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# IT SERVICE CLIMATE: A DEFINITION AND RESEARCH MODEL

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## Extended Abstract<sup>1</sup>

Information technology departments are increasingly viewed as service providers to business users (Kettinger and Lee 1994), and service quality has been proposed as a measure of IT effectiveness (Pitt et al. 1995). Previous research (Kettinger and Lee 1994; Pitt et al. 1995) has adapted the SERVQUAL scale (Parasuraman et al. 1988) from service marketing literature, using it to gauge business users' expected and perceived levels of IT service quality. In this research, we investigate the other half of the IT-user relationship and look *inside* the IT function to identify variables that affect IT service quality. By focusing on IT professionals and the IT department, we hope to gain a deeper understanding of service quality and to assist managers in pinpointing the *causes* of service shortfalls.

This study offers a theory-based extension to IT service quality research. We look to the organizational psychology literature, with its stream of theory-based research on *organizational climate* to connect management practices with organizational outcomes through employees' shared cognition of their work environment (Campbell et al. 1970; Kopelman et al. 1990). Much of that literature has focused on one type of climate, that is, *service climate* (or climate for service), which has been established as a predictor of the quality of service provided to customers (Schneider, Ashworth et al. 1996; Schneider and Bowen 1985; Schneider, Parkington, and Buxton 1980; Schneider, White, and Paul 1998). Building on these studies, we apply service climate theories to the IT context and introduce a new construct, *IT service climate*. We propose a conceptual model that links IT professionals' climate perceptions with antecedent and outcome variables, including IT service quality. This study represents an effort to comprehensively introduce organizational climate as a useful theoretical lens for researchers interested in many IT-related phenomena.

## Climate

### *A Definition*

Climate has been defined as “the shared perceptions of employees concerning the practices, procedures, and kinds of behaviors that get rewarded and supported in a particular setting” (Schneider 1990, p. 384), or simply the shared perceptions of “the ways things are around here” (Reichers and Schneider 1990, p. 22). Thus, organizational climate is one way to conceptualize the totality of the experiences organizational members have of their work environment (Schneider and White 2004). It is functional in nature and serves as a basis for interpretation and, therefore, as a guide to action (Litwin and Stringer 1968). In other words, climate is a perceptual medium through which the effects of the work environment on work-related behaviors pass (Campbell et al. 1970; Kopelman et al. 1990).

Climate and culture are two related, but distinct, constructs. Climate is about experiential descriptions or perceptions of what happens; it develops from the deeper core of culture and can be understood as a manifestation of culture (Schein 1985). Thus,

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<sup>1</sup>**Keywords:** Climate, IT service climate, service quality, SERVQUAL

climate is more immediate than culture and is more easily observable (Ostroff et al. 2003), while culture is a deeper phenomenon based on symbolic meanings that reflect core values and fundamental ideologies and assumptions (Schein 1992). See Schneider (1990) for more discussion on this topic.

### ***Psychological and Organizational Climates***

In climate research, there is a clear distinction between individuals' perceptions of their environments as *psychological* climates and the combination of these individuals' shared perceptions at the group or organizational level as *organizational* climate (James and Jones 1974). To justify using the mean score to represent a higher level climate, it is necessary to demonstrate a high level of "sharedness" in cognition among individuals through some form of within-group agreement (e.g.,  $r_{wg}$ , James et al. 1984). To the extent that homogeneity in perceptions of climate is present, organizational-level relationships can emerge and be meaningfully examined (Ostroff and Bowen 2000). Large variability in perceptions among members indicates that aggregated perceptions do not adequately represent a construct of climate at the higher level (e.g., James 1982).

### ***Climate Level and Climate Strength***

Because climate is measured by obtaining and aggregating survey responses of individuals, this measurement process will yield a distribution of ratings across raters for each scale (Lindell and Brandt 2000). Thus, to the extent that a climate exists, it will have both a level and a strength. Climate level is calculated as the group mean, and climate strength is captured by within-group variance (see Chan 1998; Lindell and Brandt 2000).

### ***Strategic Focus for Climate***

Climate is best regarded as a specific construct having a referent or strategic focus: a climate must be a climate for something (Schneider 1975), because it is "not an omnibus construct conceptually," and nonspecific measures of climate have "little utility" (Schneider and Reichers 1983, pp. 22-23). The "climate-for" approach has been used to study issues such as service (Schneider 1990), innovation and systems implementation (Klein and Sorra 1996), technical updating (Kozlowski and Hults 1987), creativity (Amabile and Grysiewicz 1989), and ethics (Victor and Cullen 1988). Among all strategic climates studied so far, service climate, first conceptualized by Schneider (1973), has received the most research attention.

### ***Climate Research in the IT Literature***

Over the past decade, many different types of climates have been studied and the efficacy of this construct has been established in IT research. However, application of research practices from the organizational psychology literature has been inconsistent. The most common variations are undifferentiated psychological and organizational climates, unfocused climate variables, and lack of measures of climate strength. Our conclusion after reviewing the literature is that climate has great potential for understanding behaviors in the IT community. We hope to build upon the work that has appeared to date and establish a disciplined approach to the use of this robust construct.

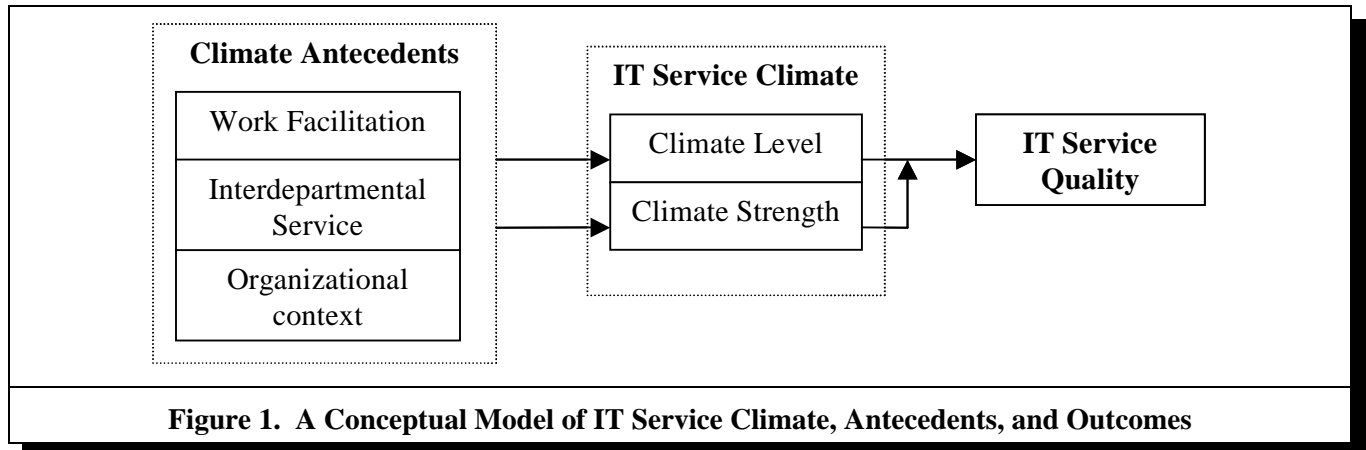
## **IT Service Climate**

Adapting the definition by Schneider, White, and Paul (1998), we define *IT service climate* as *the IT professionals' shared perceptions of the practices, procedures, and behaviors that are rewarded, supported, and expected in the IT function with regard to providing IT services to business customers*. IT units with higher service climate levels will be said to have more favorable climates; IT professionals in units with higher climate strength agree more completely on the favorability of their service climate.

Schneider, White, and Paul developed a four-dimension scale of service climate (i.e., *customer orientation, managerial practices, customer feedback, and global service climate*) in studies of banking services. While these dimensions may also apply to IT, new dimensions unique to the IT service context (e.g., *business orientation, communication*) may be identified in future empirical research.

## Research Model and Propositions

Based on this conceptualization, a conceptual model linking IT service climate and its antecedent and outcome variables is presented in Figure 1. Propositions derived from the model and supporting literature are summarized in Table 1.



**Table 1. Propositions and Supporting Literature**

P1: The level of IT service climate is positively related to the level of IT service quality.	Schneider, Ashworth, et al. 1996; Schneider, Parkington, and Buxton 1980; Schneider, White, and Paul 1998
P2: The relationship between IT service climate level and service quality will be moderated by IT service climate strength. The relationship will be stronger when climate strength is higher.	González-Romá et al. 2002; Lindell and Brandt 2000
P3: Work facilitation practices will impact IT service climate level and strength.	González-Romá et al. 2002; Grönroos 1990; Lindell and Brandt 2000; Reynoso and Moores 1995; Schneider, Gunnarson, and Niles-Jolly 1994
P4: The level of consistency between work facilitation practices will impact IT service climate level and strength.	Bowen and Ostroff 2004; Hollenbeck and Klein 1987; Kopelman et al. 1990; Schneider 1990
P5: The quality of the interdepartmental service that IT receives is positively related to IT service climate level and strength.	Grönroos 1990; Reynoso and Moores 1995; Schneider, White, and Paul 1998
P6: The organizational context of an IT unit will impact its service climate level and strength.	González-Romá et al. 2002; Lindell and Brandt 2000

## Summary and Directions for Future Research

This study offers a theory-based extension to IT service quality research with a focus on the IT department. Building from the organizational climate literature, we propose a new construct, *IT service climate*, and a conceptual model that links IT service climate with antecedent and outcome variables. This research is the first to use organizational climate as a theoretical lens to study IT service quality, and it lays the theoretical foundation for extending IT service quality research and for the development of an instrument to measure IT service climate.

Because Schneider, White, and Paul's (1998) service climate instrument is proprietary, developing and validating a scale for IT service climate will be the first step for empirical research in this area. Future researchers should conduct extensive literature

reviews and field interviews to identify new dimensions and generate questionnaire items. Equipped with a validated IT service climate instrument, survey studies can be conducted to test the conceptual model. Such an instrument will assist IT managers in taking targeted actions to improve service quality. IS-SERVQUAL, as a dependent-variable instrument, will then become more useful to managers after IT service climate is established as an antecedent.

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