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# Effects of Trait Competitiveness and Perceived Intraorganizational Competition on Salesperson Goal Setting and Performance

The authors assess the effects of trait competitiveness and competitive psychological climate on self-set goal levels and sales performance. The results indicate an interaction between trait competitiveness and competitive psychological climate, such that (1) salespeople who are high in trait competitiveness set higher goals when they perceive the organizational climate as competitive and (2) salespeople who are low in trait competitiveness set relatively low goals, regardless of their perceptions of competition in the organizational climate. Results also indicate that a self-set goal level is related strongly to performance and that self-efficacy has strong direct and indirect effects on sales performance. The authors also discuss implications for theory and practice.

Professionals like to be evaluated, to compete, to know they have excelled against their peers.

— James Brian Quinn, Philip Anderson, and Sydney Finkelstein, "Making the Most of the Best"

The more closely I have examined the topic, the more firmly I have become convinced that competition is an inherently undesirable arrangement, that the phrase *healthy competition* is actually a contradiction in terms.

— Alfie Kohn, *No Contest: The Case Against Competition*

Competition for organizational rewards, status, and even survival is a tool often used by sales managers to motivate greater performance from salespeople (Churchill, Ford, and Walker 1997). Yet opinion on the merits of competition is divided sharply, as the preceding quotes suggest. Winning and losing are endemic to such widely accepted sales management practices as contests, recognition programs, and quota systems. A study conducted by the Gallup Management Consulting Group, in which more than half a million salespeople were interviewed, concluded that a personality characteristic of great salespeople is that they are competitors, people who "want to beat colleagues or the competition" (Brewer 1994, p. 82).

The effects of intraorganizational competition in sales force and marketing contexts have not been investigated previously. Indeed, intraorganizational competition has received little systematic study in any field. Kohn (1992)

speculates that there may be a paucity of research on competition because it is so universal that it is taken for granted. The purpose of this study is to investigate the consequences of personal competitiveness and perceived intraorganizational competition on salesperson performance. We assess whether managers should hire competitive salespeople and/or foster competition within their sales organizations as ways to increase motivation and performance.

Although high performance is the ultimate sales management objective, research shows that setting challenging personal goals is an important intermediate step (Chowdhury 1993; Locke and Latham 1990). Personal goals have been referred to as "directors of action" (Gollwitzer and Bargh 1996, p. 1). As such, they play a large role in determining the intensity, direction, and persistence of goal-directed behavior (Austin and Vancouver 1996; Locke and Latham 1990). Goal-setting theory and research suggests that salespeople who set high goals are likely to perform well as a consequence. The robust relationship between goal level and task performance (Locke and Latham 1990; Mentto, Steel, and Karren 1987) suggests the importance of motivating employees to set challenging goals.

Although competition has been posited as a motivating force on people's self-set goals (Locke 1968; Locke and Latham 1990), little empirical research has addressed this issue. No previous research has analyzed the joint effects of trait competitiveness and intraorganizational competition on the choice of goal level and performance.

## Conceptual Development

Kohn (1992) makes a distinction between *structural* competition (i.e., the competition that is inherent in situations) and *intentional* (personal or attitudinal) competitiveness. The distinction is important because both can be influenced by management but by different kinds of decisions. Management influences structural competition through its decisions

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regarding performance appraisals, compensation, and supervisory practices, whereas it recruits intentional competitiveness into the organization through hiring practices.

### **Structural Competition**

Structural competition refers to situations in which two or more people vie for tangible or intangible rewards that are too scarce to be enjoyed equally by all (Kohn 1992). Some degree of mutually exclusive goal attainment is inherent in structural competition (Kohn 1992). That is, for one person to win and enjoy the greater share of rewards, another must lose and settle for fewer rewards. The amount of mutually exclusive goal attainment varies in situations that involve structural competition, but it is always present to some degree.<sup>1</sup> For example, announcing that only the top half of a training class would be retained would create a high degree of structural competition. A lesser (but still significant) degree of structural competition would occur in a contest in which all salespeople can win some reward, but the value of the rewards varies according to performance rankings. Hundred-percent clubs, honor circles, and other forms of recognition based on performance levels are common practices that involve moderate levels of structural competition.

The preponderance of research on structural competition has been conducted in laboratory settings that involve contrasts between competitive and noncompetitive groups created by experimental manipulations. This research has produced mixed results. Mueller (1983, cited in Locke and Latham 1990) finds that competition led to higher self-set goals on a brainstorming task. House (1974) finds that competition stimulated men to set higher goals when they were competing against women but not when they were competing against other men. Women, conversely, set higher goals when they were working independently. In Campbell and Furrer's (1995) lab study of performance on math problems, they find that goals and competition affected performance in opposite directions; higher goals facilitated higher performance, whereas competition was related negatively to performance.

Research on sales contests (e.g., Beltrami and Evans 1988; Murphy and Dacin 1998; Wildt, Parker, and Harris 1987; Wotruba and Schoel 1983) has begun to explore the effects of decisions that influence the degree of structural competition on sales performance. This research suggests that the degree of structural competition in a sales force can be influenced by management's decisions regarding (1) the distribution of rewards (e.g., "everyone wins something" versus "only the top three win" [Colletti et al. 1988]), (2) the value and nature of the rewards (e.g., "winners make the president's circle" versus "winners keep their jobs" [Caballero 1988]), (3) supervisory feedback (e.g., "you are on track to make quota" versus "you are running neck and neck against others for the top spot"), and (4) task and reward structures (e.g., team sales versus individual sales [Moncrief, Hart, and Robertson 1988]). The frequency with which sales managers create situations that involve compe-

tion suggests a shared "theory in use": that structural competition increases motivation and performance.

### **Competitive Psychological Climate**

Although research analyzing how management can create different levels of structural competition potentially can make an important contribution, a broader and more fundamental issue is whether work environments that are perceived as competitive stimulate higher motivation and performance than those perceived as less competitive. Our primary focus is on the effects of *subjective* (or perceived) structural competition on goal setting and performance. It is important to study salespersons' perceptions of the organizational environment because it is perceptions and interpretations of an environment that mediate people's behavioral responses to it (James, James, and Ashe 1990). The perceived level of structural competition within an organization constitutes an important aspect of its psychological climate.

*Psychological climate* refers to employees' perceptions of their organization's environment. James and colleagues (James et al. 1978; James, James, and Ashe 1990) maintain that employees interpret their organization's practices in light of their personal values and evaluate the implications of these practices for their personal well-being. Psychological climate is measured in terms of perceptions that are psychologically meaningful to the individual, rather than in terms of objective organizational features.

*Competitive psychological climate* represents the degree to which employees perceive organizational rewards to be contingent on comparisons of their performance against that of their peers (Kohn 1992).<sup>2</sup> Competition is an important aspect of psychological climate because it focuses employees' attention on the performance criteria that serve as the standards of peer-group comparison and creates demands on employees to focus their efforts on goal-related activities.

Different people are likely to perceive the same environment differently, which leads to variation in their behavioral responses to it. Although our focus is on the consequences, rather than the antecedents, of competitive psychological climate, we note that variation in psychological climate might result from the following general influences:

- *Individual differences among employees.* Differences in backgrounds, personalities, and experiences can create perceptual and interpretational biases leading to different perceptions (e.g., James, James, and Ashe 1990). For example, a salesperson who recently lost a bid for a promotion to an aggressive coworker may perceive the organization's climate as more competitive than a salesperson who simply is trying to do everything possible to achieve a personal sales quota.
- *Different situations within the same organization.* Supervisory practices are likely to differ across different managers within the same organization, giving rise to different perceptions of the environment. For example, some managers focus primarily on individual salespeople's progress toward their individual goals, whereas others pay close attention to competitive rankings among salespeople. Research also has shown that relationships with subordinates vary substantially even among those who report to the same manager (Dansereau, Graen, and Haga 1975; Podsakoff et al. 1995).

<sup>1</sup>The terms *structural competition* and *mutually exclusive goal attainment* can be considered, for all intents and purposes, synonymous.

<sup>2</sup>We use the term *peers* to refer to coworkers in the same organization.

Salespeople who rank in the top echelon tend to enjoy privileged relationships with management, whereas others experience distant relationships (Dienesch and Liden 1986).

- *Interactions between individual differences and situational factors.* The preceding types of factors may interact in ways that make their joint effects on employee perceptions greater than the combination of their individual effects (James, James, and Ashe 1990).

### **Trait Competitiveness**

Trait competitiveness is conceptualized as an aspect of personality that involves “the enjoyment of interpersonal competition and the desire to win and be better than others” (Spence and Helmreich 1983, p. 41). This definition is consistent with Kohn’s (1992) concept of intentional competitiveness. Kohn notes that intentional competitiveness is internal and “concerns the desire on the part of the individual to be number one” (p. 4).

Trait competitiveness and competitive psychological climate may be correlated positively because competitive people may be attracted to competitive organizations and/or because employees and organizations reciprocally influence each other. However, these variables represent perceptions of distinct phenomena (i.e., personality and organizational climate) and constitute distinct constructs.

Research has not related trait competitiveness specifically to self-set goal level. Several studies, however, relate trait competitiveness to task performance in various domains. This research has produced mixed results. Brown and Peterson (1994) find competitiveness to be related positively to sales performance. Carsrud and Olm (1986), in their study of entrepreneurs, find a positive relationship between trait competitiveness and company performance. Murphy (1986) reports a positive relationship between trait competitiveness and performance in a study of commercial lending officers. Several studies that use Helmreich and Spence’s (1978) Work and Family Orientation Questionnaire, however, find that performance was highest among people low in competitiveness but high in mastery (desire to engage in and excel at difficult and challenging tasks) and work orientation (tendency to persevere at tedious tasks; Spence and Helmreich 1983). These results suggest that the effects of trait competitiveness on performance depend on context, as is posited by the interactionist perspective.

In a task environment in which employees work independently of those they compete against, we expect trait competitiveness to be related positively to self-set goal level. More competitive people are likely to set higher performance goals that, if accomplished, will compare favorably with their peers’ performance and gain them positive evaluations.

### **The Interactionist Perspective**

The interaction between employees’ personalities and perceptions of organizational environments has been suggested as a key determinant of motivation and performance (e.g., Caldwell and O’Reilly 1990; Holland 1985). The interactionist perspective holds that the joint effects of personality traits and organizational characteristics explain incremental variance beyond the main effects of either type of variable.

### **Alternative Forms of Interaction**

Joyce, Slocum, and von Glinow (1982) describe three possible forms of person  $\times$  situation interaction. The first, *effect congruence*, assumes that a high level of each variable (i.e., competitive personality and competitive climate) is better. This would imply that managers should recruit highly competitive employees and attempt to foster a competitive psychological climate. Because each variable is related positively to the criterion, the situation in which both are low is least favorable, even though congruence exists. Although we hypothesize this pattern in the case of competitiveness (as we develop subsequently), the different patterns we describe next constitute alternative hypotheses with different practical implications.

The second possibility is *general congruence*. In general congruence, the fit between personal traits and organizational characteristics is favorable regardless of the level of each variable. General congruence predicts that criterion scores will be high when person–situation congruence exists (regardless of the level of the variables) and low when it does not. In this situation, managers should recruit people whose characteristics are consistent with their organization’s climate, but they can be flexible about the particular set of organizational characteristics they choose to foster, because it is the congruence, rather than the specific nature of climate, that matters most.

The third possibility is *functional congruence*, in which either trait competitiveness or competitive psychological climate (or both) can be related positively to the criterion, but the coincidence of a high level of both does not add to the effect of being high for either one alone. In this situation, a competitive climate might compensate for low levels of trait competitiveness, or vice versa. If so, sales managers should recruit highly competitive people but be aware that management practices (e.g., compensation and recognition structures that reward salespeople on the basis of performance rankings) also can boost the performance of those who are low on this trait.

### **The Effect Congruence Hypothesis for Competitiveness**

In this context, we expect that both trait competitiveness and competitive psychological climate will motivate salespeople to set challenging goals. Consistent with the effect congruence pattern, we also expect that the two will interact, such that personal goals and performance are highest when salespeople perceive both themselves and their organization’s climate as highly competitive. Highly competitive salespeople are likely to set high performance goals to satisfy their desire to best their peers in performance comparisons (Locke and Latham 1990; Spence and Helmreich 1983). Also, if the organizational climate is perceived as highly competitive, the salience of social comparison processes, which are central to competition (Festinger 1954; Kohn 1992), is increased. Employees’ awareness that their performances will be compared with those of their peers is likely to increase their sensitivity and concerns about their competence (Epstein and Harackiewicz 1992; Reeve and Deci 1996). Performance comparisons provide information about an employee’s competence and relative contribution to the organi-

zation, which can influence both the self-concept and judgments made by others. Employees' awareness that their performance will be compared with that of their peers is likely to motivate them to set higher goals to avoid negative performance evaluations.

Competitive employees are more sensitive than less competitive ones to the evaluative consequences of social comparison (Spence and Helmreich 1983). This predisposition is likely to be enacted to a greater extent when it is reinforced by the organization's practice of distributing rewards on the basis of competitive rankings. Thus, self-set goals are likely to be highest among competitive employees who perceive the organizational environment as highly competitive.

H<sub>1</sub>: Trait competitiveness and competitive psychological climate will be related to self-set goals in the pattern predicted by effect congruence. Trait competitiveness and competitive psychological climate both will be related positively to goal level. Furthermore, the two will interact, such that self-set goals are highest for competitive salespeople who perceive the organizational climate as highly competitive.

### Control Variables

In testing the effects of trait competitiveness and competitive psychological climate, we controlled statistically for other influences. We analyzed several covariates that have been found to be related to the choice of goal level or are relevant in this research context. These include several individual difference variables (self-efficacy, job involvement, locus of control, and conscientiousness) that have been identified as influences on goal level (e.g., Hollenbeck and Klein 1987; Phillips and Gully 1997). We also included a situational variable specific to this selling context (perceived strength of competition in the salesperson's territory).

*Self-efficacy.* Self-efficacy refers to people's confidence in their ability to perform well in a specific task domain (Bandura 1997). People who believe themselves to be capable are likely to set more challenging goals (Bandura 1997; Locke and Latham 1990). Self-efficacy has been found to be related strongly to the level of self-set goals (e.g., Phillips and Gully 1997).

*Job involvement.* Job involvement has been conceptualized primarily as people's psychological identification with their jobs (Brown 1996). The more people identify psychologically with their jobs, the more challenging their personal goals are likely to be. Although little research has analyzed job involvement in relation to goal levels, job involvement has been found to be related positively to effort, which, in turn, is related, both logically and empirically, to goal level (Brown and Leigh 1996; Locke and Latham 1990). Job involvement also has been found to be related positively to salesperson job performance (e.g., Cron and Slocum 1986).

*Locus of control.* Locus of control relates to the degree to which people see themselves as causal agents. People with an internal locus of control may set higher goals because they believe that achieving these goals depends on their own efforts and abilities rather than on uncontrollable externalities (Hollenbeck and Klein 1987; Phillips and Gully 1997).

*Conscientiousness.* Conscientiousness refers to a person's dependability and achievement. It has been found to be related strongly and positively to self-set goal level in a personal selling context (Barrick, Mount, and Strauss 1993).

*Territory competitiveness.* Because a sales goal must be achieved within an employee's territory, perceptions of external performance constraints are likely to be considered when salespeople choose performance goals (Locke et al. 1984). Chacko and McElroy (1983) observe that people set lower goals when they attribute previous low performance to stable, external causes (such as territory competitiveness). Therefore, when competition from other companies is perceived as strong, salespeople are likely to set lower goals because they have lower performance expectations than when external competition is perceived as weak.

### The Self-Set Goal-Performance Linkage

As is previously noted, many studies validate a positive relationship between goal level and work performance (e.g., Locke and Latham 1990; Mento, Steel, and Karren 1987). We expect that trait competitiveness and competitive psychological climate, individually and jointly, will be related positively to self-set goal level. Goal level, in turn, will be related positively to performance. We expect that the relationships between the competitiveness variables and performance will not be significant when the effects of self-set goal level are controlled statistically.

H<sub>2</sub>: Self-set goal level will be related positively to sales performance. The main and interactive effects of trait competitiveness and competitive psychological climate on performance will not be significant when the effects of self-set goal level are controlled.

## Method

### Sample

Study participants were salespeople who represent a medical supplies distributor operating in the western two-thirds of the United States. Salespeople were responsible for establishing and maintaining account relationships with physician practices in assigned geographic territories. On average, the study participants had worked for the company for more than 10 years. The average age of the salespeople was 39 years, 85% were men, and 88% were college graduates. They generally had enough experience to know how to execute effective goal-directed strategies in this relatively complex task. Compared with inexperienced salespeople, they were likely to have relatively accurate effort-performance expectancies (cf. Wotruba 1989). Salespeople were paid a commission on gross margin dollars and averaged \$43,000 in annual income. They generally worked independently of one another.

### Performance Context

The study was conducted in a situation conducive to goal setting that involved a product promotion sponsored by a supplier of power examination tables. Salespeople received bonuses of \$300 for each table they sold. Because salespeople could earn additional income for each unit they sold of

the promoted product, irrespective of how other salespeople performed, this could be classified as an "open-ended" incentive program. Open-ended programs are the most prevalent types of sales force promotions currently practiced (Murphy and Dacin 1998). In this situation, the level of mutually exclusive goal attainment was modest because, though every salesperson could win something, the highest awards and accolades went only to the top performers. Participating salespeople were aware that performance rankings for the promotion would be publicized through internal communications and that the top performers would be identified at the conclusion of the promotion.<sup>3</sup>

In accordance with the company's standard practices, the promotion was introduced to salespeople at a quarterly sales meeting. Management did not assign salespeople a specific goal, but it made it clear that each salesperson should sell at least one unit during the three-month promotional period. Management further encouraged goal setting by asking salespeople to give their managers a carefully considered estimate of how many units they believed they could sell. In addition, more specific goal setting might have been stimulated by our asking salespeople to complete a questionnaire, following a briefing on the product and promotion by sales management.

Because participation in the promotion constituted only one of the salespeople's responsibilities, we asked them a series of questions regarding the consequences of performance in the promotion. They indicated on four-point scales (1 = "not at all" and 4 = "a lot") the extent to which nine issues regarding their personal and organizational well-being were at stake in the promotion. Responses indicated moderate to high personal stakes related to personal satisfaction with performance (mean = 3.2), feelings about personal selling capabilities (mean = 3.1), and recognition from the company (mean = 3.0). Conversely, responses indicated that the salespeople perceived career advancement (mean = 2.1) and family financial well-being (mean = 2.2) as being only slightly at stake.<sup>4</sup> They considered their performance especially significant with respect to how they viewed their own capabilities and how others in the organization perceived them.

Our questionnaire included measures of trait competitiveness, competitive psychological climate, self-set goals for the promotion, and control variables. At the conclusion

of the promotion three months later, the actual number of units sold was recorded as the performance criterion. Of the distributor's 167-person sales force, we succeeded in matching completed questionnaires with final performance measures for 158 salespeople, which represented a 94.6% response rate.

## Measures

*Trait competitiveness.* We used a four-item measure of trait competitiveness developed by Helmreich and Spence (1978). The items are listed in the Appendix. The response format was a seven-point Likert scale anchored by "strongly disagree"/"strongly agree." Coefficient alpha was .84.

*Competitive psychological climate.* We developed a four-item measure of competitive psychological climate. The items were consistent with Kohn's (1992) description of structural competitiveness as the extent to which salespeople perceive their organizational status and well-being as dependent on performance rankings relative to peers. We pretested the items by asking a focus group of salespeople and managers from the organization to comment on the items. Responses indicated that the items were clear and unambiguous, face valid, and appropriate to the context. The items, measured on five-point Likert scales anchored by "strongly agree"/"strongly disagree," are reported in the Appendix. Coefficient alpha was .70.

*Goal level.* Prior to the start of the promotion, salespeople indicated the number of units they targeted as their sales goal. The average number was 3.2 units (s.d. = 1.39, range = 1–8).

*Performance.* The actual number of power tables sold during the 90-day promotion, according to the organization's sales records, was used to measure performance. The average number of units sold was 2.5 (s.d. = 2.23, range = 0–9).

*Control variables.* Self-efficacy was measured using procedures recommended by Lee and Bobko (1994). Study participants indicated whether they expected to achieve each of ten levels (from 1 to 10 units) of output sales performance ("yes" or "no") and how confident they were of attaining each level (100% certain to 0%). We summed the confidence ratings across the performance levels salespeople believed they could achieve (i.e., to which they indicated a yes response).

We used Lawler and Hall's (1970) four-item version of Lodahl and Kejner's (1965) scale to measure job involvement. The response format was a five-point Likert scale ("strongly agree" to "strongly disagree"). Coefficient alpha was .81. Locus of control was measured using Rotter's (1966) five-item scale with five-point Likert response formats ranging from "strongly agree" to "strongly disagree." Coefficient alpha was .78. Conscientiousness was measured by 45 items taken from the Personal Characteristics Inventory (Barrick and Mount 1993). The response format consisted of three-point Likert-type scales with "agree," "uncertain," and "disagree" options. Coefficient alpha was .88. Competitiveness of the salesperson's territory was mea-

<sup>3</sup>It is important to note that the focus of our study was not the structural competition created by this particular promotion but the motivational effects of trait competitiveness and competitive psychological climate. Although we study goal setting and performance in the context of a naturally occurring promotion that involved some (relatively low) degree of structural competition, our study questions focus on how trait competitiveness and competitive psychological climate relate to goal setting and performance, not on how specific promotions or contests should be conducted.

<sup>4</sup>Scheffe's test showed that the means for personal satisfaction with performance, feelings about personal selling capabilities, and recognition from the company are significantly different than the means for perceived career advancement and family financial well-being.



sured with four items developed for use in this study. The items, which used five-point Likert scale response formats anchored by “strongly agree”/“strongly disagree,” are reported in the Appendix. Coefficient alpha was .68.

### **Confirmatory Factor Analysis of Competitiveness Scales**

We conducted confirmatory factor analyses to establish the factorial and discriminant validity of trait competitiveness, competitive psychological climate, and territory competitiveness. A three-factor model was estimated with each item from the three scales loading on its intended factor. The model had an excellent fit ( $\chi^2 = 64.40$  [51 d.f.],  $p = .098$ , goodness-of-fit index = .94, comparative fit index = .97). All standardized loadings on the latent factors were significant and exceeded .50. Discriminant validity was assessed by comparing the fit of three different two-factor models with that of the three-factor model. This was done by sequentially constraining each of the interfactor correlations to equal 1.0 and comparing the resulting chi-square fit indices with that of the three-factor model. Significant decrements in fit indicated discriminant validity of the competitiveness constructs. The increase in the chi-square fit indices was highly significant in each case. The smallest was  $\chi^2 = 52.63$  (1 d.f.),  $p < .001$ . Means, standard deviations, and intercorrelations are reported in Table 1.

## **Results**

We tested the effects of trait competitiveness and competitive psychological climate on self-set goal level using hierarchical regression. We regressed goal level against the main effects of the competitiveness variables and the covariates. Then we included the interaction term in a second regression and examined the significance of the change in  $R^2$ . To minimize collinearity between the main effects of the competitiveness variables and their interaction while ensuring the interpretability of the interaction term, we transformed the raw independent variables to z-scores, as Aiken and West (1992) recommend. The unstandardized results of these analyses are reported in Table 2.<sup>5</sup>

As we report in Table 2, the main effects of trait competitiveness and competitive psychological climate were both positive and statistically significant. However, the results of the hierarchical analysis indicate that these main effects were qualified by a significant interaction between trait competitiveness and competitive psychological climate (incremental  $F = 10.75$ ,  $p < .01$ ).<sup>6</sup> The only control variable that was related significantly to goal level was self-efficacy. The model explained 55% of the variance in self-set goal level.

<sup>5</sup>The unstandardized output of the regressions on independent variables that have been converted to z-scores is actually standardized output.

<sup>6</sup>Because of their significant interaction effect, the main effects of the competitiveness variables must be interpreted as average effects over the range of the variables, rather than as constant effects (Aiken and West 1992).

To interpret the form of the interaction, we examined the regression weight of each of the competitiveness constructs at high and low levels of the other. This analysis tests (1) whether a competitive psychological climate has different effects on goal level for more and less competitive salespeople and (2) whether trait competitiveness has different effects on goal level at high and low levels of competitive psychological climate. We examined the regression weight of competitive psychological climate at one standard deviation above and one standard deviation below the mean of trait competitiveness. Similarly, we assessed the regression weight of trait competitiveness at one standard deviation above and one standard deviation below the mean of competitive psychological climate. Examining these “simple slopes” is analogous to analyzing simple main effects in ANOVA (Aiken and West 1992).

The results of this analysis were generally consistent with the effect congruence hypothesis ( $H_1$ ). Trait competitiveness was related significantly to goal level when the organizational climate was perceived as highly competitive ( $\beta = .287$ ,  $p < .001$ ) but not when the organizational climate was perceived as less competitive ( $\beta = -.01$ , n.s.). Similarly, competitive psychological climate was related significantly to goal level for highly competitive salespeople ( $\beta = .298$ ,  $p < .001$ ) but unrelated to goal level for less competitive salespeople ( $\beta = .008$ , n.s.).

We investigated the interaction effect further by partitioning the sample into groups that were above or below the medians of trait competitiveness and competitive psychological climate. We present the results in Figure 1. The Scheffe test indicated that the group that was high for both trait competitiveness and competitive psychological climate had a significantly higher mean goal level than any of the other groups ( $p < .01$ ). None of the other groups differed significantly from one another at  $p > .25$ .

### **Mediating Effect of Goal Level**

We assessed the mediating effect of goal level on the relationships between the competitiveness variables and performance. We did this by first regressing performance against all of the predictors used in the previous analysis. We then added self-set goal level to the model in a second regression (Baron and Kenny 1986). Although the correlations between the competitiveness variables and performance were strong and significant (see Table 1), in the first regression, only self-efficacy was related significantly to performance. This indicates that controlling for self-efficacy reduced the competitiveness–performance relationships to nonsignificance. When the self-set goal level was included in the regression, both self-set goal level and self-efficacy had significant effects.

The results of the goal level and performance analyses indicate that (1) goal level provides a linkage that relates trait competitiveness, competitive psychological climate, and their interaction to performance; (2) self-efficacy has strong direct and indirect effects on performance; and (3) the relationships between the competitiveness constructs and performance are not significant when the effects of self-efficacy are controlled.

TABLE 1  
Means, Standard Deviations, and Intercorrelations

Variables	Mean	Standard Deviation	Terr	JI	LC	CN	SE	SSG	P	TC	CPC	CI
Territory competitiveness (Terr)	15.7	2.39	(.68)									
Job involvement (JI)	12.1	3.22	.03	(.81)								
Locus of control (LC)	17.4	2.39	.12	.07	(.78)							
Conscientiousness (CN)	116.3	14.83	.03	.16	.22	(.88)						
Self-efficacy (SE)	340.5	164.00	.01	.12	.22	.21	(—)					
Self-set goal (SSG)	3.3	1.39	.03	.16	.20	.20	.72	(—)				
Performance (P)	2.8	2.23	.03	.12	.10	.19	.77	.69	(—)			
Trait competitiveness (TC)	22.1	2.61	.02	.30	.35	.21	.32	.44	.33	(.84)		
Competitive psychological climate (CPC)	14.5	3.40	.11	.31	.08	-.01	.26	.37	.28	.33	(.70)	
TC × CPC (CI)	2.9	9.50	.10	-.11	.27	.22	.12	.26	.07	.15	.12	(—)

Note:  $p < .05 = .18$ ;  $p < .01 = .24$ ; Coefficient alpha reported on the diagonal.



**TABLE 2**  
**Regressions of Self-Set Goal and Performance Against Predictor Variables**

Predictors	Self-Set Goal		Performance	
	Main Effects Only	Interaction Term Included	Self-Set Goal Not Included	Including Self-Set Goal
Job involvement	-.02	.01	.02	.01
Locus of control	.02	-.02	-.11	-.12
Conscientiousness	.04	.01	.07	.06
Self-efficacy	.78**	.78**	1.53**	1.13**
Competitive territory	-.02	-.03	-.04	-.03
Trait competitiveness	.17*	.18*	.13	.01
Competitive psychological climate	.21*	.19*	.09	.01
TC × CPC		.20**	-.03	-.09
Self-set goal level				.74**
Adjusted R <sup>2</sup>	.52	.55	.54	.60

\**p* < .05.

\*\**p* < .01.

## Discussion and Conclusions

The results show that the interaction between trait competitiveness and competitive psychological climate influences salespeople's self-set goals. The form of the interaction is consistent with the effect congruence hypothesis. The combination of high trait competitiveness and an organizational climate that was perceived as highly competitive led salespeople to set high goals. Salespeople who were low in trait competitiveness set relatively low goals, regardless of their perceptions of competitive psychological climate, whereas salespeople who were high in trait competitiveness set higher goals only when their perceptions of the organizational climate were congruent with their competitive disposition.

### Competition

Our results suggest that "healthy competition" is possible under certain circumstances.<sup>7</sup> Self-set goals were relatively high only when salespeople were high in trait competitiveness and the organizational climate was perceived as competitive. Congruence of competitive personality and climate led salespeople to set higher goals than being high on either variable alone.

<sup>7</sup>We conducted separate analyses to assess whether competition had positive or negative emotional/motivational effects on salespeople, depending on their performance in the promotion. We regressed measures of positive and negative emotions resulting from salespeople's performance in the promotion (taken from Bagozzi, Baumgartner, and Pieters 1998) against performance, trait competitiveness, competitive psychological climate, and all of the two- and three-way interactions involving these constructs. Significant interactions involving the competitiveness variables and performance would have indicated that competition amplified the emotional effects resulting from performance. The only significant predictor variable in both the positive and negative emotion analyses was performance. Neither the main nor the interactive effects of trait competitiveness or competitive psychological climate were significant in either analysis.

**FIGURE 1**  
**Cell Means for Sample Partitions**

		Competitive Climate		
		Low	High	
Trait Competitiveness	High	2.73 N = 48	2.74 N = 27	2.73
	Low	2.96 N = 24	4.17 N = 58	3.82
		2.81	3.72	

The results suggest that a combination of recruiting competitive salespeople and developing management practices that foster a competitive organizational climate can result in more effective goal setting and better performance. In this context, the combination of recruiting competitive salespeople and fostering intraorganizational competition enhances motivation and performance, whereas neither alone is sufficient to influence goal setting and performance.

### Self-Set Goals

Our results reinforce the importance of goal setting to achieving high performance. Salespeople who set more ambitious goals perform better. Setting specific, challenging goals is instrumental in achieving high performance. Trait competitiveness, competitive psychological climate, their interaction, and self-efficacy all motivate salespeople to set higher goals. Through their influence on goal levels, all contribute to high performance.

The strong link between goal level and performance suggests a possible explanation for the inconsistent results of previous competitiveness research. The competitiveness variables influence performance only indirectly through

their relationship with goal level. The direct effects of the competitiveness variables on performance are not significant when self-efficacy effects are controlled. Goal level provides a linkage that relates the competitiveness variables and self-efficacy to performance. (Self-efficacy also has a strong direct effect on performance.)

The indirect relationships between the competitiveness variables and performance suggest that significant effects might not exist when goal setting is ineffective or nonexistent. Unless salespeople are coached by management to set specific, challenging goals, they may set ineffective, "do-your-best" goals or neglect to set goals at all. In these situations, trait competitiveness might not be related to performance because the linkage provided by specific, challenging goals is absent.

### **Self-Efficacy**

Self-efficacy is related strongly to both goal level and performance. Few studies in sales force contexts have investigated how self-efficacy influences goal setting and performance. We find that high (compared with low) self-efficacy salespeople set higher goals and perform better. The strength of the self-efficacy–performance relationship is particularly impressive given that measures of the two constructs were separated temporally by a three-month interval and were quite different in form.

These findings have significant implications for sales managers, because research indicates that self-efficacy can be learned. Gist and Mitchell (1992) suggest that self-efficacy can be enhanced through experience of success, modeling oneself after successful performers, and verbal persuasion. Eden and Aviram (1993) demonstrate that self-efficacy can be improved through training. Breaking selling processes down into sequences of subtasks to build mastery and confidence in the performance of each behavioral element may be an effective way of building self-efficacy (Valacher and Wegner 1985). Showcasing successful role models also can be useful. Our research suggests that focused training that succeeds in building self-efficacy can result in important motivation and performance gains.

### **Limitations and Research Directions**

In interpreting our results, it is important to keep the study context in mind. First, these straight-commission salespeople worked independently, pursuing a short-term output performance objective. In these circumstances, competition is particularly likely to produce positive motivational effects because little interaction among coworkers is required. Competitiveness (both trait and situational) may have fewer positive effects in selling situations in which performance objectives are longer term and more contingent on cooperative efforts, such as team selling. Second, the performance context had only a moderate level of mutually exclusive goal attainment (i.e., everyone could win something, even though top awards and accolades were available only to top performers). Third, the study participants rated themselves as fairly competitive (average, 5.5 of 7) but rated the organizational environment as only moderately competitive (average, 3.5 of 5). Different results might be obtained for less

competitive people in more competitive environments.

A naturally occurring range restriction on self-set goals may have influenced the observed effects of trait competitiveness and competitive psychological climate. Goal levels are constrained by salespeople's perceptions of the number of units they realistically can expect to sell. Even so, range restriction cannot account for the interactive effects of trait competitiveness and competitive psychological climate. Also, this constraint will occur in most natural contexts.

The variances of trait competitiveness and competitive psychological climate also may have been restricted somewhat by (1) self-selection to an organization with a climate that was compatible with the salespeople's personalities and (2) the limitation of our sample to a single organization. Even so, these factors would weigh against, rather than in favor of, confirmation of the hypotheses.

In light of our findings, additional research is needed to investigate competition and person  $\times$  situation interactions in the sales force in greater detail. Studies conducted in different task and organizational contexts are needed to identify the boundary conditions of these positive effects of intraorganizational competition. It also would be useful for further research to explore the effects of competition on other work outcomes, such as cooperation, or-

## **APPENDIX**

### **Measurement Items for Trait Competitiveness, Competitive Psychological Climate, and Competitive Territory Scales**

#### **Trait Competitiveness ( $\alpha = .84$ )**

- TC1. I enjoy working in situations involving competition with others.
- TC2. It is important to me to perform better than others on a task.
- TC3. I feel that winning is important in both work and games.
- TC4. I try harder when I am in competition with other people.

#### **Competitive Psychological Climate ( $\alpha = .70$ )**

- CPC1. My manager frequently compares my results with those of other salespeople.
- CPC2. The amount of recognition you get in this company depends on how your sales rank compared to other salespeople.
- CPC3. Everybody is concerned with finishing at the top of the sales rankings.
- CPC4. My coworkers frequently compare their results with mine.

#### **Territory Competition ( $\alpha = .68$ )**

- Terr1. Customers in this territory are generally very price sensitive.
- Terr2. Competitors are aggressively discounting prices.
- Terr3. Competitors are aggressively promoting special programs and products.
- Terr4. Competitors are aggressively trying to increase market share in my territory.

ganizational citizenship behavior, long- versus short-term orientation, quality of customer relationships, and turnover. For example, it would be interesting to study congruence between personality and organizational climate as a basis for self-selection to and attrition from particular sales forces. Such studies may identify other important boundary conditions of the positive motivational effects of competition.

In conclusion, our study demonstrates that the combination of high trait competitiveness and a competitive psychological climate contributes to higher goals and better performance. These findings have significant, direct implications for both theory and management. They also suggest the potential utility of person  $\times$  situation research to provide additional insights into sales force motivation and performance in additional research.

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