

CHAPTER

10

Identity in the Competitive Market: The Effects of Interorganizational Competition on Identity- Based Organizational Commitment



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The relationships employees form with their employing organizations has long been of interest to organizational researchers. As voluntary turnover rates across industries continue to rise in the United States (Bureau of Labor, 2004; Monks & Pizer, 1998), the question of what binds an employee to his or her employing organization, and, more specifically, what shapes an employee's sense of belonging to an employing organization becomes increasingly consequential.

Understanding why and when an employee identifies with and envisions having attributes in common with his or her employing organization can provide insight into the factors that bind employees to organizations. When employees identify with their organization, they intend to, and actually do, remain with their existing organization longer (O'Reilly & Chatman, 1986). Further, this organizational identification increases employees' sense of well-being (Weiss, 1990), the resilience with which organizations and individuals assimilate to change (Pfeffer, 1994), and even firm-level performance (Castanzias & Helfat, 1991). In addition, employees whose commitment to their organization is based on identification with the organization are more satisfied (Bateman & Strasses, 1984); more motivated and involved (Farrell & Rusbult, 1981); perform better (Angle & Perry, 1981); are less likely to be tardy (Angle & Perry, 1981), absent (Koch & Steers, 1978), or leave the firm (Mowday, Steers, & Porter, 1979); express positive affect at work (O'Reilly & Caldwell, 1980); and exhibit more prosocial behavior (O'Reilly & Chatman, 1986). The implication of this research for managers who want to attract and retain highly motivated workers is that they must understand the factors within and outside the organization that affect employees' identification and ensuing commitment to their firm.

There is a long tradition of research in organizational behavior that has identified various characteristics, such as the requirements of their job, their personality, and the roles they play, that influence a person's commitment to their firm (see Mathieu & Zajac, 1990, for a review). Most of this research, however, considers relationships between individual level, or microconstructs, and commitment (Glisson & Durick, 1988). Some researchers have examined organizational level influences on identification and commitment, but most have focused on structural aspects of the organization, such as age and size (e.g., Lincoln & Kalleberg, 1996). More recent research has explored the role of employee attitudes, and specifically employees' identity-based commitment to their firm, in strategy execution (Lado & Wilson, 1994). Less is known, however, about the effects of dynamic organizational factors, especially those arising from the environment, on individual commitment. Here, we explore the competition an organization faces from others in its market as one such factor that may influence an employee's relationship to his or her employing organization.

Interorganizational competition is a ubiquitous factor among firms in the private sector. Such competition surely influences employees' individual level attitudes and behaviors and although some researchers have focused on organizations' efforts to adjust to increased competition (e.g., Heidi & Stump, 1995), few have studied the effects that increased competition may have on such attitudes and behaviors (Khandwalla, 1973). Researchers have more generally noted the importance of exploring relationships between microlevel and organizational level factors and individual attitudes and behavior, and yet few have actually done so (e.g., Mowday & Sutton, 1993).

In this chapter, we investigate the effects of interorganizational competition on individual employees' level of identity-based commitment to their firm. We

conduct two separate tests of our hypotheses by assessing levels of interorganizational competition and linking interorganizational competition to employees' commitment in two very different samples: employees of eight public accounting firms, and employees working in a broad range of firms participating in a national survey. We conclude by discussing the importance of considering the influence of macro-organizational characteristics on individual attitudes and behaviors.

ORGANIZATIONAL IDENTIFICATION AND EMPLOYEES' COMMITMENT

Organizational identification, or the extent to which one identifies with his or her employing organization, refers to a "cognitive linking between the definition of the organization and the definition of the self" (Dutton, Dukerich, & Harquail, 1994, p. 242), or, as Tyler and Blader (2000, p. 15) described it, a "merger of self and group."

This linkage between the individual and the organization serves, among other things, as a basis for employees' commitment to their employing organization (Hall & Schneider, 1972; O'Reilly & Chatman, 1986). Organizational commitment is a broad term describing an individual's attachment to an organization (e.g., Buchanan, 1974; Kanter, 1968). It is a multidimensional construct, including distinct psychological bases. Specifically, O'Reilly and Chatman (1986), and Caldwell, Chatman, and O'Reilly (1990), distinguished attachment based on notions of identification and internalization from attachment based on instrumental exchange.

We focus on identity-based commitment, specifically highlighting what Caldwell et al. (1990) called "normative commitment." Normative commitment is based on a person's identification with what the organization stands for as well as internalization of the organization's norms and values. Normative commitment is not a function of projected tangible returns; rather it describes a state in which the organization's objectives and values become part of the individual's self-defined identity and behaviors that reflect the goals and values of the organization become intrinsically rewarding (Kelman, 1958). The more an individual identifies with the organization and the more he or she has internalized the organization's values, the higher the individual's normative commitment to the organization. Thus identification is an essential component and basis of normative commitment, but identification and commitment are not the same.

INTERORGANIZATIONAL COMPETITION

Competition occurs when two or more organizations vie for a common objective or a common set of limited resources. For example, active rivalries for market share between firms may include price competition, advertising battles, new product introduction, or increased customer service or warranties (Porter, 1980,

p. 17). This notion of rivalry between peers is inherent in interorganizational competition; it occurs in a designated environment with limited resources to be shared among competitors. Competition is, therefore, a threat to organizations (Hannan & Carroll, 1992; Simmel, 1965), prompting adaptive responses from organizations seeking to survive it.

Competition between firms takes many forms. However, most generally, when two or more organizations vie for a common set of limited resources, they face a level of competition that is a function of activities of others in their market. Because firms vary in market strategies, the level of competition an organization faces is not necessarily equivalent to the levels faced by others in the same market (McPherson, 1993). For example, firms recruiting from MBA schools compete with one another for newly minted MBA graduates. Generally, the more hiring firms, the greater the competition among them to find qualified candidates. Nonetheless, a firm searching specifically for MBAs with pharmaceutical experience may face very different competition from other recruiters at the school than a firm looking for business generalists. Many factors distort the symmetry of competition levels between two organizations, including their size and time-of-entry-to-market (Carroll & Harrison, 1994), taking on a specialist or generalist strategy (McPherson, 1993), their information technology systems (Mata, Fuerst, & Barney, 1995), and the number of distinct markets in which the organization competes (Haveman, Baum, & Keister, 1996). For all of these factors, the greater the number of competitors in a designated market space, the higher the level of competition faced by each organization within that space. That is, an organization's level of competition can be conceptualized as a function of the overlap between its market domain and the market domain of its competitor(s) (Baum & Singh, 1994; Haveman et al., 1996).

Regardless of the specific level, interorganizational competition is usually an important factor shaping an organization's operating strategy, motivating it to look for sustainable competitive advantages, from, for example, new information technology (Mata et al., 1995) or strategic alliances (Rai, Borah, & Ramaprasad, 1996). Competitive threats therefore usually affect leaders' decisions about the organization's ongoing internal operations. For organizational leaders, competition represents "turbulence, stress, risk and uncertainty" (Khandwalla, 1973, p. 285).

THEORETICAL BACKGROUND AND HYPOTHESES

In the face of a competitive threat, organizations need to simultaneously address potentially antagonistic priorities: First, they need to be creative in formulating and adjusting their market strategy to better or alternatively differentiate themselves from the competition, and second, they need to manage internal controls to promote efficient operations and execution of strategy (Tushman & O'Reilly, 1997). For example, Khandwalla (1973) found that with increased product competition threatening their organizations, management teams increased both

delegation of authority to lower levels within the organization on such matters as strategy and pricing as well as the use of management controls such as production and inventory controls, internal audits, and staff evaluations.

How might such responses affect employees' identity-based commitment to their firms? The tendency to identify with one's organization is influenced by its distinctiveness, prestige, and the salience of outgroups (Ashforth & Mael, 1989). And, internalization intensifies with understanding and acceptance of the organization's values and beliefs (Salancik, 1977).

An effective competitive strategy generally entails differentiating the organization from its competitors (Porter, 1980). As an organization differentiates both itself and its products or services, it will increase the distinctiveness and salience of outgroups, and therefore, enhance employees' identification with their organization. In a study in schools, Friedkin and Simpson (1985) found that competition between subunits increased high school principals' feelings of identification to their subunit. Further, research on small groups has shown that competitive threats to a group and its identity increase feelings of liking and social bonds among group members (Sherif & Sherif, 1953), in-group bias (Taylor & Moriarty, 1987), and ethnocentric orientation (Grant, 1993).

Differentiation also makes an organization's core values and beliefs more salient, because it involves restating distinctive organizational values and beliefs to members, customers, and suppliers. Such reiteration of values and beliefs, in combination with increased identification with the organization, is likely to intensify internalization of those values and beliefs (Salancik, 1977). Thus, efforts to differentiate a firm from its competitors in the face of competitive threat will likely positively influence employees' feelings of identification and commitment to the firm.

These positive effects of interorganizational competition on normative commitment may, however, turn negative at higher levels of competition. Specifically, the effects of increased managerial controls may overtake the contributions of attempts to differentiate the organization in shaping employees' commitment to the organization. As demonstrated in numerous organizational ecology studies, higher levels of competition, as from facing a greater number of competitors vying for limited resources, present a more dire threat to organizations, including, ultimately, the possibility of organizational failure (Hannan & Carroll, 1992).

Creative attempts to differentiate one firm from its competitors may require resources that are less available when competition levels are high enough to threaten the organization's ongoing existence. When competitive threats are great, management is likely to attend foremost to survival through conservation and only the most efficient utilization of resources. That is, when competitors are gaining market share or hiring the best labor, for example, to the point of threatening an organization's ability to continue operating, the effects on the organization likely include restricted information processing capacity, increased behavioral controls, and increased efforts to conserve resources (Khandwalla, 1973, Staw, Sandelands, & Dutton, 1981). Drastic resource management tactics

that impact employees, such as layoffs or not fully funding the employee payroll, are more likely under such threat.

Task failure has been found to reduce intragroup cohesiveness in small groups (Zander, 1979). The same is likely to be true of formal organizations facing possible failure or defeat. For example, survivors of layoffs have been found to exhibit decreases in morale and productivity (Brockner, 1992). And, examining organizational decline, Sutton (1983) found that the predominant emotions at the time of organizational failure, even among the most highly committed employees, were fear, sorrow, and disengagement.

When severe competitive threats lead organizations to commit acts viewed as harmful or damaging, employees are likely to try to disassociate themselves from their organization to reduce their identification level (e.g., Chatman, Bell, & Staw, 1986). Such actions by the organization may also reflect deviations from the stated values of the company, disrupting the internalization of such values, and thus, the normative commitment among employees. Taken together, the effects of attempting to increase both differentiation and control in the face of competition suggest a curvilinear relationship between interorganizational competition and normative commitment such that the following:

Hypothesis 1 (H1). Low to moderate levels of interorganizational competition will be positively related to normative commitment among employees, whereas higher levels of interorganization competition will be negatively related to normative commitment.

The relationship between interorganizational competition and individual level normative commitment may also be influenced by each employee's orientation toward competition. Specifically, interorganizational competition may influence individuals with a more competitive orientation more than those who are less competitively oriented. Following others, we define a competitive orientation as a pattern of values or preferences with regard to competition (e.g., Liebrand & McClintock, 1988). People with a competitive orientation are highly concerned about their well-being compared to others (Van Lange, DeBruin, Otten, & Joireman, 1997). Ironically, competitive people can be viewed as more similar to altruistic people than to either individualistic or collectivistic people (Liebrand & McClintock, 1988). This is because both competitive and altruistic people are willing to take losses themselves in order to affect others' outcomes. The difference is that competitive people would do so to reduce others' outcomes, whereas altruists would do so to ensure that others gain.

Competition, between groups or between individuals, elicits social comparison among individuals engaged in the competition (Johnson & Johnson, 1989). Further, when competitively oriented people engage in competition, they are more likely to set higher goals for themselves and to have higher self-efficacy

(Lerner & Locke, 1995). In comparing their organization to rival organizations, competitively oriented people are likely to evaluate their own organization more positively. Additionally, competitively oriented people tend to evaluate the results of competitive efforts in terms of their personal ability (Ames & Ames, 1984), making the stakes of interorganizational competition more meaningful for them personally than for less competitive individuals. Taken together, these aspects of competitively oriented individuals suggest that they are likely to embrace the organization's identity and values more intensely when engaged in low to moderate levels of interorganizational competition. That is, for people who are highly competitive, moderate interorganizational competition should increase their normative commitment. More generally, we hypothesize that a person's competitive orientation will moderate the relationship between interorganizational competition and normative commitment:

Hypothesis 2 (H2). A stronger positive relationship between low through moderate levels of interorganizational competition and normative commitment will exist for more competitively oriented people compared to less competitive people.

METHOD

Our first test of the hypotheses were conducted using data gathered from eight firms that comprised over 91% of the public accounting market share at the time of the study. This study was conducted in the West Coast offices of the eight largest U.S. public accounting firms. The participating firms were similar in structure, business activities, reward systems, and job characteristics and responsibilities, providing a naturally controlled environment for examining the effects of competition on commitment. We tested both hypotheses with these data. To augment the generalizability of the accounting firm study, we conducted a separate second test of our primary hypothesis (H1) using a different sample. The second data set complemented the first in that it included more variation both in the backgrounds of participating individuals as well as in the organizations and industries in which they were employed. We selected the National Organizations Survey (NOS), which linked information about employing organizations to respondents to the General Social Survey in 1991 (Kalleberg, Knoke, Marsden, & Spaeth, 1991). The NOS did not include individual level competitive orientation data, so we were not able to test our hypothesis involving individual differences (H2) using these data.

Procedure and Samples

For the accounting firm study, data from 171 first-year audit staff members were collected at two time periods; "time 1" occurred early in the staff accountants'

tenure with the firm and "time 2" occurred 10 to 12 months later (see Chatman, 1991, for additional information on this sample). The response rate at time 1 ranged, by firm, from 75% to 100% with five of the eight firms having 100% participation. At time 2, seven of the eight firms participated, for a total response rate at time 2 of 71% ($n = 122$). Across both time periods, 53% of the sample was female, they averaged 24 years old, all had bachelor's degrees and 25% had master's degrees. All participants in this study entered their firm with the job title of staff accountant and were paid nearly identical salaries.

Our second data source, the NOS, provided a representative sample of United States work organizations. Employed respondents in the 1991 General Social Survey gave identification and location information about their employers, and an informant from the work establishment (either the personnel director or the chief executive officer) was interviewed by telephone or by mail questionnaire. The NOS consists of data from 727 such employers. Topics covered included employer staffing procedures, internal job ladders, promotion chains, job training programs, employee benefits and incentives, and structural characteristics of organizations (Kalleberg et al, 1991). These data were linked, by employee, to individual level responses, such as organizational commitment and job satisfaction, to the General Social Survey from the same year.

Independent Variables

Interorganizational Competition. In the accounting firm study, we used overlap density to assess interorganizational competition (Haveman et al, 1996). Overlap density is a summary measure of the number of competitors a firm faces in each industry, across the customer industries in which it participates. The overlap density for each accounting firm (i) in each industry in which they participate (m) is the sum, across all eight major firms in the industry, of the domain overlap weights, w_{ij} ,

$$\text{Overlap Density}_i = Sw_{ij} = S_{ij}[S_m (D_{im} \times D_{jm})/SD_{im}]$$

where D_{im} equals 1 if firm i invests in industry m and zero otherwise and D_{jm} equals 1 if firm j invests in industry m and zero otherwise. The number of industries in which firm i meets other firms, j , is aggregated and scaled by the number of industries in which firm i operates. When overlap density is zero, no competition exists between the focal organization and any other organization in the population. When overlap density equals population density (8 in the case of the accounting firms), the focal organization faces the highest level of competition.

Overlap density for the participating accounting firms was calculated across the 40 industries in which there were at least 10 companies audited by Big 8 firms

in that year¹. U.S. market share per firm per was calculated from the 1988 COMPUSTAT tape (see Minyard & Tabor, 1991, for a complete description). Following Haveman et al (1996), we set a minimum threshold of 1% market share to indicate presence in an industry. Because individuals are the unit of analysis in this study, the firm level of competition is assigned to every individual in the organization. Interorganizational competition levels for the firms in this study ranged from 6.1 to 6.4 ($x = 6.24$, $SD = .07$). This relatively small variation is not surprising given the general homogeneity within this industry (e.g., Chatman & Jehn, 1994). Further, typical concerns about restriction of range and lack of within-industry generalizability are moderated by the fact that the participating firms, together, controlled the vast majority of market share (91%) in the public accounting industry at the time this study was conducted (Chatman, 1991). The relatively small variance in competition does, however, allow for a conservative test of our hypotheses.

In the NOS study, interorganizational competition was indicated by employers' responses to the following question: "How much competition would you say there is in (ORG's) main market or service area?" Responses to this question ranged on a 4-point scale from *none* (1) to *a great deal* (4), with a mean level of competition faced by organizations in this study of 3.31 ($SD = .83$).

Individual Orientation Toward Competitiveness. Participants in the accounting firm study completed the Organizational Culture Profile, a valid and reliable Q-sort profile comparison process (O'Reilly, Chatman, & Caldwell, 1991). In the Q-sort, individuals were presented with 54 "value statements" assessing attitudes toward such characteristics as being creative, having respect for individuals, or being flexible. Each participant sorted the value statements according to how desirable he or she would find the value to be in an employing organization. The sorting ranged from category (1) *least desirable* to category (9) *most desirable*. We selected items that were shown, in a factor analysis, to load on a competitiveness factor in previous research (O'Reilly et al, 1991). We replicated the original factor analysis structure, and then factor analyzed the five items that loaded on the competitiveness factor using a principal component analysis and a varimax rotation. One competitiveness factor emerged defined by all five items (each loading over .50). The factor had an eigenvalue of 2.12 and accounted for 42.39% of the total variance explained. The five items, being competitive, being aggressive, being quick to take advantage of opportunities, risk taking, and being innovative, have a Cronbach's alpha of .66. We calculated the mean of these five items to form a single variable indicating an individual's orientation toward

¹The minimum of 10 companies follows from that established by Minyard and Taber (1991) to avoid unreasonable results from too few client firms in an industry.

competition, with a higher value indicating a greater preference for, or value placed on, competition ($x = 4.89$, $SD = 1.13$).

Dependent Variable

Normative Commitment. In the accounting firm study, commitment was measured with Caldwell et al's (1990) 12-item scale pertaining to two types of commitment, normative and instrumental commitment. A principal components factor analysis with varimax rotation yielded two distinct factors, corresponding to the two types of commitment. The first factor included eight items that loaded greater than .60 and represented normative commitment. The normative commitment scale included such statements as "I find that my values and this firm's values are very similar," "Since entering this firm, my personal values have become more similar to those represented by this firm," and "I talk up this firm to my friends as a great organization to be a part of" (see Caldwell et al, 1990, for a complete description of the factor analysis and reliability and validity properties of this scale).

In the NOS study, participants' responses to survey questions indicated commitment levels. Normative commitment was measured as the average of each participant's responses to six questions, including "my values and the organization's values are very similar," "I'm proud to be working for this organization," and "I feel very little loyalty to this organization" (reverse coded). The Cronbach's alpha for the six questions was .79.

Control Variables

Sex and tenure were entered as control variables in commitment analyses in both studies as they relate to identification and commitment (Mathieu & Zajac, 1990). In the accounting firm study, sex was reported by participants on the survey at time 1 and tenure was calculated in years from participants' start date. Sex and tenure were both self-reported in the NOS. Organizational size has also been shown to affect commitment (Mowday, Porter, & Dubin, 1974). In the accounting firm study, size was assessed both as the number of employees in the entire firm, and by number of employees in the relevant West Coast office. In the NOS, organizational size was measured as the number of full-time employees, as indicated by the Human Resource representative or CEO of the participating organization. An employee's feelings about his or her job are likely to affect identification with an organization, so we controlled for job satisfaction in our analyses of normative commitment. Participants in the accounting firm study responded to the Faces Scale (Kunin, 1955) to indicate their overall job satisfaction. They selected the drawing of a face from among seven options, ranging from dissatisfied to satisfied, which best indicated how they felt about their job in general. Job satisfaction was self-reported in the NOS on a scale of 1 (*low*) to 4 (*high*). In the NOS

study, we also controlled for the participating organization's industry, based on categorizations in the data set by the 1980 Standard Industrial Classification (SIC) code. We categorized the industries into eight groups, according to the first two digits of the industry code, and created dummy variables for presence in each of these eight industries.

Analysis

Because the accounting firm study analyzes respondents distributed among relatively few firms, there is a possibility that any group (firm) effects related to the dependent variable will be incorrectly attributed to a group level explanatory variable (e.g., interorganizational competition level, in this case). Ordinary least squares (OLS) regression is inappropriate for models drawn from a population with such grouped structure, as regression errors are often correlated within groups and OLS standard errors tend to have a substantial downward bias (Moulton, 1986). Therefore, we used random effects modeling in analyses of these data to get a purer measure of the effects of interorganizational competition on commitment levels. Random effects estimation divides the OLS regression error into that which is due to variation by individuals and that due to group (firm) effects and then generates coefficient estimates of meaningful explanatory variables, which are free from the random group effects. Random effects in this analysis were based on the number of the firm (1-7) to which the participant belonged. We conducted Hausman tests of random effects versus fixed effects for the chi-squared values for each equation and found in each case that the random effects modeling was appropriate (Hausman, 1978). For the NOS study, we used hierarchical linear regression for the analysis of normative commitment.

RESULTS

Descriptive statistics and correlations among the study variables are reported in Tables 10.1 (accounting firm study) and 10.2 (NOS study).

Effects of Interorganization Competition on Normative Commitment

In H1, we predicted that low to moderate levels of interorganizational competition would be positively related to normative commitment among employees, whereas higher levels of interorganization competition would be negatively related to normative commitment. We tested this hypothesis in equations 1 and 2 on Table 10.3 in the accounting firm study and the NOS study, respectively.

In both studies, the linear interorganizational competition term is positively associated with normative commitment ($b = 694.28$, $p < .01$, in the accounting

TABLE 10.1
Means, Standard Deviations, and Correlation Among Accounting Firm Study Variables

	N	\bar{X}	SD	1	2	3	4	5	6
Normative commitment (time 2)	114	0.00	1.00	-					
Job satisfaction (time 2)	122	5.09	1.30	.58**	-				
Tenure	126	0.75	0.16	.06	.10				
Sex (<i>female</i> = 1, <i>male</i> = 0)	171	53%		-.02	-.01	-.20*			
Individual competitiveness	167	4.89	1.13	.22*	.07	-.04	-.08		
Organizational size	171	398.94	139.55	-.02	-.05	.07	.28**	.04	-
Interorganizational competition	171	6.24	0.07	-.03	.02	-.20*	-.15	.04	-.55*

* $p < .05$. ** $p < .01$.

TABLE 10.2
Means, Standard Deviations, and Correlation Among National Organizations Survey Study Variables

	N	\bar{X}	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Normative commitment	479	2.87	.55	-													
Job satisfaction	482	3.35	.78	.42**	-												
Tenure	151	6.34	7.12	.06	.11	-											
Sex (1 = female)	727	48%	.50	-.06	-.08	-.17*	-										
Organizational size	722	622	2356	-.08	-.09	-.12	-.05	-									
Interorganizational competition	614	3.31	.83	-.03	-.03	-.12	-.06	.00	-								
Agriculture, forestry, and fisheries industry	669	7%	.26	.10*	.06	.00	-.22**	-.07	.02	-							
Manufacturing industry	669	5%	.22	-.01	.03	.06	-.02	-.02	.02	-.07	-						
Manufacturing industry	669	6%	.24	-.09	-.06	.04	-.11**	.01	.11**	-.07	-.06	-					
Manufacturing industry	669	7%	.25	.00	.02	-.12	-.15**	.19**	.08	-.08*	-.06	-.07	-				
Transportation, utilities, and communications industry	669	10%	.30	.04	.00	.05	-.16**	.10*	-.03	-.10*	-.08*	-.09*	-.09*	-			
Wholesale industry	669	4%	.20	.07	-.01	-.01	.06	-.04	.08	-.06	-.05	-.05	-.06	-.07	-		
Retail trade industry	669	12%	.33	.01	-.09	-.01	.06	-.09*	.04	-.11**	-.09*	-.10*	-.10**	-.13**	-.08*	-	
Finance, insurance, real estate, business services industry.	669	18%	.38	.04	.02	-.07	.08*	-.06	.06	-.13**	-.11**	-.12**	-.13**	-.16**	-.10*	-.18**	-
Entertainment industry	669	30%	.46	-.10*	.03	.04	.29**	.01	-.23**	-.19**	-.15**	-.17**	-.18**	-.22**	-.13**	-.25**	-.31**

* $p < .05$ ** $p < .01$.

TABLE 10.3
 Predicting Normative Commitment from Competition
 Accounting Firm and National Organizations Survey (NOS) Studies

	1 Normative Commitment (Accounting Firms)	2 Normative Commitment (NOS)	3 Normative Commitment (Accounting Firms)
Individual level controls			
Tenure (in years)	-0.08	-0.01	-0.02
Sex (<i>female</i> = 1)	-0.04	-0.09	0.01
Job satisfaction	0.44**	0.46**	0.46**
Individual competitiveness	-	-	13.76*
Change in R ²	-	0.23	-
Adjusted R ²	-	0.21	-
Organizational level controls			
Organizational size	0.00	-0.09	0.00
Industry - Agriculture, forestry, fisheries	-	-0.11	-
Industry - Manufacturing (1)	-	-0.05	-
Industry - Manufacturing (2)	-	-0.01	-
Industry - Manufacturing (3)	-	0.12	-
Industry - Transportation, communication, utilities	-	0.15	-
Industry - Wholesale	-	0.31**	-
Industry - Retail trade	-	0.15	-
Industry - Finance, insurance, real estate services	-	0.17+	-
Change in R ²	-	0.16	-
Adjusted R ²	-	0.32	-
Organization level variables			
Interorganizational competition	694.28**	1.09*	638.26**
Interorganizational competition squared	-55.30**	-1.17*	-49.99**
Firm (group effects)	-0.04	-	-0.02
Change in R ²	-	0.03	-
Adjusted R ²	-	0.35	-
Interaction			
Individual Competitiveness	-	-	-
Inter-Organizational Competition	-	-	-2.17*
Full equation <i>F</i> ratio	-	5.30**	-
Full equation R ²	0.38	0.43	0.45
Adjusted R ²	0.34	-	0.40
<i>N</i>	109	114	109
Hausman test chi-squared ²	5.32	-	3.82

Note. Entries are unstandardized coefficients, (standard errors). Hausman test checks the appropriateness of random effects estimation for models 1 and 3. Significant chi-squared values indicate that random effects is not appropriate.

+*p* < .10;

**p* < .05;

***p* < .01; (one-tailed tests).

firm study; and $b = 1.09$, $p < .05$, in the NOS study), and the squared competition coefficient shows a negative effect on normative commitment ($b = -55.30$, $p < .01$, in the accounting firm study; and $b = -1.17$, $p < .05$, in the NOS study). Although these coefficients indicate initial support for the curvilinear effect predicted in our hypotheses, we used a partial F statistic to test the significance of the combined effect of the highly correlated linear and squared terms (Cohen & Cohen, 1983). In both studies, the partial F statistic associated with the effect of the competition variables on normative commitment was highly significant ($F = 8.81$, $p < .01$, in the accounting firm study; and $F = 7.86$, $p < .01$, in the NOS study). Taken together, these results offer support for H1. It is particularly notable that the predicted curvilinear effects emerge in separate analyses of two very different data sets. The accounting firm and NOS studies offer two highly divergent types of data sets, contrasting data collection approaches, and focusing both on one highly concentrated industry as well as on responses from people working in an array of industries and organizations. H2 predicted an interaction between individual competitiveness and interorganizational competition, such that competitively oriented individuals would be more normatively committed than would less competitive individuals. These results appear in equation 3 in Table 10.3. Although individual competitiveness had a significant main effect on normative commitment ($b = 13.76$, $p < .05$), the coefficient of the significant interaction of individual competitiveness and organizational competition is negative ($b = -2.17$, $p < .05$), the opposite of the predicted direction. We analyzed the form of this significant interaction using a slope analysis (Schoonhoven, 1981) over the range of low to moderate levels of competition.

To examine the different effects of competition on competitive versus non-competitive individuals' level of normative commitment over the range of competition, we calculated the normative commitment levels for highly competitive (2 standard deviations above the mean, or 7.15) and highly noncompetitive (2 standard deviations below the mean, or 2.63) people at moderate (the mean, or 6.24) and low (2 standard deviations below the mean, or 6.10) competition levels. Following Schoonhoven (1981), we used the beta coefficients from our regression results to calculate normative commitment levels for the different combinations of high and low competition and commitment. Predicted levels of normative commitment are in the cells shown in Figure 10.1.

		Inter-organizational Competition	
		Low	Moderate
Individual Competitiveness	Low	1.37	.58
	High	3.74	1.57

Figure 10.1 Predicted levels of organizational commitment for high- and low-competitively oriented individuals experiencing low or moderate inter-organizational competition.

Figure 10.2 illustrates the graphical form of the interaction, based on the predicted values of normative commitment in the cells shown in Figure 10.1. The

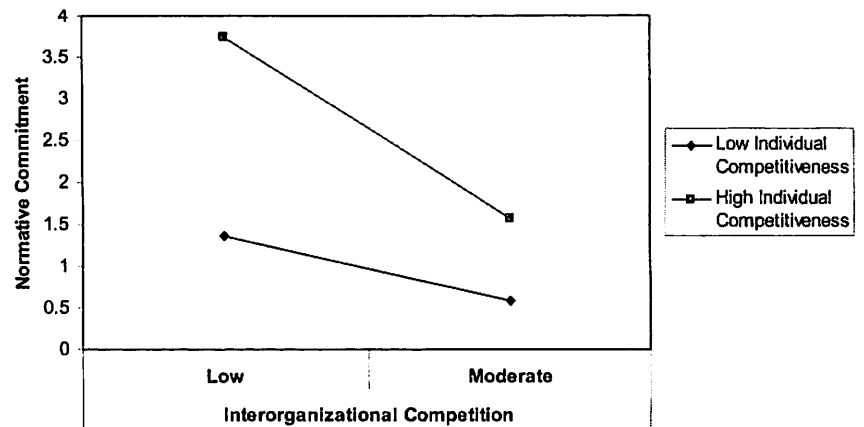


Figure 10.2 Predicted Levels of Normative Commitment at High and Low levels of Competition and Competitiveness.

difference in commitment levels associated with higher interorganizational competition is different for highly competitive individuals ($3.74 - 1.57 = 2.17$) compared to those who are less competitively oriented ($1.37 - .58 = .79$).

These results support the notion that low to moderate competition affects commitment levels differently for more and less competitive people, but the direction of the effect is opposite to our hypothesis. We predicted that there would be a greater positive difference in the normative commitment levels associated with a corresponding difference from low to moderate competition, when in fact we found a greater negative difference in normative commitment for competitive individuals compared to those who are less competitively oriented. Following is a discussion of the implications of these findings.

DISCUSSION

We explored the relationship between interorganizational competition and employees' identity-based commitment in two studies: the first, within multiple firms competing in the public accounting industry; and the second, across multiple jobs, organizations, and industries. Our primary hypothesis was supported in that we found a curvilinear effect of competition on normative commitment both within a sample of employees of the eight largest public accounting firms, as well as in the broad NOS data covering multiple industries and organizations. When firms were engaged in lower or moderate levels of interorganizational competition, employees were more likely to base their attachment to the firm on normative commitment, whereas at higher levels of competition, attachment based on normative commitment was lower. This finding is striking because it emerged

consistently from two very different kinds of studies, and it reveals a link between organization level activities and individual level attitudes—the type of link often presumed but rarely tested empirically (e.g., Mowday & Sutton, 1993).

We also found that a person's orientation toward competition influenced the relationship between interorganizational competition and commitment. Contrary to H2, however, we found that, for competitively oriented people, normative commitment was more negatively affected by interorganizational competition than for those who were less competitively oriented. Individual competitiveness and normative commitment were positively correlated in the accounting firm study ($r = .22, p < .05$), indicating that highly competitive people were more normatively committed to their firms than were less competitive people to begin with. The negative interaction coefficient that emerged here may indicate that competitively oriented people are affected more personally by the threat of competition than are those who are less competitively oriented—they are less willing to involve their self-concept with the organization and more likely to disengage from the organization's identity and values in the face of competitive threat.

The finding that organizational competition is related to lower levels of normative commitment more among competitively oriented people suggests that competitive people may be more likely to depart from an organization faced with intense competition than would those with less of a competitive orientation. We tested this possibility in the accounting firm study by examining responses at time 2 to the following Likert-scaled question: "How long do you intend to remain with this organization?" Controlling for tenure, undergraduate grade point average, sex, person-job fit, and job satisfaction, we found that the interaction between individual competitiveness with organizational competition predicted a person's intent to remain with the organization ($b = -2.83, p < .01$). This offers some support for the notion that competitively oriented employees are more likely to voluntarily exit their organization in the face of competition than are their less competitive colleagues.

Implications of the Relationship Between Interorganizational Competition and Commitment

The results of this study suggest a number of implications for organizations. First, we found relationships between a market-based construct and individuals' identification with their organization. These findings provide additional validity to the continued calls for considering multiple levels of analysis when exploring organizational phenomena, and help to identify specific ways in which macro-organizational phenomena influence the specific individuals who are ultimately and collectively responsible for organizational success.

A second implication is that the effects of interorganizational competition on attitudes change with the level of competition. To anticipate and manage these effects, one must consider not just the existence of competition but also the level of competition the organization faces, relative to both previous levels and to

industry peers' levels of competition. Dynamic phenomena such as interorganizational competition require that managers vigilantly monitor both the market environment and the activities of the organization's rivals, advice often offered by strategy researchers and practitioners (e.g., Porter, 1980). Future research to further refine the relationship between interorganizational competition and individual level attitudes and behaviors should include a dynamic test that examines levels of competition and bases of identification at multiple points in time to see how their relationship changes over time and levels. Exploring this is particularly important because the relationship of interorganizational competition to identification and commitment may depend on the firm's history of competition. For example, normative commitment may be strengthened as interorganizational competition heats up, but may wane after a particularly intense competitive battle, even if overall levels of competition decline. Such dynamic analyses may uncover incidences where the same level of interorganizational competition generates different levels of commitment.

A third implication of this study is that managing the effects of competition on individual attitudes and behaviors may entail understanding people's orientation toward competition. Competitively oriented employees are affected differently than are their less competitive counterparts. Thus, different management techniques may be necessary to motivate people with different orientations, especially when interorganizational competition reaches high levels. It also suggests managers of an organization's hiring and placement processes should consider a firm's current and likely future levels of competition and integrate these considerations into personnel decisions. Future research might examine additional individual characteristics likely to be influenced by interorganizational competition. For example, self-efficacy has been shown to positively influence performance in sports competition (Treasure, Monson, & Lox, 1996). It may be that employees who have higher self-efficacy will experience greater success and satisfaction when interorganizational competition reaches high levels.

Evaluation of this Study

The eight public accounting firms in our primary study were extremely similar to one another in size, structure, human resource policies, and business portfolios during the time the study was conducted. This organizational homogeneity allowed us to more completely isolate the effects of interorganizational competition on employees' attitudes. One consequence of this homogeneity was that the firms experienced relatively similar levels of interorganizational competition. The study, thus, offers a conservative test of our hypotheses.

Further, the results of these studies are relatively striking considering the conceptual and empirical distance between interorganizational competition, a macrolevel independent variable, and employees' commitment, a microlevel dependent variable (e.g., Staw, 1984). The two sets of measures are far apart in

source, scope, and level of analysis, making it even less likely that significant results would emerge. Finally, the results of the accounting firm study are strengthened by the use of random effects estimation to control for group (organizational) effects, which might otherwise have been attributed to interorganizational competition.

Nonetheless, our analyses have limitations. For example, we were not able to test our individual difference predictions in our NOS study. Future studies of interorganizational competition could also include multiple measures of interorganizational competition to indicate this dynamic phenomenon. Additionally, future research in this area could examine the mechanisms by which employees' attitudes are affected by organizational responses to market phenomena, including employee awareness of the market condition. We are unable to ascertain, in this study, whether employees were aware of, and responding to, the actual levels of competition their firm faced or if their attitudes were driven by the organization's responses to that competition. Finally, as previously suggested, a longitudinal examination of changes in competition that incorporates how well a firm has fared in previous competitive environments would likely reveal a more complete picture of employees' attitudes.

Future Research

Future research could investigate additional organizational and individual behaviors associated with higher and lower interorganizational competition. Organizational leaders may respond to competitive pressure differently based on the duration of the competition, the perceptions of the likely outcome of the competition, or even the organization's culture (e.g., Chatman & Cha, 2003). For example, a leader may be reluctant to engage organizational members in active competitive strategies if he or she is confident the competition will wane or that a third party may intervene and fend off the threat. Further, employees' perceptions of interorganizational competition may diverge from actual interorganizational competition. The effects of higher and lower interorganizational competition on employee attitudes and behaviors may be constrained by the extent to which employees are aware of the competition and perceive it as threatening to the organization.

Although not predicted, we found that high levels of interorganizational competition were modestly related to employees' voluntary departure from the organization, especially for competitively oriented employees. It would be useful to examine voluntary departure behavior among people with different competition orientations (both in terms of likelihood and timing of departure) when the organization is threatened by competition.

Furthermore, people whose commitment is primarily based on identification with the organization may use different exit processes, compared to those whose commitment is based primarily on instrumental attachment. Departure for someone whose commitment is primarily normative involves changing their identity

and divorcing themselves from the organization's values. This could be a slower and more difficult process compared to that for an individual whose commitment is more instrumentally based. Instrumental commitment probably enables a more swift departure, contingent primarily on the amount of resources offered by alternative options. For an individual whose commitment is primarily instrumentally based, leaving one organization for another, which offers better rewards for their work, may be a quick and comparatively easy change. Further exploration of departure processes may also help to explain the different effects of competition on the different types of commitment.

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