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Antecedents and Consequences of the Service Climate in Boundary-Spanning Self-Managing Service Teams

In this article, the authors examine antecedents and consequences of the service climate in boundary-spanning self-managing teams (SMTs) that deliver financial services. Using data from members of 61 SMTs and their customers, the authors show a differential impact of the SMT service climate on various marketing performance measures. Furthermore, they obtain support for independent group-level effects of intrateam support and team member flexibility on employee perceptions of the SMT service climate. Both effects are persistent over time and demonstrate that collective perceptions in the SMT have incremental value in the explanation of the service climate.

Research on boundary-spanning service employees has shown that delegation of authority to the front line allows for greater flexibility and adaptability in the performance of service activities through better problem solving, closer employee cooperation, and more efficient knowledge transfer (Hartline and Ferrell 1996). In apparent recognition of this, some companies have organized their front-office operations around self-managing teams (SMTs), or groups of interdependent employees that have the collective authority and responsibility to manage and perform relatively whole tasks. Team members are typically cross-trained in various skills, including developing work routines, planning, and monitoring team performance (Yeatts and Hyten 1998). Companies such as Charles Schwab, Taco Bell, Prudential, Pacific Bell (now part of SBC Communications), CIGNA, Welch Foods, and Xerox have implemented boundary-spanning SMTs (Batt 1999; Cameron and Boise 1995; Wageman 1997).

It has been argued that self-management is an excellent mechanism for improving the performance of the employee–customer interface (Gilson, Shalley, and Blum 2001). However, this claim is not substantiated by the empirical evidence. Whereas Batt (1999) shows that front-office service SMTs perform significantly better in terms of service quality and sales volume than do teams under management control, Chaston (1998) reports an adverse impact on service quality and productivity. Whereas Wageman (1997, p. 32) states that the performance of field-service SMTs at Xerox is "critical to the company's ultimate success," other reports from the business press contest the validity of this assumption (e.g., Zemke 1993). Empirical inconsistencies, conflicting anecdotes, and a lack of theoretical development regarding SMTs in service settings emphasize the need for research that addresses four important theoretical and empirical issues that have been unresolved in previous studies.

First, the research to date has virtually ignored the development of a mediating construct to account convincingly for the apparent inconsistencies in SMT performance. At the firm level, Schneider, White, and Paul (1998) demonstrate that a service climate is a key mediating factor in the prediction of marketing performance. Accordingly, we advance a construct of the SMT service climate that is proximal to perceptions of work-group practices to explain performance variability among teams.

Second, previous research on customer-contact SMTs has focused predominantly on processes within the team (e.g., Cohen, Chang, and Ledford 1997). However, as Hackman (1992) argues, teams do not operate in isolation. Therefore, climate perceptions may also be the result of organizational context characteristics. We develop a conceptual framework that takes into account both team- and company-related predictors of the SMT service climate.

A third issue that has not been explored is whether climate-defining team characteristics have an impact at the work-group level that is beyond the perception of individual employees. Each SMT may develop a unique set of shared perceptions of desirable behavior (e.g., the level of support to other team members), and between-group differences may be contingent on these perceptions (Mathieu and Kohler 1990). Therefore, we examine whether group-level aggregations of team member perceptions incrementally determine employee perceptions of the SMT service cli-

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mate. The group-level effects may be contingent on the type of service delivery. Stewart and Barrick (2000) demonstrate that task type moderates variability in the magnitude of reported predictor–criterion relationships in explaining manufacturing SMT performance. We extend this finding by considering distinct types of service delivery in our analysis of group-level antecedents and consequences of the SMT service climate.

Fourth, the impact of boundary-spanning teams on business performance measures (Batt 2002) is unknown. Part of the gap in the knowledge about SMT effectiveness stems from the complexity in considering various types of performance measures (e.g., customer evaluations versus productivity measures) across different types of service delivery (Batt 2002). Another reason is that extant studies may not have been able to provide definitive conclusions on frontline SMT effectiveness because they employed cross-sectional data on relationships that might have needed to be separated in time (Griffin 1991). Therefore, we examine the lagged effects of the SMT service climate on customer perceived quality, share of customer, and sales productivity for two types of service delivery.

The increasing importance and ubiquity of boundary-spanning SMTs, despite inconsistent and sometimes contradictory findings, create the need for more definitive research that describes and defines the nature and scope of SMTs and their possible effects. We propose four additions to SMT research and test the theoretical and empirical advantages and implications of these additions.

Development of a Conceptual Framework

SMT Service Climate

Although various employee-based measures (e.g., job satisfaction) have been advanced as drivers of service performance, it also has been argued that service climate has superior predictive power (Schneider, Wheeler, and Cox 1992). We extend previous research by adopting a team-level focus on service climate. Our conceptual point of departure for developing several definitional assumptions is Katz and Kahn's (1978) description of climate being the result of a distinct pattern of individual team members' collective beliefs developed through members' interaction with their social environments. First, this description theoretically relates climate to antecedent variables in the organizational and team contexts (Lindell and Brandt 2000). Second, Katz and Kahn (1978) posit that perceptions of climate are essentially a property of the individual member that can be aggregated to reflect a group-level construct (see James and James 1989). Third, as climate is related to various environments, different climates may exist for organizational goals and structural levels. Proximal measures that conceptualize climate in terms of both goals (e.g., customer service) and levels (e.g., the team) produce strong relationships with targeted performance parameters (Tesluk et al. 1995). Finally, because climate involves the construction of shared meaning through the process of interaction, the process is dynamic and in line with Hackman's (1987) process criterion of effectiveness, which relates to team members' effort, knowledge, skill, and performance in achieving team goals. Thus, we define *SMT service climate* as the collective beliefs of SMT members on effort, knowledge, skills, and performance with regard to effective service delivery.

Antecedents of SMT Service Climate: An Individual-Level Perspective

Our framework, which relates SMT service climate to its antecedents, has two distinct conceptual roots: (1) Hackman's (1987) normative model of team effectiveness, which distinguishes intra- and extrateam factors, and (2) the involvement approach (Bowen and Lawler 1992), according to which employees are given the authority and resources to coordinate, plan, and control the service delivery process. Three main characteristics that differentiate service SMTs from other traditional work groups govern our choice of predictor variables: (1) higher levels of autonomy, (2) functional flexibility, and (3) interdependency within and between teams (Campion, Medsker, and Higgs 1993). In general, SMTs are designed with a certain degree of role-related diversity (Yeatts and Hyten 1998). Researchers have posited that perceptions of collective phenomena (i.e., service climate) represent cognitive interpretations of proximal structures and processes based on a person's experience, values, knowledge, and expertise (Brown and Leigh 1996). Thus, members of the same SMT may have different perceptions of the SMT service climate defining antecedents. Prior research on work groups has demonstrated that within-group perceptual deviation reflects systematic (not random) variance that may represent differential cognitive appraisals of the team environment (Van Yperen and Snijders 2000). Thus, we postulate predictor–criterion relationships at the individual level.

Hackman (1987) posits that a supportive organizational context is a major determinant of group effectiveness. A central component of the involvement approach is empowerment, which refers to the notion that service employees must be given a certain degree of autonomy and be able to perform job-related activities with skill (Hartline and Ferrell 1996). Recent research on production teams demonstrates that senior management's lack of tolerance for self-management may be an important barrier to SMT effectiveness (Balkema and Molleman 1999). Furthermore, in the case of boundary-spanning SMTs, it has been consistently argued that perceived autonomy is critical to the attitude and behavior of customer-contact personnel (Batt 1999; Van Mierlo et al. 2001; Wageman 1995). Thus:

> H_1: Tolerance for self-management positively affects employees' perceptions of the SMT service climate.

In addition, SMT members need to be able to use delegated authority optimally; this ability has been associated with several synergistic processes in teams (Hackman 1987). The SMT members should be capable of performing various team tasks, whether operational, managerial, or administrative (Spreitzer, Cohen, and Ledford 1999). As the spectrum of SMTs' tasks grows, job assignments rapidly evolve, SMTs need to become highly interdependent, and there is a need for flexible and multiskilled members (Batt

1999; Sundstrom, de Meuse, and Futrell 1990). Recent research (Marks, Mathieu, and Zaccaro 2001; Mathieu et al. 2000) has demonstrated that the ability to perform interrole behaviors facilitates attainment of team goals. We hypothesize that perceptions of team member flexibility form another relevant foundation for the establishment of service climate:

> H_2: Flexibility of team members positively affects employees' perceptions of the SMT service climate.

The literature on employee involvement has demonstrated that coworker involvement reduces perceptions of boundary-spanner role stress and increases service performance (Bettencourt and Brown 1997). The implication is that when service employees experience peer-based learning and coworkers' service-driven attitude, they will be motivated to carry over this attitude to their customer encounters. Frequently, cooperative interaction within and between SMTs is required to address customer service requests successfully and to create a service-oriented work environment (Horwitz and Neville 1996). The services marketing literature posits that mutual support among employees is essential to the implementation of service-quality improvements (Berry, Parasuraman, and Zeithaml 1994). Batt (1999) has shown that collaborative endeavors are a key success factor of SMT effectiveness in boundary positions. Conceptually, we distinguish between inter- and intrateam support. Interteam support refers to team member perceptions of the internal service and communication between teams and other units in the organization, whereas intrateam support pertains to team members' willingness to offer help and to deliver service to other members of the group in order to attain work-group goals (Campion, Medsker, and Higgs 1993). We hypothesize the following:

> H_3: Employee perceptions of the SMT service climate are positively affected by (a) interteam support and (b) intrateam support.

Although some researchers claim that the individual perspective constitutes the only proper unit of analysis, others argue that the study of group phenomena can be analyzed in a meaningful way only at the group level (Lindell and Brandt 2000). Therefore, in the next section, we discuss the conceptualization of the aforementioned predictor variables at the group level.

Antecedents of SMT Service Climate: A Group-Level Perspective

It has been advanced that by evoking the notion of climate, each team can develop a unique set of norms and mental models regarding desirable behavior (e.g., the level of support to other team members), thus reflecting between-group differences (Mathieu and Kohler 1990). Studies on shared mental models (Mathieu et al. 2000) and transactive memory in teams (Liang, Moreland, and Argote 1995) demonstrate that team members develop shared beliefs about their team that instigate team members to develop interrelated knowledge and norm structures to facilitate group processes. Lindell and Brandt (2000, p. 332) state that shared beliefs reflect that individual members "are socialized to act in similar ways, are exposed to similar features within contexts, and come to share their interpretations with others in the setting." Beliefs are conceptually distinct from constructs that exist at the group level only (e.g., team size) (Gully et al. 2002). Aggregate-level constructs reflect psychosocial traits that are not captured by the individual-level measurement (Hackman 1992). These constructs may differentially influence individual members' perceptions of the SMT service climate. Group-level constructs strongly reflect the basic assumption of synergistic processes within the SMT (Hackman 1987). Poole and McPhee (1983, p. 213) view sources of work-unit climate as collective attitudes that are "continually produced and reproduced by members' interactions." Particularly in service SMTs, there is a relatively high level of interdependence and interactions (Batt 1999), in which shared perceptions, unique to the work unit, are formed.

To better understand the similarities and differences inherent in multiple-level constructs, scholars have used the typology of elemental composition (Bliese 2000; Chan 1998). Elemental composition takes place when a higher-level construct consists of collective lower-level measures. The composition model for the SMT antecedents in our study is the direct consensus model, which characterizes climate-defining antecedents as properties of the individual team member. At the same time, when there is consensus between individual perceptions (e.g., on intrateam support), the aggregate composes a construct at the work-group level that represents shared perceptions of a collective belief. Prior research on teams' withdrawal behavior (absenteeism and lateness) in boundary-spanning service settings provides evidence of the influence of group-level predictors on individual employee behavior beyond individual-level antecedents. Mathieu and Kohler (1990) and Blau (1995) report significant effects of aggregated group-level variables on individual employee behavior in auto repair, hospital, and banking service teams. Their results seem to support Bryk and Raudenbush's (1992) contention that group-level aggregations of contextual properties represent a distinct perspective that may not be captured by individual-level measures. Therefore, we hypothesize the following:

> H_4: At the group level of analysis, the positive effects of (a) tolerance for self-management, (b) team member flexibility, (c) interteam support, and (d) intrateam support account for a significant amount of additional variance in individual employees' perceptions of the SMT service climate.

Antecedent–SMT Service Climate Relationships Across Service Types

Positive linear relationships between SMT characteristics and member-related outcomes (e.g., employee satisfaction, organizational commitment) within and across various frontline service settings have not yielded a consistent pattern (Batt 1999; Cohen, Chang, and Ledford 1997; Gilson, Shalley, and Blum 2001; Wageman 1997). Variability in the magnitude of reported predictor–criterion relationships may indicate the presence of moderator variables, such as task characteristics. In a manufacturing setting, Stewart and Barrick (2000) show that SMTs that are responsible for routine tasks are less likely to be affected by flexibility and interdependency than are SMTs that perform nonroutine activities.