolved based on the principle that loyal customers are generally worth more to the firm (Morgan and Hunt 1994; Reichheld 1996; 2001; Reichheld and Sasser 1990; Sheth and Parvatiyar 1995). More recently, this research stream has focused on measuring the value of loyal customers and understanding the financial value of customers over time (Berger and Nasr 1998; Gupta et al. 2004; Rust et al. 2004; Venkatesan and Kumar 2004). Assessing customer value and evaluating the customer's contribution to firm equity are important components of performance assessment that emanate from theories in customer loyalty. By considering the complete cost of customer service, Niraj et al. (2001) show sales revenue, by itself, is not a good indicator of customer profitability. Venkatesan and Kumar (2004) show that lifetime value is a better predictor of long-term customer profitability than other metrics, such as past customer revenue. They develop a framework for better allocation of marketing resources to maximize long-term value. The literature on customer value also considers the impact of churn, margin, and acquisition rates, which are shown to

have a greater impact on firm value than discount rates or cost of capital (Gupta et al. 2004). The authors assess customer value based on the timing of revenue flows, and segment the customer base into cohorts (i.e., groups of customers defined by the year in which they were acquired).

The customer value literature commonly employs the A/R/A typology to develop a theoretical rationale for the impact of marketing activities on specific customers (Blattberg and Thomas 2002, pp. 303–304). This typology has been used to classify different types of marketing efforts directed at customers. For example, promotions targeted toward existing customers are referred to as *retention* costs, while those directed at new customers are called *acquisition* costs (Berger and Nasr 1998; Berger et al. 2002). Another variation uses the A/R/A typology to separate customers who have previously bought from the firm and those who have bought from competitor firms (Blattberg and Deighton 1996; Rust et al. 2004; Schweidel et al. 2008). Blattberg et al. (2001) develop a model to differentiate selling effort based on this typology, in which rewarding “install-base” selling (e.g., selling new products to existing customers) by IBM is noted as an example of *add-on* selling.

Reichheld (1996) highlights the importance of understanding different customer cohorts in assessing customer value. He finds profits from a customer increase over the customer’s lifetime, suggesting retained customers generally offer more value over time than newly acquired customers. Most marketing research has found that it is more costly and time consuming to attract new customers than to keep existing customers (e.g., Heskett et al. 2008). However, Reinartz and Kumar (2000) underscore the importance of assessing customer value over time, focusing on factors such as customer tenure, the cost of servicing, and the price paid by the customer. They find retained customers are not always more valuable, thus challenging conventional wisdom regarding the profitability of long tenure, “loyal” customers. These articles highlight the notion that customers vary in the value they generate.

Our research adapts the use of customer cohorts with the A/R/A typology to investigate variations in customer value resulting from a sales contest. Furthermore, building on the work of Reinartz and Kumar (2000) and others, we consider the temporal dimension of customer value. Specifically, by adapting the customer value model of Gupta et al. (2004), we assess short-term (initial purchase) and long-term (subsequent purchases) customer value. Most customer value literature focuses on marketing activities targeted toward the end-consumer (i.e., “pull” marketing programs). No research, to our knowledge, has considered the customer value impact of marketing activities directed through channel intermediaries (i.e., “push” marketing programs).

Marketing programs—pull versus push

Pull marketing strategies are targeted directly at end-consumers, with firms commonly employing advertising and sales promotion as tools to attract consumers. For these programs distribution is typically extensive, the role of the channel member (dealer or distributor) in generating sales is passive, and the product is often sold “off the shelf.” In a push marketing strategy, the intervention by the channel member adds complexity to the sales process. Personal selling typically takes on an important role, and the intermediary is actively involved in creating demand for the product. Distribution is selective and the product is often customized to match end-consumer needs (Webster 1995, pp. 221–222).

Rust et al. (2004) and Lewis (2006) are two recent studies that assess the impact of pull marketing programs on customer value. Rust et al. (2004) employ a “what-if” analysis of a loyalty program to demonstrate the impact of marketing programs on long-term customer value in a grocery setting. In another case study, they examine the impact of an advertising campaign on customer equity in the airline industry. The authors illustrate the impact of customer value drivers on marketing investments. Lewis (2006) finds price discounts to acquire customers in the newspaper and online grocery settings are negatively related to repeat-buying and value. Specifically, he finds customers acquired through promotional discounts have lower repurchase rates and lower long-term value.

Push marketing programs typically do not involve acquisition discounts, coupons, or loyalty benefits to the end-consumer. Instead, the primary focus is on the effort or “push” provided by the channel member. Salespeople are motivated, in many cases, by short-term monetary incentives. One might expect the channel members’ efforts to have an impact on customer value (short- and long-term), but the magnitude and direction of that impact is unclear. When the marketing program is in effect, the channel member may have a positive impact by tailoring messages to customers and prospects, and by building long-term relationships. On the other hand, the salesperson may have a negative impact on customer value by deploying undue pressure on the customer (in the short-term), thus jeopardizing current and future sales. Since the channel intermediary is trying to generate demand, the effects of push marketing may take longer to play out in cases where the product or sales cycle is more complex or requires customization to the prospect’s needs. In these cases, the decision process for the customer may be more involved and elaborate (Johnston and Marshall 2006, p. 96). Thus, it is generally believed that push marketing programs, such as sales contests, which impose a short time horizon, will be better suited for customers with shorter sales cycles (Wotruba and Schoel 1983).

The scarcity of empirical research on the impact of push marketing efforts in general, and sales contests in particular, on customer value leads to much speculation on the possible effects of such efforts. The sales contest literature provides additional basis for developing hypotheses.

Sales contests

Sales contests are incentives “to encourage extra effort aimed at short-term objectives” (Johnston and Marshall 2006, p. 336). Research in this area suggests that typical contests range in duration from one to three months (Colletti et al. 1988; Murphy and Dacin 1988; Tosdal 1924; Tousley 1949). The majority of empirical sales contest research has focused on important design issues (cf. Murphy et al. 2004). For example, much is known regarding the benefits of rank-order tournaments versus multiple-winner formats (Kalra and Shi 2001; Lim et al. 2009), salesperson preferences for designs (e.g., Beltramini and Evans 1988), and the impact of individual differences on motivation resulting from sales contests (e.g., Murphy 2004). However, the debate regarding the long-term customer value arising from sales contests simmers in the academic and business communities.

As noted before, there are mixed views on the outcomes of sales contests (cf. Hampton 1970; Murphy 2004; Murphy et al. 2004; Wildt et al. 1980–1981). Proponents contend sales contests can be effective tools to *improve sales skills*, *achieve higher margins* (cf. Albers 2002; Warner and Spencer 1991; Wildt et al. 1980–1981), and *improve customer service* (cf. Wildt et al. 1980–1981; Zoltners et al. 2006). Sales contests are also believed to stimulate *extra selling effort*, *additional customer interactions*, and *higher sales* (Wotruba and Schoel 1983). In fact, salesperson-customer interactions are key elements in measuring the success of sales efforts (Bolton et al. 2004; Jacobs et al. 2001; Zoltners et al. 2001). Increases in salesperson-customer interactions have been shown to improve customer satisfaction, which leads to long-term firm benefits (Zeithaml and Bitner 2003) and increased purchases by customers (Crosby et al. 1990).

On the other hand, sales contests also have a large base of critics who contend the limited time horizon of sales contests leads salespeople to neglect other important duties, press customers for sales, and overlook customer service, thereby negatively impacting long-term customer value and customer quality (Hampton 1970; Keenan 1994; Kohn 1993a, b). Wildt et al. (1980–1981, p. 60) state, “sales contests may cause sales personnel to sacrifice long-run customer relations for short-run increases in sales.” Others suggest sales contests lead salespeople to spend less time up-selling (cf. Murphy et al. 2004; Wotruba and Schoel 1983) and dilute average customer value by “dipping” into

lower quality customers in the pool of prospects (cf. Wildt et al. 1987). However, neither side presents a theoretical rationale or systematic empirical evidence to substantiate its arguments.

From our perspective, the firm-related impact of sales contests may vary depending on the type of customer (cf. Wildt et al. 1980–1981; Wotruba and Schoel 1983). To date, this perspective has not been tested empirically. This gap in the literature provides a strong motivation for the current research.

Buyer behavior

The theory of buyer behavior (Howard and Sheth 1969) represents a holistic theory for evaluating consumer decisions. The theory describes the buyer and the process by which purchases occur. We draw on elements of this theory, where time pressure is noted as an inhibitor to buyer decision making. Time pressure is a social constraint that emanates from exogenous forces. These forces create temporary barriers to fully satisfying buying preferences. In the case of sales contests, the salesperson is aware of the timeframe of the contest. During the selling process, the salesperson is likely to convey this time pressure indirectly to the buyers. Likewise, information processing theory suggests decision accuracy decreases with time pressure (Bettman et al. 1998). Consumer researchers have identified decision time as an important situational factor in consumer choice that has considerable theoretical significance (Chowdhury et al. 2009). Based on these theoretical underpinnings, we expect that the time pressure (sense of urgency) imposed on buyers during the sales contest will generally reduce the value of their purchases.

Information processing theory also mentions product familiarity as an important factor in buyer behavior. Alba and Hutchinson (1987) note the consumer’s ability to analyze information improves with product familiarity. In the A/R/A framework described earlier, familiarity with the product, agent, and the firm is a defining characteristic for the retained customer cohort. Thus, in the case of retained customers, familiarity is likely to counteract the time pressure imposed by the sales contest.

In summary, our research makes several contributions to the marketing literature. We assess the impact of push marketing programs on customer value. We also investigate the variation of the customer value impact across three distinct customer cohorts (acquired, add-on, and retained). Finally, we build on prior research to explore the short-term and long-term components of customer value. In developing the arguments, we offer supporting theoretical rationale based in the buyer behavior, customer loyalty, and sales management literatures.

Hypothesis development

As noted earlier, the debate regarding contest effects on customer value suggests that exploring the short-term and long-term outcomes of sales contests is worthwhile. The short duration of sales contests, typically one to three months (Colletti et al. 1988; Murphy and Dacin 1988; Tosdal 1924; Tousley 1949), generates considerable excitement. However, the limited time horizon also creates a sense of urgency. The pressure to complete the sale within a deadline creates the likelihood that salespeople may rush the process and thereby negatively impact interactions with customers.

In the theory of buyer behavior, time pressure is defined as an inhibitor or temporary barrier to making an optimal buying decision (Howard and Sheth 1969). Other studies in consumer behavior that have examined the effect of time pressure on choice report several ways in which people respond to time constraints (Dhar and Nowlis 1999). Consumers accelerate the rate at which they examine information (Ben Zur and Breznitz 1981), filter information focusing on the more important attributes (Svenson and Edland 1987; Wright 1974), and alter their decision strategy when deciding under time pressure. Thus, a common response to time pressure is for the decision maker to simplify their decision by using a less effortful decision strategy (Payne et al. 1988). This may include deferring difficult decisions (cf. Dhar and Nowlis 1999), such as attempts by the salesperson to up-sell.

However, product familiarity can improve the buyer's ability to process information (Alba and Hutchinson 1987) and might possibly moderate the effect of time pressure. The length of the sales cycle in relation to the duration of a sales contest has an important role in driving the behavior of salespeople (Murphy et al. 2004; Murphy and Dacin 1988; Tousley 1949; Wotruba and Schoel 1983). The mean sales cycle length (and variance in sales cycle length) is likely to be higher for new customers (acquired and add-on) because they have limited or no familiarity with the product, brand, and/or salesperson. In the case of retained customers (those who are previous purchasers of the focal product), the sales cycle is typically shorter¹ because of their greater level of familiarity with these aspects (Johnston and Marshall 2006, pp. 50–51). Thus, retained customers who typically have greater familiarity with the salesperson, firm, and product are less likely to be affected by any time pressure that the salesperson may convey during the sales process. Thus, we hypothesize:

H1a: Customers *acquired during* the sales contest will have *lower initial purchase value* than customers *acquired outside* the sales contest.

H1b: Customers *added-on during* the sales contest will have *lower initial purchase value* than customers *added-on outside* the sales contest.

H1c: Customers *retained during* the sales contest will have *higher initial purchase value* than customers *retained outside* the sales contest.

Examining subsequent purchases offers insight into long-term value. Specifically, the negative impact of the rushed sales process during the contest is likely to persist and surface later in the form of lower subsequent purchases from acquired and add-on customers. The “constraining” effect of the contest on the salesperson (which is conveyed to the prospect) will likely result in accelerating the timing of the purchase. This is similar to borrowing sales from the future (Hampton 1970). This “less than desirable” purchase experience for the new customer (acquired or add-on), and other time pressures related to the initial purchase, will likely manifest in the long-term in the form of lower value of future customer purchases (Caballero 1988).

On the other hand, sales contests are noted as a mechanism well-suited for engaging existing customers. The short horizon of sales contests matches well with the shorter sales process required for retained customers. Furthermore, the sales contest can be an effective way to encourage additional interactions with existing customers, to seek more purchases from them (Wildt et al. 1980–1981), and to introduce them to potential future purchases (Zoltners et al. 2006, pp. 382–390). In short, these increased interactions and introductions to other products generally lead to improved long-term outcomes (Zeithaml and Bitner 2003). Accordingly, the subsequent purchase value for retained customers who purchase during a sales contest will be positively impacted. Therefore, we hypothesize:

H2a: Customers *acquired during* the sales contest will have *lower subsequent purchase value* than customers *acquired outside* the sales contest.

H2b: Customers *added-on during* the sales contest will have *lower subsequent purchase value* than customers *added-on outside* the sales contest.

H2c: Customers *retained during* the sales contest will have *higher subsequent purchase value* than customers *retained outside* the sales contest.

In addition to the primary hypotheses, we consider some underlying reasons for the expected findings. The negative arguments regarding sales contests focus on the apparent lower quality of customers who purchase during the contest. Two important measures of quality noted in the customer value literature are customer churn and purchase frequency. Churn is a critical component of long-term customer value (Blattberg and Deighton 1996;

¹ A notable exception is in the case of key accounts where, in some instances, large business-to-business customers may require more contact because of the complexity of the relationship (Cannon and Homburg 2001; Homburg et al. 2002; Jones et al. 2005).

Reichheld and Sasser 1990). Neslin et al. (2006) note churn has become “a significant problem” in many industries. Sales contest literature suggests contests result in high levels of overall churn for acquired and add-on customers as a reaction to the pressure felt to make the initial purchase (Hampton 1970; Kohn 1993a, b; Wotruba and Schoel 1983). However, we expect churn for retained customers to be lower due to greater familiarity, improved ability to process information, and lower perceived pressure regarding the purchase decision (cf. Wildt et al. 1980–1981; Zoltners et al. 2006, pp. 382–390). We expect to find these effects in the short-term, where other intervening effects are less prevalent. In the long-term, confounding influences will make this effect less significant. Hence:

H3a: In the short term, customers *acquired during* the sales contest will have *higher churn* than customers *acquired outside* the sales contest.

H3b: In the short term, customers *added-on during* the sales contest will have *higher churn* than customers *added-on outside* the sales contest.

H3c: In the short term, customers *retained during* the sales contest will have *lower churn* than customers *retained outside* the sales contest.

Purchase frequency is another measure of quality in customer value research, and past purchase frequency is the metric often used (e.g., Reinartz and Kumar 2003). However, the sales contest literature suggests negative impacts on *future purchases* for acquired and add-on customers (cf. Hampton 1970; Keenan 1994; Kohn 1993a, b), and a positive impact for retained customers (cf. Wildt et al. 1980–1981; Zoltners et al. 2006, pp. 382–390). We expect to find this effect especially in the short-term. Accordingly:

H4a: In the short term, customers *acquired during* the sales contest will have *lower purchase frequency* than customers *acquired outside* the sales contest.

H4b: In the short term, customers *added-on during* the sales contest will have *lower purchase frequency* than customers *added-on outside* the sales contest.

H4c: In the short term, customers *retained during* the sales contest will have *higher purchase frequency* than customers *retained outside* the sales contest.

Empirical research setting

Our data for this research were provided by a regional insurance company. The company operates in several Midwestern U.S. states through exclusive independent sales agents with annual sales exceeding \$1 billion.

The sales scenario

Our study examines two sales contests administered by the company in 1996. The sales contests were similar in format and designed to motivate sales agents to sell life insurance policies, the firm’s highest-margin product line. Both contests had six-week durations. Two other product lines, auto and home insurance, were also in the portfolio. Agents producing sales above a specified target for life insurance during the contest period received a prize; higher sales levels resulted in better prizes. The top sales producers, companywide, received additional prizes and recognition awards. Thus, the contest had a mix of rank-order (i.e., tournament) and multiple-winner (i.e., hurdle) rewards (Kalra and Shi 2001). Agents received their normal commissions on all products. Despite utilizing sales contests for several years, the company’s management remained uncertain about the long-term customer impact of these contests.

Method

The data include daily sales of the three product lines from 1995 to 2004. The primary objective of the contests was to promote life insurance sales to all customers. The company did not track acquired, add-on, or retained customer cohorts, nor did it differentiate among these cohorts when making awards or otherwise analyzing the contest results. Thus, we consider all customers who bought a new life insurance product in 1996. Customer value calculations include the value of all product purchases (i.e., home, auto, and life insurance) in 1996 and beyond. The company provided data regarding sales contest costs and margins for each product line. There were 1,581 agents in 1996 and the average work experience across agents was 11.3 years.

We assigned customers to cohorts based on their *initial life insurance purchase in 1996*. If a purchase was made within the start and end dates of the contest, we labeled the customer as “contest;” otherwise we labeled the customer as “non-contest.” Customers with no previous purchase with the company were also labeled “acquired” customers, those with a previous life insurance purchase were labeled “retained” customers, and those who only made previous auto or home insurance purchases were labeled as the “add-on” cohort because they expanded their purchases to a new product line (Blattberg et al. 2001). When the acquired, retained, and add-on customers are further classified by contest and non-contest, six cohorts result (see Fig. 1). We assessed customer value based on net present value of future cash flows over nine years of available data.

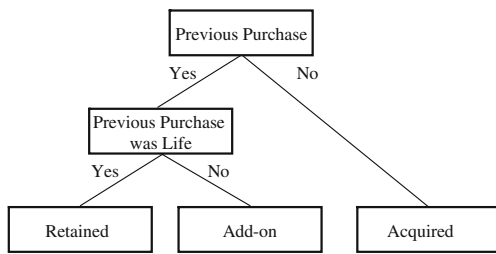


Figure 1 Determination of customer cohorts.

Analysis and results

Based on company-supplied information, we applied different contribution margins to assess the value of life, home, and auto insurance purchases after 1996. Cash flows from January 1996 to December 2004 were discounted at an 8% annual rate. The following equation was used to compute individual customer value:

$$CV = \sum_{k=1}^3 \sum_{t=0}^T CM_{kt} \frac{S_{kt}}{(1+r)^t} \tag{1}$$

Where

- CV* the value of a customer, as of January 1996;
- K* product lines, such that 1 = life, 2 = home, and 3 = auto;
- T* total number of periods (months);
- CM_{kt}* the contribution margin for product *k* at time *t*;
- S_{kt}* product *k* sales to a customer at time *t*; and
- R* the discount rate.

We first consider the initial purchase. As shown in Table 1, the value of the initial purchase for acquired customers during the contest (\$20) was lower than similar customers outside the contest (\$24). This difference is significant ($F=21.433, p<.001$), supporting H1a. Further-

more, the difference between the value of initial purchases by add-on customers in the contest (\$23) and outside the contest (\$27) is also significant ($F=9.175, p<.01$), supporting H1b. For retained customers, the value of the initial purchase during the contest versus outside the contest is the same (\$18) ($F=0.254, NS$). Overall, these results offer support to arguments that the longer sales cycle for the acquired and add-on cohorts makes those customers likely to provide lower initial value.

Considering subsequent purchases, as shown in Fig. 2 and Table 1, “acquired” customers during the contest are negatively impacted when compared to the non-contest group (\$253 versus \$271; $F=3.576, p<.05$), supporting H2a. However, the contest and non-contest groups involving “add-on” customers do not show a significant difference (\$346 versus \$370; $F=0.787, NS$). “Retained” customers during the contest exhibit a significant *improvement* in the value of subsequent purchases when compared to the equivalent non-contest group (\$652 versus \$512; $F=3.886, p<.05$). Further analysis shows the increase in the value of retained customers can be attributed to subsequent purchases of life insurance, the focal product of the contests. Specifically, the value of subsequent purchases of life insurance was \$230 for retained customers who purchased outside the contest, whereas it was \$338 for the same cohort of customers who purchased during the contest. These results support H2c and show retained customers increase in value following the sales contest.

To further investigate the difference between *customers retained* during and outside the sales contest, we employed a Chow test (Chow 1960) using the monthly value associated with each customer, starting in January 1997. This approach accounts for variations in the date of the initial purchase in 1996. The data were filtered using standard practice in dealing with potential serial correlation, utilizing prior period customer value as an instrumental variable (Kmenta 1986). Durbin-Watson statistics supported the efficacy of using this filtered variable in our regressions.

Table 1 Customer value

Purchase occasion	Customer type	<i>n</i>	Customers/week	Overall value	Short-term value	Long-term value
Contest	Acquired	2,058	172	273**	20****	253**
Non-contest	Acquired	2,296	57	295**	24****	271**
Contest	Add-on	1,093	91	369	23***	346
Non-contest	Add-on	1,420	36	397	27***	370
Contest	Retained	404	34	670**	18	652**
Non-contest	Retained	511	13	530**	18	512**
Contest	Total	3,555	296	348	20****	327
Non-contest	Total	4,227	105	358	25****	333

**** $p<.001$, *** $p<.01$, ** $p<.05$

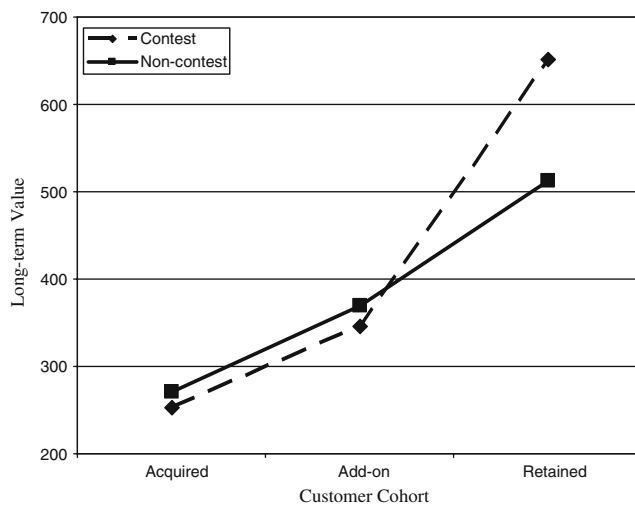


Figure 2 Value of purchases by customer cohort.

This filter corrects for potential serial correlation problems associated with regression analyses using time-series, cross-sectional data.

We conducted the Chow test by using the following regression:

$$Y_t = \beta_0 + \beta_1 d + (\beta_2 + \beta_3 d)M_t + (\beta_4 + \beta_5 d)M_t^2 \quad (2)$$

Where

- Y_t estimated customer value at time t ;
- β_0 value at intercept;
- d dummy variable (1 = contest, 0 = non-contest); and
- M_t month at time t .

The Chow test is significant at the overall level ($F=1422.951$; $p<.0001$). Similar to H1c, the coefficient β_1 shows contest customers start at an initial purchase value that is .403 higher. (3.010 versus 2.607; $t=2.951$, $p<.01$). The coefficient β_2 confirms that customer value tends to increase over time ($t=20.826$, $p<.001$). The coefficient β_3 is not significant suggesting retained customers who purchase during the sales contest have the same slope as non-contest customers ($t=-0.282$, ns); thus, they initially add value at the same rate. The coefficient β_4 reveals that customer value grows in a quadratic fashion for both contest customers and non-contest customers ($t=-11.054$, $p<.001$). However, the quadratic associated with the sales contest customers, β_5 , decreases at a slower rate ($t=4.531$, $p<.001$). These results show that retained customers in the sales contest maintain value for a longer period of time (see Fig. 3). This finding is consistent with H2c, i.e., sales contest interactions lead to higher subsequent sales for retained customers.

It is interesting to note the average customer value (from 1996 to 2004) at the aggregate level was \$358 for

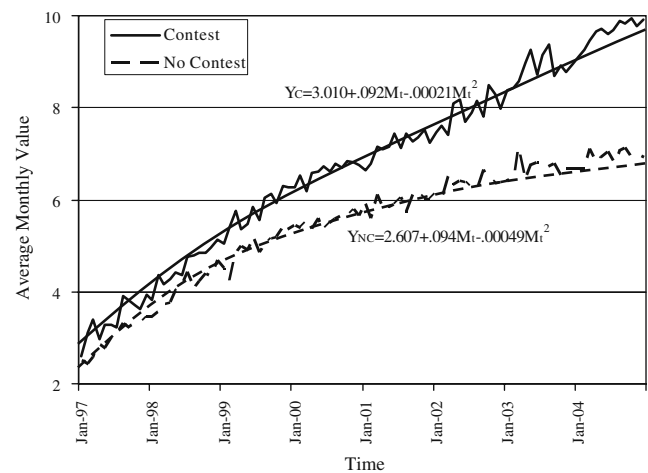


Figure 3 Average monthly value of retained customers.

customers who purchased outside the contests. For customers purchasing during the contests, the value is slightly lower at \$348 per customer although the difference is not statistically significant (see Table 1). Thus, in an overall sense, the contest customers offer a value comparable to the non-contest customers. Note, however, that the aggregate analysis overlooks important differences that are revealed at the cohort level. We return to a discussion of overall contest effectiveness in the “Discussion” section.

We investigate the secondary hypotheses, H3 and H4, by considering customer churn and purchase frequency at three points in time: the conclusion of years 1996, 2000, and 2004. We measure churn as the rate at which a customer maintains the original purchase with the firm and measure purchase frequency as the number of purchases that a customer makes with the firm after the original purchase. As shown in Table 2, the churn rate for acquired and add-on customers during the contest is significantly lower in 1996 than for customers outside the contest. The purchase frequency was higher for customers acquired and added-on in the contest. Further removed from the contest, in 2000 and 2004, the differences were less significant. For retained customers, the churn rate during the contest was lower in 1996 than the non-contest customers, but this difference was not significant in 2000 or 2004. Therefore, contrary to the opinions expressed by critics, there is no increase in the churn rate for customers who purchase during contests. When we examine purchase frequency, we note purchase frequencies are either the same or higher among the contest group when compared to the non-contest groups. Purchase frequency was higher in 1996, but further away from the contest, the differences were less significant. This suggests that contests may have an initial effect but the long-term effects on purchase frequency are minimal. The last column in Table 2 indicates the value of purchases per purchase occasion. As expected, these numbers are consistent with

Table 2 Customer churn, purchase frequency, and future purchases

Purchase occasion	Customer type	n	Customer churn			Purchase frequency			Average value of future purchases 2004
			1996	2000	2004	1996	2000	2004	
Contest	Acquired	2,058	0%****	21%	43%	0.5***	1.7	2.9	105***
Non-contest	Acquired	2,296	3%****	22%	43%	0.4***	1.7	2.9	118***
Contest	Add-on	1,093	0%****	22%**	44%	0.5***	2.9*	5.3**	92*
Non-contest	Add-on	1,420	4%****	25%**	46%	0.4***	2.7*	4.8**	101*
Contest	Retained	404	0%**	14%	32%	0.5**	3.0	5.5*	139
Non-contest	Retained	511	1%**	13%	35%	0.3**	2.8	5.0*	140
Contest	Total	3,555	0%****	20%*	42%	0.5****	2.2	3.9*	105***
Non-contest	Total	4,227	3%****	22%*	43%	0.4****	2.2	3.8*	114***

**** $p < .001$, *** $p < .01$, ** $p < .05$, * $p < .10$

Table 1, showing a lower value on each future purchase occasion among the contest customers for the acquired and add-on cohorts when compared to the corresponding non-contest group. In the case of retained customers, the value per purchase occasion is similar across the contest and non-contest groups.

The churn rate, purchase frequency, and value of the purchase on each purchase occasion are key factors determining customer value. There is less churn and higher purchase frequency among acquired and add-on contest customers initially, and the average value in future purchase occasions is lower for contest customers in these cohorts. This is consistent with Table 1. That is, acquired and add-on customers in the contest have a lower value of initial purchases. This lower value appears to establish a benchmark that channels these customers into a mode of “lower value per future purchase occasion.”

Discussion

In this paper, we develop hypotheses drawing on theories in the buyer behavior, customer loyalty, and sales management domains, in order to assess the value of customers who purchase a product promoted through a push marketing program: the sales contest. We evaluate customer value by considering the impact over nine years of data. We then compare the value of customers who purchased during the sales contest in 1996 with those who purchased at other times. Thus, we build on the work of Lewis (2006) and Rust et al. (2004) by assessing the impact of a sales contest on short-term and long-term customer value. Similar to the findings of Reinartz and Kumar (2000), these results show an aggregate-level analysis can be insufficient and potentially misleading in terms of assessing the value of customers.

Specifically, retained customers during the sales contests offer a higher long-term value to the firm. The general

findings in this paper are consistent with prior research that suggests retained customers are less costly and more valuable in the long-term (e.g., Heskett et al. 2008). It is also consistent with information processing theory within the realm of buyer behavior that suggests familiarity improves information processing (Alba and Hutchinson 1987), lessening the impact of inhibitors like time pressure. Managers with an interest in improving the long-term value of their customer base should ask their salespeople to pay close attention to variations in the sales cycle for different types of customers when time constraints are present.

While the largest set of customers in these data, acquired and add-on customers, are lower in long-term value to the firm, it is important to note the volume of these customers triples during the contest. While these ratios may vary across settings, many managers will accept lower short-term customer value as a trade-off for the higher volume of customers that is typical of many sales contests (Wildt et al. 1987). For example, in this contest, the firm sold to 296 customers per week worth \$348 on average, versus 105 customers per week worth \$358 outside the contest. The increase in customer volume easily overcomes the slight decrease in value per customer.

In two important dimensions, customer churn and future purchases, contest customers in the retained cohort seem to perform as well as or better than their counterparts. On the other hand, acquired and add-on customers have a lower initial purchase value. These customers are seemingly anchored to this reference point as future purchases remain at lower levels. This may lead some managers to conclude they should expand the length of the contest in order to avoid conflict with the decision process for new customers who may need more time for deliberation. In order to maintain enhancements to motivation, care must be taken that the sales contest is not seen as the norm and therefore a part of regular compensation. Thus the typical duration of sales contests, one to three months (Colletti et al. 1988; Murphy

and Dacin 1988; Tosdal 1924; Tousley 1949), is likely advisable in most situations.

Conclusions and future research directions

Our findings offer some insight into the conflicting views regarding the short-term and long-term effects of a sales contest. The results are largely consistent with those suggested by theories in buyer behavior (Alba and Hutchinson 1987; Bettman et al. 1998; Howard and Sheth 1969), customer loyalty (Reichheld 1996) and sales management.

Our findings suggest customer value as seen from a short-term or aggregate perspective does not convey a complete picture and can sometimes be misleading. For example, analysis at the aggregate-level or with a short-term focus could lead a manager to prematurely terminate marketing programs. Individual customers who have a lower initial impact are not necessarily less valuable in the long term. The differential impact by customer type shows some customers (i.e., retained customers) can be consistently valuable. The disaggregation of customer value by customer type and short-term/long-term value could offer valuable insights for other areas of customer value research. For example, differences in short-term and long-term value resulting from a promotional program could be investigated. In channels and relationship management research, customer lifetime value across customer segments, such as acquired, add-on, and retained customers could be differentiated. Other push marketing programs such as volume discounts, training programs, promotions directed at salespeople, and cooperative advertising may have direct relationships to the findings reported here.

While a large body of research on sales contest design issues exists (cf. Murphy et al. 2004), future research might integrate contest design and value by considering designs where the value of initial purchases is not sacrificed. For example, researchers could examine the implications of designing sales contests based upon rewards that encourage sales to retained customers, marketing programs with varied durations, or products with shorter sales processes.

Managers should design incentives to be consistent with the sales cycle. Likewise, managers should reward salespeople for selling products to customers whose sales cycle is consistent with the timeline of the incentives. Specifically, in the case of sales contests, managers may want to incentivize sales to existing customers who add more value to the firm and can be positively impacted during the contest.

Future research may consider designs which capture specific salesperson and customer variables to further validate these relationships. For example, data on perceptions of customers who purchase during contests may be valuable. It may be worthwhile to establish and validate more definitive causal relationships that explore whether

retained customers who purchase during the sales contest perceive higher levels of interaction quality and increased loyalty than customers who purchase outside the contest. Furthermore, considering the nature of loyalty or dependence (e.g., Scheer et al. 2010) for customers who purchase during these marketing programs could benefit inquiries into the behavioral factors impacting customer value.

This analysis was conducted in a single company/industry setting, largely because of the difficulty of accessing this type of proprietary data. While single-company settings have been employed in previous research involving sales (e.g., MacKenzie et al. 2001) and as an illustration for marketing return on investment (e.g., Rust et al. 2004), additional work involving multiple industries would be beneficial. That said, the Insurance Information Institute calculates that the insurance industry is nearly \$1.2 trillion in annual sales. Additionally, this setting has provided a prominent research environment for the development of sales management theory (e.g., Crosby et al. 1990; MacKenzie et al. 2001).

The time horizon of the data is limited; however, the nine-year time horizon used in this data set is longer than most other published studies on customer value. This analysis involves a product whose future cash flow is partially controlled by a contract. However, as in the setting described in Thomas et al. (2004), the customers are free to terminate their contract at any time. In fact, our data show significant differences in customer churn a few months after the contest. Additional studies in non-contractual settings and other industries, such as consumer packaged goods, could generate additional insights (cf. Reinartz and Kumar 2000). Overall, this paper contributes to a better understanding of the short-term and long-term customer value impacts of push marketing programs such as sales contests.

Acknowledgement The authors thank the three anonymous reviewers and the editor for their constructive suggestions. The authors are grateful to the President and Chief Executive Officer, the Director of Marketing Programs, and the Vice President of Marketing of the company that provided us data access. We also thank Jennifer Burton, Mitch Griffin, Ratti Ratneshwar, and Robert Scott for their helpful feedback.

References

- Alba, J. W., & Hutchinson, J. W. (1987). Dimensions of consumer expertise. *Journal of Consumer Research*, 13, 411–454.
- Albers, S. (2002). Salesforce management compensation, motivation, selection, and training. In B. A. Weitz & R. Wensley (Eds.), *Handbook of marketing* (pp. 248–266). London: Sage.
- Beltramini, R. F., & Evans, K. R. (1988). Salesperson motivation to perform and job satisfaction: a sales contest participant perspective. *The Journal of Personal Selling & Sales Management*, 8, 35–42.

- Ben Zur, H., & Breznitz, S. J. (1981). The effect of time pressure on risky choice behavior. *Acta Psychologica*, 47, 89–104.
- Berger, P. D., & Nasr, N. I. (1998). Customer lifetime value: marketing models and applications. *Journal of Interactive Marketing*, 12, 17–30.
- Berger, P. D., Bolton, R. N., Bowman, D., Briggs, E., Kumar, V., Parasuraman, A., et al. (2002). Marketing actions and the value of customer assets: a framework for customer asset management. *Journal of Services Research*, 5, 39–54.
- Bettman, J. R., Luce, M. F., & Payne, J. W. (1998). Constructive consumer choice processes. *Journal of Consumer Research*, 25, 187–217.
- Blattberg, R. C., & Deighton, J. (1996). Manage marketing by the customer equity test. *Harvard Business Review*, 74, 136–144.
- Blattberg, R. C., & Thomas, J. S. (2002). Valuing, analyzing, and managing the marketing function using customer equity principles. In D. Iacobucci (Ed.), *Kellogg on marketing*. New York: Wiley.
- Blattberg, R. C., Getz, G., & Thomas, J. S. (2001). *Customer equity*. Boston: Harvard Business School Press.
- Bolton, R. N., Lemon, K. N., & Verhoef, P. C. (2004). The theoretical underpinnings of customer asset management: a framework and propositions for future research. *Journal of the Academy of Marketing Science*, 32, 271–292.
- Caballero, M. J. (1988). A comparative study of incentives in a sales force sales contest. *The Journal of Personal Selling & Sales Management*, 8, 55–58.
- Cannon, J. P., & Homburg, C. (2001). Buyer-supplier relationships in business markets. *Journal of Marketing*, 65, 29–43.
- Chow, G. C. (1960). Tests of equality between sets of coefficients in two linear regressions. *Econometrica*, 28, 591–605.
- Chowdhury, T. G., Ratneshwar, S., & Mohanty, P. (2009). The time-harried shopper: exploring the differences between maximizers and satisficers. *Marketing Letters*, 20(2), 155–167.
- Colletti, J. A., Cichelli, D. J., Linser, S. D., Martin, J. F., Schattinger, D. S., & Tubridy, G. S. (1988). *Current practices in sales incentives*. New York: The Alexander Group.
- Crosby, L. A., Evans, K. R., & Cowles, D. (1990). Relationship quality in services selling: an interpersonal influence perspective. *Journal of Marketing*, 54, 68–81.
- Dhar, R., & Nowlis, S. M. (1999). The effect of time pressure on consumer choice deferral. *Journal of Consumer Research*, 25, 369–384.
- Gopalakrishna, S., Garrett, J., Mantrala, M., & Moore, J. D. (2009). Determining the effectiveness of sales contests. Working Paper. University of Missouri.
- Gupta, S., Lehmann, D. R., & Stuart, J. A. (2004). Valuing customers. *Journal of Marketing Research*, 41, 7–18.
- Hampton, D. R. (1970). Sales contests have side effects too. *California Management Review*, 12, 86–94.
- Haring, A., & Myers, R. H. (1953). Special incentives for salesmen. *Journal of Marketing*, 18, 155–159.
- Heskett, J. L., Jones, T. O., Loveman, G. W., Sasser, W. E., Jr., & Schlesinger, L. A. (2008). Putting the service-profit chain to work. *Harvard Business Review*, 86, 118–129.
- Homburg, C., Workman, J. P., Jr., & Jensen, O. (2002). A configurational perspective on key account management. *Journal of Marketing*, 66, 38–60.
- Howard, J. A., & Sheth, J. N. (1969). Theory of buyer behavior. In J. N. Sheth & D. Garrett (Eds.), *Marketing theory: classic and contemporary readings* (pp. 105–123). Cincinnati: Southwestern.
- Jacobs, R. S., Evans, K. R., Kleine, R. E., III, & Landry, T. D. (2001). Disclosure and its reciprocity as predictors of key outcomes of an initial sales encounter. *The Journal of Personal Selling & Sales Management*, 21, 51–61.
- Johnston, M. W., & Marshall, G. W. (2006). *Churchill, Ford and Walker's: Sales force management* (8th ed.). Boston: McGraw-Hill.
- Jones, E., Dixon, A., Chonko, L. B., & Cannon, J. P. (2005). Key accounts and team selling: a review, framework, and research agenda. *Journal of Personal Selling & Sales Management*, 25, 181–198.
- Kalra, A., & Shi, M. (2001). Designing optimal sales contests: a theoretical perspective. *Marketing Science*, 20, 170–193.
- Keenan, W., Jr. (1994). Breaking with tradition. *Sales and Marketing Management*, 146(6), 94.
- Kmenta, J. (1986). *Elements of econometrics* (2nd ed.). New York: Macmillan.
- Kohn, A. (1993a). Why incentive plans cannot work. *Harvard Business Review*, 71, 54–60.
- Kohn, A. (1993b). Alfie responds: 'I believe incentive plans must fail'. *Harvard Business Review*, 71, 48–49.
- Leigh, T. W., & Marshall, G. W. (2001). Research priorities in sales strategy and performance. *The Journal of Personal Selling & Sales Management*, 21, 83–93.
- Lewis, M. (2006). Customer acquisition promotions and customer asset value. *Journal of Marketing Research*, 43, 195–203.
- Lim, N., Ahearne, M. J., & Ham, S. H. (2009). Designing sales contests: does the prize structure matter? *Journal of Marketing Research*, 46(3), 356–371.
- MacKenzie, S. B., Podsakoff, P. M., & Rich, G. A. (2001). Transformational and transactional leadership and salesperson performance. *Journal of the Academy of Marketing Science*, 29, 115–134.
- Mantrala, M. K. (2002). Allocating marketing resources. In B. A. Weitz & R. Wensley (Eds.), *Handbook of marketing* (pp. 409–435). London: Sage.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58, 20–38.
- Murphy, W. H. (2004). In pursuit of short-term goals: anticipating the unintended consequences of using special incentives to motivate the sales force. *Journal of Business Research*, 57, 1265–1275.
- Murphy, W. H., & Dacin, P. A. (1988). Sales contests: a research agenda. *The Journal of Personal Selling & Sales Management*, 18, 1–16.
- Murphy, W. H., Dacin, P. A., & Ford, N. M. (2004). Sales contest effectiveness: an examination of sales contest design preferences of field sales forces. *Journal of the Academy of Marketing Science*, 32, 127–143.
- Neslin, S. A., Gupta, S., Kamakura, W., Lu, J., & Mason, C. H. (2006). Defection detection: measuring and understanding the predictive accuracy of customer churn models. *Journal of Marketing Research*, 63, 204–211.
- Niraj, R., Gupta, M., & Narasimhan, C. (2001). Customer profitability in a supply chain. *Journal of Marketing*, 65, 1–15.
- Payne, J. W., Bettman, J. R., & Johnson, E. J. (1988). Adaptive strategy selection in decision making. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 14, 534–552.
- Reichheld, F. F. (1996). *The loyalty effect: The hidden force behind growth, profits, and lasting value*. Boston: Harvard Business School Press.
- Reichheld, F. F. (2001). *Loyalty rules!* Boston: Harvard Business School Press.
- Reichheld, F. F., & Sasser, E. W., Jr. (1990). Zero defections: quality comes to services. *Harvard Business Review*, 68, 105–111.
- Reinartz, W., & Kumar, V. (2000). On profitability of long-life customers: an empirical investigation and implications for marketing. *Journal of Marketing*, 64, 17–35.
- Reinartz, W., & Kumar, V. (2003). The impact of customer relationship characteristics on profitable lifetime duration. *Journal of Marketing*, 67, 77–99.
- Rust, R. T., Lemon, K. N., & Zeithaml, V. A. (2004). Return on marketing: using customer equity to focus marketing strategy. *Journal of Marketing*, 68, 90–108.

- Scheer, L. K., Miao, C. F., & Garrett, J. (2010). The effects of supplier capabilities on industrial customers' loyalty: the role of dependence. *Journal of the Academy of Marketing Science*, 27, 4–18.
- Schweidel, D. A., Fader, P. S., & Bradlow, E. T. (2008). Understanding service retention within and across cohorts using limited information. *Journal of Marketing*, 72, 82–94.
- Sheth, J. N., & Parvatiyar, A. (1995). Relationship in consumer markets: antecedents and consequences. *Journal of the Academy of Marketing Science*, 23, 255–271.
- Srivastava, R. K., Shervani, T. A., & Fahey, L. (1999). Marketing, business processes, and shareholder value: an organizationally embedded view of marketing activities and the discipline of marketing. *Journal of Marketing*, 63, 168–179, Special Issue.
- Svenson, O., & Edland, A. (1987). Change of preferences under time pressure: choices and judgments. *Scandinavian Journal of Psychology*, 28, 322–330.
- Thomas, J. S., Blattberg, R. C., & Fox, E. J. (2004). Recapturing lost customers. *Journal of Marketing Research*, 41, 31–45.
- Tosdal, H. R. (Ed.). (1924). The use of sales contests among salesmen. *Harvard Business Review*, 2(4), 480–489.
- Tousley, R. D. (1949). Successful sales contests. *Journal of Marketing*, 13, 559.
- Vence, D. L. (2005). Marketers tire of the game. *Marketing News*, 15, 13.
- Venkatesan, R., & Kumar, V. (2004). A customer lifetime value framework for customer selection and resource allocation strategy. *Journal of Marketing*, 68, 106–125.
- Warner, C., & Spencer, J. (1991). *Radio and television sales staff profiles, compensation, practices, and motivation*. Retrieved June 2004 from <http://www.charleswarner.us/indexppr.html>.
- Webster, F. E. (1995). *Industrial marketing strategy* (3rd ed.). New York: Wiley.
- Wildt, A. R., Parker, J. D., & Harris, C. E., Jr. (1980–1981). Sales contest: what we know and what we need to know. *The Journal of Personal Selling & Sales Management*, 1, 57.
- Wildt, A. R., Parker, J. D., & Harris, C. E., Jr. (1987). Assessing the impact of sales-force sales contests: an application. *Journal of Business Research*, 15, 145–155.
- Wotruba, T. R., & Schoel, D. J. (1983). Evaluation of salesforce sales contest performance. *The Journal of Personal Selling & Sales Management*, 3, 1–10.
- Wright, P. (1974). The harassed decision maker: time pressures, distractions, and the use of evidence. *Journal of Applied Psychology*, 59, 555–561.
- Zeithaml, V. A., & Bitner, M. J. (2003). *Services marketing: Integrating customer focus across the firm*. Boston: McGraw-Hill.
- Zoltners, A. A., Sinha, P., & Zoltners, G. A. (2001). *The complete guide to accelerating sales force performance*. New York: American Management Association.
- Zoltners, A. A., Sinha, P., & Lorimer, S. E. (2006). *The complete guide to sales force incentive compensation*. New York: American Management Association.