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**UNDERSTANDING COMPETING CLIMATES: A  
THEORETICAL FRAMEWORK FOR  
EXAMINING SERVICE AND  
ETHICAL CLIMATES**

by

Christopher T. Huynh, B.S. M.A.

A Dissertation Presented in Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Philosophy in Industrial/Organizational Psychology

COLLEGE OF EDUCATION  
LOUISIANA TECH UNIVERSITY

November 2019

LOUISIANA TECH UNIVERSITY  
GRADUATE SCHOOL

**July 19, 2019**

Date of dissertation defense

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entitled **Understanding Competing Climates: A Theoretical Framework for  
Examining Service and Ethical Climates**

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## **ABSTRACT**

The study of work climate has expanded our understanding of how context impacts individuals in the workplace. While most climate research has focused on single- or multi-faceted organizational climates and how they directly impact the individual employee, little has been done to understand the influence of multiple, competing work climates on employee behavior. The purpose of this study was to examine the multiple, competing climates perspective (Schneider et al., 2013) to better understand the influence of context on an employee's work-related attitudes. This dissertation begins with a brief review of the climate literature and its existing challenges, highlighting the importance of psychological climate, and highlights ethical and service climate as two optimal candidates for studying multiple competing climates. I then argued for adopting Quinn and Rohrbaugh's (1981) competing values framework (CVF) to provide a theoretical model for understanding how multiple, competing climates can impact work attitudes.

To test the viability of this theory, I solicited 690 participants with at least one year of professional experience through Amazon Mechanical Turk (MTurk) and asked them to complete a questionnaire including measures of ethical climate, service climate, job satisfaction, and organizational commitment to empirically test the proposed theoretical framework. I used a structural equation modeling approach to test

hypothesized relationships between each climate and each job attitude, as well as the proposed moderation hypotheses where climates may compete to uniquely impact employee job attitudes. I began with a confirmatory factor analysis to confirm the latent factor structure of my measurement model and followed with latent path moderation analysis to test the hypothesized competing climates framework. While there was limited fit for the revised measurement model, the results of this study failed to support the hypothesized competing climates framework. A review of this study's competing climates research, limitations, and opportunities for future research are discussed.

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## **ACKNOWLEDGMENTS**

Many individuals are due a great deal of gratitude for their contribution to this dissertation, as well as my development while in this doctoral program. First and foremost, I would like to thank my friends and family for their love and support during my graduate studies. The journey, while difficult and time consuming, is coming to an end and it would not have been possible without your time, energy, and belief in me. I'd like to thank Dr. Kevin Mahoney; although you were not officially part of this dissertation committee, your advice, guidance, and unwavering focus on my development has been monumental in enabling me to achieve my goals. I appreciate your contributions and acknowledge your guidance on my scholarly voyage. Next, I would like to thank my dissertation committee: Dr. Steven Toaddy, Dr. Frank Igou, and Dr. Walt Buboltz. Thank you for for investing endless time and energy into my academic and professional development. This dissertation is not possible without the amazing support you all have provided me and the investment you all have made in my personal and professional development. Finally, I would like to thank the remaining members of the I/O Psychology faculty at LA Tech, Dr. Mitzi Desselles and Dr. Tilman Sheets. I appreciate your guidance and support for the better part of the last decade. I began this journey wanting to satisfy an untapped intellectual curiosity and want you to know that I am forever grateful for the time and energy you have invested in me. I look forward to partnering with you all in the future.

While this dissertation marks the end of my graduate studies, I want to make it exceedingly clear that this is not the end of my scholarly journey. Rather, it is just the conclusion of a chapter in my life. I'm unsure of what is on the horizon, but do take solace in knowing that the last decade could not have prepared me better for what is to come. Future, I'm on my way.

# **CHAPTER 1**

## **INTRODUCTION**

In the world of work, situational and environmental cues that impact employee behavior are known as climate. Employees interpret their work climates uniquely, and these interpretations become key for shaping individual employee behavior (e.g., Bock, Zmud, & Kim, 2005; Neal, Griffin, & Hart, 2000) and attitudes (e.g., Pritchard & Karasick, 1973; Schulte, Ostroff, & Kinicki, 2006). Consequently, extensive theoretical and empirical research on the topic has established climate as an important component of understanding employees. Without understanding the environment and how employees perceive that environment, we are often left with an incomplete understanding of “why employees do the things they do.” Climate is also inherently multi-faceted and an aggregate of multiple, competing constructs (Schneider, Ehrhart, & Macey, 2011). For example, whether an individual experiences a strong team climate at work may have a positive effect on the individual’s attitude towards their coworkers, but what happens if they also perceive a distinct, additional climate such as a service climate? Faced with a choice between assisting a customer and helping a coworker in need, what would the employee do? Would the organization’s emphasis on the customer experience outweigh the employee’s propensity to help a colleague in distress? Interestingly, while there is research specifically looking at single- or multi-faceted organizational climates and how they directly impact the individual employee, little has been done to understand the

influence of multiple, competing work climates on employee behavior. The purpose of this study is to further examine the multiple, competing climates perspective (Schneider et al., 2013) in order to better understand the influence of context on an employee's work-related behaviors and attitudes. I begin with a brief review of the climate literature and its existing challenges, highlighting the importance of psychological climate. I then discuss both ethical and service climate as two optimal candidates for studying multiple climates and introduce the notion of competing climates. Finally, I argue for adapting Quinn and Rohrbaugh's (1981) competing values framework (CVF) and provide a theoretical model for understanding how multiple, competing climates can impact work behaviors.

### **Climate**

The concept of climate is deeply rooted in social psychology. The first researchers to study climate were Lewin, Lippitt, and White (1939) who examined the social climate of boys' groups in the late 1930s. As climate research grew in the 1950s and 1960s, so too did the focus on organizational context and an emphasis on how individuals perceive their work environments. Interest in the work context continued to grow with researchers such as Viteles (1953), who studied employee morale, McGregor (1960), who studied how managerial behaviors resulted in a "managerial climate" that impacts employee behaviors, and Likert (1961), who examined the influence of leadership on employee experiences and overall organizational effectiveness. While few of these studies explicitly used the word 'climate' as part of their terminology, common themes were starting to emerge. Specifically, perceptions of management and/or leadership were starting to become recognized as having influence on employees.

A notable point of development for the field of climate came with the publishing of two texts—*The Social Psychology of Organizations* (Katz & Kahn, 1966) and *Organizational Psychology* (Schein, 1965). Unlike previous research that had emphasized perceptions of leadership and/or management (e.g., Lewin et al., 1939; Likert, 1961), Katz & Kahn’s work took a wider perspective, including a focus on the overall social situation (or context) encountered by an employee. Schein’s text summarized previous research up until that point and emphasized an emergent shift in focus from an industrial perspective (i.e., one focused on maximizing the effectiveness of the individual) to one more organizational (i.e., focused more on the organization as a whole, and how the individual factors into the larger picture). In fact, he stated, “the material covered in this book will reflect the general historical trend from an individual-oriented industrial psychology toward a group- and systems-oriented organizational psychology” (p.5). While the works of Katz and Kahn and of Schein certainly played their part in helping jumpstart a focus on more group-oriented studies, much of the work that defined organizational climate and the issues that plague organizational climate had yet to be conducted until the late 1970s and early 1980s. In the next section, I will describe the issues that have plagued climate researchers (e.g., construct validity, level of analysis) and introduce the concept of psychological climate.

### **Climate Issues**

The lack of a universally accepted definition for the climate construct in the 1960s and 70s set the stage for researchers to converge on what climate should be. Glick (1985) proposed that that an organizational climate only existed if a) items from a climate survey were assessing some aspect of organizational functioning, b) the data are aggregated to



the organizational level of analysis, and c) organizational outcomes were explicitly examined as criteria for climate measurement. Thus, climate, according to Glick, could only exist within organizations at the group level, focused solely on aspects within the organization, and could only be related to organizational-level outcomes. Glick (1985) also argued that failure to meet these criteria would render any climate research no different from research on individual-level attitudes. In fact, researchers such as Guion (1973) suggested that studying climate at the individual level (or psychological climate) was not any different from existing research on job satisfaction. As such, researchers began to ponder whether there was enough distinctness between psychological climate and job satisfaction. In the 1970s, climate researchers (e.g., LaFollette & Sims, 1975; Schneider & Snyder, 1975) struggled with this issue and eventually concluded that while related, the two concepts were distinct constructs; LaFollette and Sims (1975) and Schneider and Snyder (1975) compared climate and satisfaction measures, ultimately determining that they were moderately related, but not enough to consider both constructs the same. They found that both measures differed primarily in how they are worded. Specifically, climate measures are typically descriptive of external characteristics to the individual, whereas satisfaction measures are more evaluative and affective. Thus, individuals should experience specific work aspects within their work climate and then develop an attitude or feeling towards those aspects that would affect their satisfaction.

As climate research continued to grow, researchers began challenging the existing understanding of the climate construct. Central to these discussions were whether climate should be studied at the individual or group level. Previous researchers had studied climate from both perspectives, examining individual perceptions of climate and

meaning for the individual (e.g., Litwin and Stringer, 1968; Schneider and Bartlett, 1968) while others aggregated perceptions and referred to the group as the appropriate referent (e.g., Seashore, 1964; Tannenbaum, 1962). In addition to the level-of-analysis issue, early climate researchers queried participants about generic environmental practices and procedures, but not about *feelings* regarding those practices and procedures. Despite interest in understanding whether climate impacted outcomes, researchers lacked a unified understanding of whether climate should be studied at the individual or group level and whether climate was distinct from the concept of job attitudes.

To help address the conceptual and level-of-analysis issues inherent in emerging studies of climate, James and Jones (1974) developed the term psychological climate to refer to meanings that people ascribe to their jobs, co-workers, leaders, pay, performance expectations, opportunities for promotion, equity of treatment, etc. – essentially all aspects of an individual’s work environment. The term psychological climate is often used to describe climate studies at the individual level that tend to impact individual-level outcomes. It is thought that an individual’s perception of their work environment is more proximal than shared perceptions, and more appropriate for understanding individual-level outcomes (James et al., 2008). James and Jones (1974) urged using the term “organizational climate” when examining shared perceptions of multiple individuals (e.g., shared perceptions of a group or unit). While James and Jones’s work was primarily focused on operationalizing psychological climate, or climate at the individual level, their work inspired others (e.g., Ashforth, 1985; Glick, 1985) to further distinguish between organizational and psychological climate. Much of the work in the 1980s was geared towards a) ensuring that organizational and psychological climate were indeed

divergent constructs and b) getting a sense of whether organizational climate or psychological climate preceded one another. According to Ashforth (1985), the level of analysis issue is not as important as long as researchers examine group-level perceptions and the meanings that are attached to those perceptions. Thus, there is merit in using psychological-level climate perceptions and aggregating those perceptions to understand climate at the group level. In the next section, I will attempt to characterize psychological climate and highlight the usefulness of psychological climate as a mechanism for understanding the climate construct.

### **Psychological Climate**

In an effort to further understand psychological climate, Jones and James (1979) focused on the cognitive components of what it takes to attach meaning to something – specifically through interpreting different aspects of an individual’s work environment. Jones and James argued that there are two sides to establishing meaning – the first is a surface-level cognitive interpretation and the second is an affective valuation. Cognitive interpretation refers to the descriptive meaning an individual attaches to a particular cue whereas affective valuation is characterized by evaluating the cue as ‘good’ or ‘bad’. For example, an employee may describe outdoor labor as physically taxing, but may evaluate it as ‘good’ since the employee enjoys the outdoors. Working in tandem, these two processes allow an individual to attach meaning to particular work stimuli – whether they be leadership, processes, etc. While psychological climate is sometimes thought of as strictly limited to the cognitive-interpretation side, it is still useful to include an individual’s perspective (i.e., affective valuation) to understand the overall meaning.

While the unit level of analysis is most commonly studied within the climate literature, psychological climate still remains an important area of study (James et al., 2008). Researchers continue to pursue empirical research to further understand psychological climate's relationship with key organizational outcomes. Recent works have focused on psychological climate as a predictor of work attitudes and safety orientation (Clarke, 2010), affective commitment (English, Morrison, & Chalon, 2010), psychological well-being, and employee engagement (Dollard & Bakker, 2010). Beyond distinctions between climate's different levels of analyses are the different types of climates and their focus. The two most commonly studied climate types are molar and focused climates, both of which offer perspectives on climate constructs. In the next section, I will describe the distinction between molar and focused climates, and elaborate on the use of focused climates in my proposed dissertation.

### **Molar vs. Focused Climates**

Early scholars considered climate a multi-dimensional concept spanning a variety of different areas identified by multiple researchers. These types of climates were operationalized as a general factor and considered a single indicator of well-being (Lazarus, 1982). Work climates were based on varying degrees of multiple variables, namely structure, autonomy, rewards, consideration, warmth, and support (Schneider, 1975). For example, Locke (1976) posited that climate was an aggregate of four dimensions deemed to be significant in employee perceptions – role stress and lack of harmony; leadership facilitation and support; job challenge and autonomy; and workgroup cooperation, friendliness, and warmth. Organizational climate research based on aggregate measures of work climate highlight the molar conceptualization of climate.

The molar focus allows for a wider range of factors to be included in individuals' overall interpretation of their organizational climate (Carr, Schmidt, Ford, & DeShon, 2003).

Climate researchers have slowly shifted their attention away from molar climates and more towards examining specific types of climates (or focused climates). A focused climate is a climate that is directly tied to the specific outcome it should be predicting (e.g., service climate, safety climate; Schneider, 1975). To study focused climates, researchers typically survey employee perceptions reflective of the outcome of interest. Further, focused climates generally fall into two categories – outcome-focused or process-focused climates. Outcome-focused climates are tied specifically to tangible criteria that are thought to be reflective of an employee's work perceptions (e.g., safety climate; Zohar, 1980). Process-focused climates differ in that they emerge from different organizational processes that exist within the organization (e.g., procedural-justice climate). While outcome- and process-focused climates offer different perspectives for studying the contextual influences that impact employees, the concentrated nature of both focused climates suggests that multiple climates exist within any given situation. Considering this, it is no surprise that employees' overall interpretation of their work context is largely a function of competition between multiple focused climates of varying strength (e.g., Jiang et al., 2016; Myers, Thoroughgood, & Mohammed, 2016). When multiple strong climates exist, the values associated with each climate can 'compete' with the values of other existing climates and this competition between climates may influence how employees appraise various work situations (Paul, 2012).

While there are many interpretations of organizational climate such as the general climate, outcome-focused climates, process-focused climates, etc. (Schneider et al.,

2013), few researchers have attempted to directly examine how different types of climates interact. Limited research into multiple, competing climates and their interactions may be attributed to a lack of a unified theoretical framework. While conceptually different, researchers have started to move away from examining both process-focused climates and outcome-focused climates exclusively from each other and have started to focus on how different types of climates may interact with each other to impact organizational outcomes (e.g., Jiang et al., 2016; MacCormick & Parker, 2012; Myers et al., 2016). I have chosen to examine two popular focused climates (service climate and ethical climate) to further understand how their interactions may potentially influence important work attitudes. While both are focused climates, service climate can be described as an outcome-focused climate whereas ethical climate is a process-focused climate. The divergence between the two constructs will allow for a more efficient comparison of the two focused climates. In the next few sections, I will describe both service and ethical climate in further detail and discuss how both constructs can be used to examine multiple climates simultaneously.

### **Ethical Climate**

The majority of ethics researchers agree that most moral philosophy can be organized under three major classes of ethical theory—egoism, benevolence, and deontology (or principle; Fritzsche and Becker, 1984; Williams, 1985). A key subject specific to organizational ethics literature is how individuals undergo moral development. Individual moral development can impact the propensity for ethical reasoning (Kohlberg, 1969) and can further explain how individuals interpret their work environment (Victor &

Cullen, 1987). Researchers have also examined how ethics are important at the group level, under the umbrella term, ethical climate.

Victor and Cullen (1988) first defined ethical climate as “general and pervasive characteristics of organizations, affecting a broad range of decisions.” Their definition is largely founded on Socrates’s question—“what *should* I do?” While their conceptualization of ethical climate is broad, it is meant to comprehensively encapsulate issues that may influence individual ethical decision making. Using early work in ethical theory, moral development, and sociocultural theories of organizations, Victor and Cullen (1987) set out to determine what types of ethical climates existed in organizations; this work ultimately gave way to ethical climate theory. Ethical climate theory argues that the types of ethical climates observed in organizations depend on the nature of the organizational units and their contexts. Thus, organizations develop their own norms and which serve as building blocks of the ethical climates that emerge. One principle of ethical climate theory is that there is no single ethical climate for an organization. Instead, there is a mix of multiple climates perceived by the organization’s employees. Victor and Cullen’s (1987) posited that there would be a variety of ethical climates that could exist within organizations, and set out to further define the ethical climate construct. They derived five different types of ethical climate—law and code, caring, instrumentalism, independence, and rules. These five ethical climate types have been integrated into ethical climate theory and have become the consensus foundation for ethical climate’s theoretical framework. In the next section, I discuss the nuances of ECT, describe the different types of ethical climate that can emerge as posited by ECT, and

provide a brief overview of the empirical literature to argue for the inclusion of ethical climate in my study of competing climates.

### **Ethical Climate Theory**

Deeply rooted in ethical philosophy, ECT's development can be traced back to Kohlberg's work in moral development (Kohlberg, 1969). Kohlberg's argued that morality is composed of three different moral concepts—egoism, utilitarianism, and deontology. Egoism can be defined as behavior driven by individual self-interest. Utilitarianism can be characterized as behavior focused on maximizing the greater good for as many parties as possible. Behaviors that follow rules, codes, laws, and procedures meant for the good of others would be an example of deontology.

Victor and Cullen used a sociological-theory approach to organizations (Gouldner, 1957) in order to identify and categorize the different types of ethical climate that can emerge in an organization. In ECT all ethical decisions are founded on the concepts of egoism, benevolence (or utilitarianism), and principle (or deontology). Research suggests that one of the three concepts in ECT will emerge within a sample and characterize the overall ethical climate. Victor and Cullen's ECT builds on this concept by describing the different types of ethical behavior and decision-making that can impact ethical climate. In their study, Victor and Cullen identified three different levels of analysis that were key to understanding ethical climate—the individual level of analysis, the local level of analysis (the organization), and the cosmopolitan level of analysis (community or society which the organization functions within). Victor and Cullen's theoretical model of ethical climate was created by examining egoism, benevolence, and principle against each of these levels of analyses. Victor and Cullen's empirical tests



revealed five unique conceptualizations of ethical climate—caring, instrumental, independence, rules, and law and code—that embody each different component of ethical decision making and each level of the organization. Ethical-climate researchers have continued to support ethical climate and the existence of five different types of ethical climate (Agarwal and Malloy, 1999). In the next section, I will characterize each of the five unique ethical climates that can emerge according to ethical climate theory.

**Caring.** Founded on the concept of benevolence, caring climates can be described as climates wherein the employees believe that decisions made by their organizations are founded on a concern for the well-being of others; this ethical concern is not only limited to employees within the organization, but also includes individuals and entities external to the organization (e.g., local community, society). Organizations with caring climates are perceived to align with these principles and demonstrate them through their own policies, procedures, and people (Martin & Cullen, 2006). While researchers have turned attention towards all of the different ethical climates, existing research suggests that employees prefer caring climates compared to the other types of ethical climate (e.g., Cullen et al., 2003; Koh and El'Fred, 2001; Sims & Keon, 1997).

**Instrumental.** Instrumental ethical climates are found when organizations have norms and expectations that encourage ethical decision-making. These norms and expectations of ethical behavior are usually perceived as behavior consistent with personal or organizational benefit. Thus, ethical behavior in an instrumental ethical climate are generally made so a party (e.g., the organization or leadership) can benefit from the positive perception of having such norms. Researchers studying instrumental

ethical climates have found them to be the least favored type of ethical climate (Cullen et al., 2003; Koh and El'Fred, 2001).

**Independence.** Independence climates emerge from the unique moral values of each individual. That is, agents of an organization will primarily make decisions based on their own personal moral code of beliefs. In these types of ethical climates, individuals are likely to make their decisions based on careful consideration of their personal values (e.g., Schminke et al., 2005; Watley, 2002) and unlikely to be swayed or influenced by external parties.

**Law and Code.** Law and code ethical climates focus on a specific set of external rules that provide guidelines on how individuals within an organization should act. These climates tend to emerge from an emphasis on religion (e.g., derived from the bible or Koran) or laws and will often influence an employee's ethical decision-making behavior (Peterson, 2002). For example—an individual may make ethical decisions in order to avoid breaking the law or violating their religious beliefs.

**Rules.** Organizations with rules ethical climates generally have a strong set of internal codes specific to their organization (e.g., code of conduct; Appelbaum et al., 2005; Aquino & Becker, 2005). These rules, often found in mission statements (Aquino & Becker, 2005) govern how an organization's policies and procedures are developed and become further ingrained in the culture of the organization. These types of climates are becoming more popular as modern-day organizations seek to establish their own unique identity.

Given the range of ethical climates that can emerge at any given circumstance, it is not surprising that ethical climate has been linked to a variety of antecedents and

outcomes. In the next section, I turn my attention towards the antecedents and outcomes of ethical climate and discuss the importance of employee job attitudes as an outcome of interest for ethical climate.

### **Antecedents of Ethical Climate**

The antecedents of ethical climates can be categorized into three different types—factors external to the organization, organizational form, and managerial and strategic orientation. The idea that external factors precede ethical climate is founded within institutional and ethical climate theory. According to institutional theory, organizations often find themselves reacting to external forces (DiMaggio and Powell, 1983). Moreover, ethical climate theory further suggests that these external forces will influence the type of ethical climate that emerges (Martin & Cullen, 2006). For example, organizations nested within the finance industry need to develop rules, policies, and procedures that address current banking regulations. In turn, employees are exposed to both of these factors when trying to interpret their work contexts. Research has supported this notion, providing evidence that suggests external factors are a contributing determinant of emergent ethical climate (Bourne and Snead, 1999) and ethical decision-making behaviors (Cullen, Parboteeah, & Hoegl, 2004).

The second category of antecedents is rooted in Ouchi's research on transactional organizational forms (1980). Ouchi's work suggests that organizations fall into three transactional categories—markets, where the organization's strategy is determined by price fluctuation; clans, where the organization's traditions and values are forced onto employees; and bureaucracies, organizations that are strongly political and governed by norms, rule structures, and reciprocity between agents. In Victor and Cullen's (1988)

initial operationalization and study of the ethical climate construct, Ouchi's (1980) categories of organizational form were found to significantly predict ethical climate perceptions. Additional work by Wimbush, Shepard, and Markham (1997) further confirmed this notion indicating that these unique theoretical classifications of organizations could help systematically predict which ethical climate type would emerge from consensus perceptions. More recent studies into organizational form and ethical climate have focused on further exploring the extent of this relationship across departments (Liu, Fellows, & Ng, 2004; Weber and Seger, 2002), and in non-profit organizations (Brower and Shrader, 2000).

Managerial and strategic orientations represent the final and most proximal antecedent of ethical climate. Research has produced a variety of orientations that have been found to impact individual ethical climate perceptions or internal ethical codes—both entrepreneurial and non-entrepreneurial orientation (Neubaum, Mitchell, & Schminke, 2004), stakeholder management style (Morris, 1997), and leadership orientations and moral development (Schminke, Ambrose, & Neubaum, 2005).

Research appears relatively consistent on the antecedents of ethical climate. These factors tend to be external to the organization (e.g., external laws/regulations), based on organizational form (e.g., influenced by internal structure or politics), or emergent from managerial/strategic orientation. Researchers have also investigated outcomes of ethical climate, which I will discuss in the next section.

### **Consequences of Ethical Climate**

The majority of outcomes studied in the ethical climate literature appear to be attitude-based outcomes, specifically centered around organizational commitment (e.g.,

Cullen, Parboteeah, & Victor, 2003; Sims and Keon, 1997; Wingreen & Blanton, 2007) and job satisfaction (e.g., Armstrong, Kusuma, & Sweeney, 1999; Deshpande, 1996; Okpara, 2004). Existing empirical and theoretical research suggests that these two concepts are primary outcomes of ethical climate.

Organizational commitment has long been an outcome of interest for ethical climate researchers. According to Kelley and Dorsch (1991), an employee's commitment to their organization is comprised of three factors—a) the degree of support and agreement an employee has for their organization's mission and purpose, b) a willingness to sacrifice for that mission and purpose, and c) an overarching need to remain a member of their organization. Research suggests that when strong caring climates exist, organizational commitment tends to be higher (e.g., Fu & Deshpande, 2014; Tsai & Huang, 2008). Contrary to caring climate's positive relationship with organizational climate, instrumental climates tend to generate an opposite effect whereby when strong instrumental climates exist; organizational commitment is hypothesized to be lower.

In addition to organizational commitment, much of the research on ethical climate has been focused on studying the link between ethical climate and job satisfaction. Multiple studies suggest that ethical climate is linked to several facets of satisfaction—an employee's satisfaction with the job, with opportunities for promotion, with interactions involving colleagues, and with supervisors and management (Deshpande, 1996; Elçi & Alkpan, 2009; Ulrich et al., 2007; Tsai & Huang, 2008). A meta-analysis conducted by Martin & Cullen (2006) support these findings, indicating a strong association between ethical climate and job satisfaction. Given the variety of ethical climates that can emerge, the directionality of the ethical climate and job satisfaction relationship will be dependent

on the type of ethical climate employees perceive. Martin and Cullen's review of the existing literature suggests that both caring and law and code climates exhibited a strong positive relationship with increased satisfaction, whereas instrumental climates displayed a reverse effect.

While most of the empirical research on ethical climate has focused on attitude-based outcomes, this seems to be the norm for climate studies. Another focused climate that has been studied in a similar manner is service climate. In the next section, I provide an overview of the service climate construct and explain why service and ethical climate are optimal candidates for understanding how multiple climates interact with one another.

### **Service Climate**

Service climate has been one of the more extensively studied outcome-focused climates in the organizational literature (Schneider et al., 2013). The study of service climate has been particularly useful for organizations that include customer service as part of their business outcomes. Early theories of service climate focused on four primary components: a) the degree of emphasis an organization places on the customer and how much they understand the customer's wants, needs, and expectations, b) an effort to market or communicate a service-related strategy that emphasizes superior customer service and explains how it will be delivered, c) the use and development of systems, interfaces, and processes that are customer-friendly, and d) having employees who are trained to be customer oriented and to provide quality customer service at all levels of the organization (Albrecht & Zemke, 1985). Schneider, Wheeler, and Cox (1992) sought to build on Albrecht and Zemke's work to further clarify the service climate construct. Schneider et al. (1992) analyzed the content of multiple panel

interviews to extract themes regarding an organization's service climate. Their findings suggested a more encompassing approach to service climate, indicating that employee perceptions of a high-quality service climate were tied to six different themes: a) proactively requesting and responding to customer feedback, b) establishing clear procedures for how service is to be delivered, c) ensuring that hiring procedures were reflective of aiming for quality service, d) providing performance-related feedback tied to customer service, e) offering compensation equity, and f) training that emphasizes service-related behaviors (Schneider et al., 1992). While the service climate construct has evolved over time, Schneider et al. (1998) offer a popular definition—“employee perceptions of the practices, procedures, and behaviors that get rewarded, supported, and are expected with regard to customer service, and customer service quality (p.151).” Researchers continue to use this definition in recent service climate literature (e.g., Hong et al., 2013; Schneider et al., 2009). In the next section, I will describe the antecedents and consequences of service climate and explain why service climate is a prime candidate for examining competing climates.

### **Antecedents of Service Climate**

Organizational researchers have both theorized and empirically tested with different variables to better understand what contextual factors precede the emergence of service climate (Hong et al., 2013; Bowen & Schneider, 2014) and have identified a variety of common antecedents that seem to emerge across studies. These antecedents are typically characterized by a focus from within the organization and support from leadership and management.

HR practices have been studied extensively in relation to service climate (e.g., Bowen & Ostroff, 2004; Combs, Liu, Hall, & Ketchen, 2006) and are characterized by an internal focus within the organization. HR practices are often broadly focused (e.g., having HR processes in place to support general positive performance) and are typically put in place to communicate to employees the standards that are rewarded, supported, and expected at the organization (Bowen & Ostroff, 2004). Studies regarding broadly focused HR practices have primarily emphasized a high-performance orientation and are intended to improve an employee's motivation and general ability to perform (Combs et al., 2006). Some examples of broadly-focused HR systems include setting high performance goals for performance management (Huselid, 1995), empowering and supporting employees to achieve and problem-solve (Seibert, Silver, & Randolph, 2004), and focusing recruiting and selection efforts towards those of high-performing individuals (Kehoe & Wright 2013). In organizations that value customer service, these HR practices are often tied to more specific service-related outcomes (e.g., service quality; Liao, Toya, Lepak, & Hong, 2009) which often lead to a strong service climate (Jong et al., 2004). For example, goals set to manage performance would be specifically service oriented, management would empower their employees to engage in service-related behaviors, and sourcing strategies would be specifically oriented towards attracting and selecting individuals with service backgrounds.

Managerial behavior has also been identified as a common antecedent to service climate (Borucki & Burke, 1999; Schneider & Bowen, 1985; Schneider, White, & Paul, 1998). Managers (including supervisors and team or unit leaders) are important references for employees. Given their proximity and their standing in the organization,



they essentially function as key sources of message delivery and support. Additionally, managers have the opportunity to emphasize service delivery through communication with their direct reports. This often occurs through a focus on ensuring quality service experience (e.g., providing weekly reminders of how to handle challenging customer situations; Salvaggio, et al., 2007) or general positive leadership (Schneider et al., 2005).

### **Consequences of Service Climate**

Service climate has been examined in relation to a variety of different work-related outcomes such as job satisfaction (Locke, 1976), organizational commitment (Lenka, Suar, & Mohapatra, 2010; Schneider, Smith & Goldstein, 2000), organizational citizenship behaviors (Way, Sturman, & Raab, 2010), service performance (Kiker & Motowidlo, 1999), affect, intent to stay (Schulte et al., 2009), task performance (Way, Sturman, & Rab, 2010), employee performance, customer perceptions of service quality, customer satisfaction (Schneider et al., 1998), and objective financial performance (Jiang, Chuang, & Chiao, 2015). While there are numerous service climate and outcome relationships, most empirical studies of service climate focus on job attitudes or customer-related outcomes (e.g., customer satisfaction, perceptions of service quality). Given the scope of this dissertation, I will focus specifically on the service climate and employee attitudes relationships.

Previous studies suggest a strong link between service climate, job satisfaction, and organizational commitment (Hong et al., 2013; Lenka, Suar, & Mohapatra, 2010; Schneider et al., 2000). This is likely a function of an organization's ability to attract, select, and retain employees who are in alignment with the organization's mission (Schneider, 1987). According to Schneider (1987), organizations are a function of their

people, and driven by an ability to a) attract employees that align both personally and professionally with the organization, b) select employees into the organization that align with the organizations values and mission, and c) systematically or unsystematically remove employees who are not in alignment with the organization. Further research by Kiker and Motiwidlo (1999) suggests that the relationship between service climate and employee attitudes may also be attributed to how specific service-related performance is rewarded. Service climate researchers seem to be in agreement with these perspectives as indicated by work from Schneider, Smith, & Goldstein (2000) and Lenka, Suar & Mohapatra (2010). Typically, employees who are brought into organizations that value service quality are aligned in their understanding and valuing of customer service (Schneider, Smith, & Goldstein, 2000). These employees then find themselves identifying with the organization's values and in turn have a stronger sense of job satisfaction and commitment to the work (Lenka, Suar & Mohapatra, 2010). Additionally, emphasizing the customer experience typically results in employees attributing more meaning into what they do and how they can best serve the customer (Hong et al., 2013). Thus, as employees become more aligned with their organization's service-orientation, rewarding those service-related behaviors are likely to lead to greater job satisfaction and organizational commitment (Hong et al., 2013). In the next section, I expand on both job satisfaction and organizational commitment and highlight the importance of studying both outcomes in a multiple climates context.

### **Job Attitudes**

When employees perceive different aspects of their work environment, they often develop evaluative dispositions towards each of those different characteristics; these

evaluative dispositions are known as job attitudes (Schleicher, Hansen, & Fox, 2011). These job attitudes can be positive, negative, or neutral and play a key role in the development of an employee's affective reactions to certain work characteristics (Albarracin, Johnson, & Zanna, 2005). Researchers agree that job attitudes can be conceptualized through three different factors: a) an affective component where feelings are developed by the perceived referent (e.g., a strong feeling of fear towards a senior manager), b) a cognitive component characterized by how individuals think about the referent (e.g., whether an employee feels a superior is qualified or unqualified), and c) a behavioral component that consists of an employee's natural tendency to react to the referent with specific behavioral cues (e.g., excusing themselves when a co-worker enters a conversation; Breckler, 1984). However, it is important to note that not all job attitudes require all components of the three factor model to develop. Employees will often create a single evaluation based on one or more of the different components and use this evaluation to drive any future intentions or attitudes (Ajzen, 2001). Thus, if a new policy at work elicits anger within an employee; future behavioral cues consistent with that anger will likely follow. Job attitudes have been extensively studied as key antecedents for employee behavior (Ajzen, 1985, Glasman & Albarracin, 2006; Kraus, 2005) and are important for understanding how work climates elicit individual employee behavior. While there are many job attitudes that have been studied in relation to work-related predictors, amongst the most popular (Schleicher et al., 2011) and relevant for the current study are job satisfaction and organizational commitment—both of which have been studied in multiple climate contexts.

## **Job Satisfaction**

Job satisfaction is the most widely studied job attitude within the organizational literature (Spector, 1997). Researchers typically define job satisfaction as a stable attitude towards an employee's work that is formed because of evaluation, emotion, and prior behavior (Hulin & Judge, 2003; Weiss, 2002). While early researchers focused on job satisfaction as a global-level evaluation (i.e., one single evaluation for the entirety of an employee's work experience), more recent studies have emphasized a facet-level approach which focuses on different aspects of an employee's work. These aspects can include, but are not limited to areas such as compensation, advancement opportunities, managers or supervisors, co-workers, etc. The facet level approach is also consistent with multiple studies of organizational climate. Researchers would often examine facet-level job satisfaction to understand how specific employee perceptions of different aspects of their work environment were evaluated. Recent studies support the notion that ethical climate (Deshpande, 1996; Tsai & Huang, 2008) and service climate (Salanova, Agut, & Peiro, 2005) are both tied to employee job satisfaction.

## **Organizational Commitment**

While job satisfaction focuses on how content an employee is with their work, organizational commitment focuses on how strongly an employee identifies and is involved with his or her organization (Porter, Steers, Mowday, & Boulian, 1974). An employee's organizational commitment is reflective of multiple components: a) affect that can be characterized as emotional attachment with one's organization; b) cognition, which is characterized by an alignment or identification with values, norms, and goals; and c) action readiness, which is characterized by a tendency to act in the organization's

interest (Solinger, Van Olffen, & Roe, 2008). These three components work in combination to develop an employee's overall level of commitment to their organization. Similar to job satisfaction, organizational commitment has also been studied in relation to work climates and contextual perceptions (Mathieu & Zajac, 1990; Podsakoff, Lepine, & Lepine., 2007). Recent climate research also suggests strong ties between organizational commitment and ethical climate (Cullen, Parboteeah, & Victor, 2003) and service climate (Paulin, Ferguson, & Bergeron, 2006).

Job satisfaction and organizational commitment, like all job attitudes, play a key role in helping understand the link between employee perceptions of their work environment and behavioral intentions. These job attitudes have been studied in the context of climates, more specifically ethical and service climates, and have been identified as outcomes of interest in the current study. In the next section, I discuss recent studies examining the notion of competing climates and argue for adapting an existing theoretical framework.

### **Ethical Climate and Service Climate**

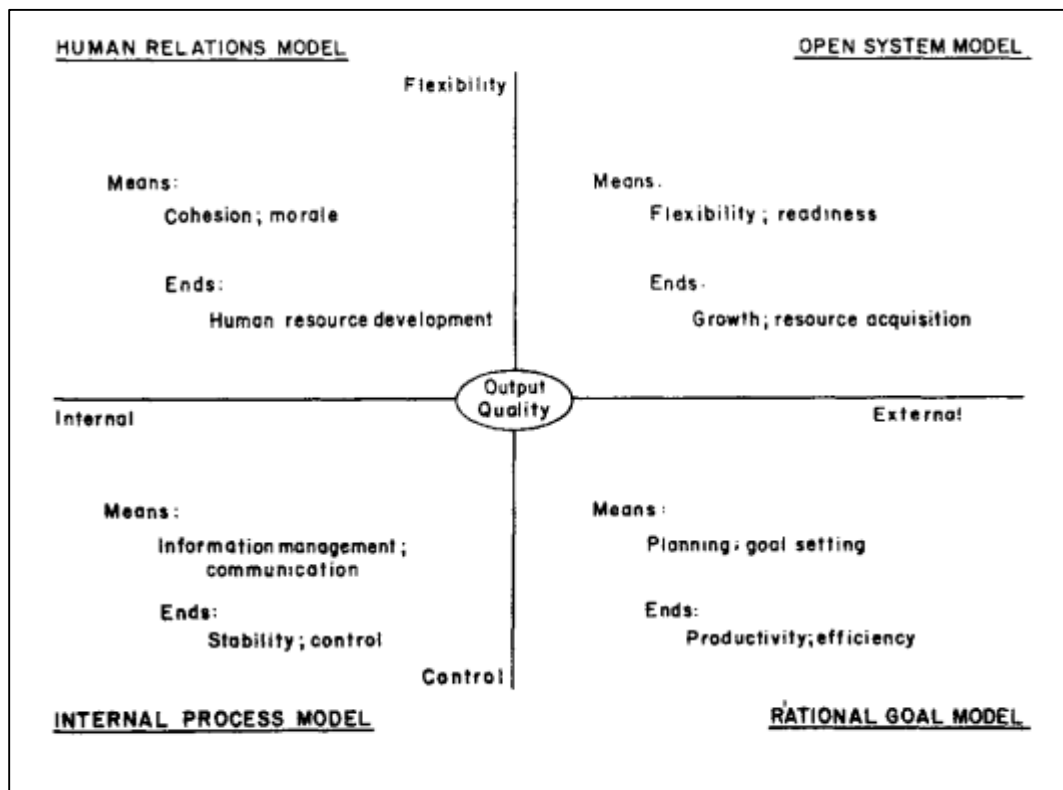
The existence of multiple climates within an organization has been discussed throughout the literature (Schneider & Snyder, 1975). While ethical climate and service climate have been independently linked to important work outcomes, only recently have researchers examined both simultaneously (e.g., Jiang et al., 2017; Myer, Thoroughgood, & Mohammed, 2016). Myer et al. (2016) examined how both ethical and service climates interacted to impact organizational financial performance. Myer et al.'s results suggest that focusing highly on both service and ethics simultaneously will more often lead to increased financial performance as opposed to emphasizing just one or the other.

Jiang et al. (2017) similarly examined ethical and service climate related to specific customer-oriented, business outcomes. Jiang et al.,'s results suggest that both service and ethical behaviors interact to impact business performance. Specifically, they found that service behaviors were much more positively related with business performance when unethical behaviors were low. Myer et al. (2016) and Jiang et al. (2017) are important for two reasons—a) their research offers early validation for examining service climate and ethical climate simultaneously, and b) both studies begin to explore the notion of competing climates through direct measurement. While the study of multiple climates continues to develop, it is clear that multiple climates do exist and may compete with each other through various mechanisms (Schneider et al., 2013). To further understand this phenomenon, I utilize Quinn and Rohrbaugh's (1981) competing values framework (CVF) to help provide a theoretical framework for understanding how multiple, competing climates can impact employee attitudes.

### **The Competing Values Framework (CVF)**

The Competing Values Framework was initially developed as a means for integrating and understanding the different theories of organizational effectiveness. Up until 1981, multiple theories of organizational effectiveness had been posited; however, there was little agreement as to how different theories coexisted and the field remained relatively fragmented (Quinn & Rohrbaugh, 1983). The CVF was created to address this fragmentation and integrate existing theories. The CVF describes output quality (or effectiveness) as a function of competition between two types of values—the balance between flexibility and control (or structure), and that of the individual versus the organization. That is, effectiveness is dependent on the competition between different,

competing values. The original Competing Values Framework from Quinn & Rohrbaugh (1983) can be found in Figure 1.



**Figure 1** *The Competing Values Framework*

The CVF has served as the mainstay for organizational effectiveness research for a myriad of reasons: 1) it is an integrative theory of effectiveness that accounts for earlier theories (e.g., Gouldner, 1959; Scott, 1977), 2) it accounts for the multiplicity of criteria, 3) it was developed with the understanding that there are inherent relationships between criteria, and 4) it accounts for the dynamic nature of organizations (Quinn & Rohrbaugh, 1983). While the competing values framework has primarily been used to provide a theoretical framework for the organizational effectiveness literature in its infancy (Ostroff & Schmitt, 1993; Rohrbaugh, 1981; Rojas, 2000), it has also been

adapted to other subsections of the organizational literature such as organizational culture (Cameron & Quinn, 2005; Denison & Spreitzer, 1991; Goodman, Zammuto, & Gifford, 2001; Hartnell, Ou, & Kinicki, 2011; Hooijberg & Petrock, 1993; Howard, 1998;), leadership (Belasen & Frank, 2008; Cameron, Quinn, DeGraff, & Thakor, 2014; Zafft, Adams, & Matkin, 2009), and climate (MacCormick & Parker, 2010; Paul 2012). Within the study of climate, the CVF has been primarily used as a means for understanding how multiple climates exist and the competition between them.

While researchers have begun to examine multiple climates simultaneously, only a handful of studies have supported the use of the CVF to understand how multiple climates compete. Two examples are MacCormick and Parker (2010) and Paul (2012). MacCormick and Parker (2010) posited that multiple climates exist and function in a complementary way to impact business-unit performance. They identified staff engagement and customer loyalty as two potential avenues by which climate may ultimately impact performance. Using the competing values framework, MacCormick and Parker sought to further understand the nuances of the climate and performance relationship. They began by identifying “climates for something” that aligned with Quinn and Rohrbaugh’s model—climate for internal flexibility, climate for external flexibility, climate for external control, and climate for internal control, each conceptualized at the group/unit level. High levels of each of these climates were hypothesized to have a compounding effect on performance. For example, if a strong climate of external control and a strong climate of flexibility coexisted simultaneously, there would be a stronger impact on performance than if there were only a strong climate of external control and no climate of flexibility. MacCormick and Parker’s findings



suggest that when certain types of climates existed simultaneously, they resulted in much stronger performance than when only one climate existed. This lends support to their initial assertion—that simultaneously existing climates do in fact interact to impact outcomes. First, they extend climate research into a relatively new area of study—multiple climates. Secondly, they confirm the usefulness of the competing values framework in understanding how multiple, competing climates can have a functional impact on effectiveness outcomes.

Building on the work of MacCormick and Parker (2010), Paul (2012) examined focused climates and tested the concept of competition amongst them. Paul sought to examine whether the interaction between service and safety climates would affect facet-level and overall performance. Paul suggested that two distinctly focused climates would have unique conflicting outcomes, and employees would be impacted when trying to adhere to different stimuli and group norms dictated by multiple, competing climates. Paul's model plotted service and safety climate onto the competing axes of the CVF with service climate characterized by a focus on external agents (e.g., customers, clients) and flexibility characterized by having to adapt to the needs of these external agents. Additionally, Paul mapped safety climate on to the competing values framework given safety climate's focus on internal agents (i.e., employee safety) and control (e.g., adhering to safety rules, procedures, policies). Paul (2012) hypothesized that a strong safety or service climate would moderate a direct relationship between a particular climate and the appropriate performance outcome (e.g., strong service climate would moderate the direct relationship between safety climate and safety performance). Unfortunately, design challenges rendered Paul's results inconclusive. In the next

section, I describe my plan for utilizing the CVF and directly testing the notion that multiple climates exist and that they compete to impact work-related outcomes.

### **Hypotheses**

As indicated by recent climate research on multiple climates (e.g., Jiang et al., 2017, Myer et al., 2016), service and ethical climate are prime candidates for studying the notion that climates compete. To truly examine competing climates in the frame of the competing values framework, climates need to be theoretically distinct in their focus (internal agents vs. external agents; flexibility vs. control). Examining climate constructs that are similar increases the difficulty of identifying interactions. Ethical and service climate, while still focused-climate constructs, function on opposite ends of two spectrums of the CVF. While both can be characterized as focused climates, ethical climate maintains a strong orientation towards the internal and the control ends of the competing values framework spectrum (as characterized by a focus on internal employees and maintaining control over ethical standards). In contrast, service climate falls on the opposite end of the spectrum, leaning more towards external and flexibility (as characterized by a focus on the external consumer/customer and having to elicit appropriate behavior to ensure successful customer interactions). As such, ethical and service climates will be used for understanding competing climates in the scope of the competing values framework. The following hypotheses are developed to study the relationship between service and ethical climates.

One way in which researchers examine the impact of organizations on their employees is through the study of perceived organizational support—how much an individual employee feels supported by their organization (Rhoades and Eisenberger,

1986). Perceived organizational support has been linked to a variety of individual-level outcomes, including organizational commitment (Eisenberger, Fasolo, & Davis-LaMastro, 1990) and job satisfaction (Allen, Shore & Griffeth, 2003; Eisenberger, Cummings, Armelo, & Lynch, 1997). When employees feel they are supported, they often engage in more positive interactions within their work setting (Settoon, Bennett, & Liden, 1996). The nature of how these interactions develop and emerge in organizations can be traced back to social exchange theory (Blau, 1964) and the concept of reciprocity (Gouldner, 1960). According to Blau and Gouldner, when organizations make positive decisions specifically directed to benefit employees, this contributes to the development of high-quality exchange relationships and creates obligations for employees to positively reciprocate in turn. In many cases, these positive behaviors can manifest into positive interactions between an employee and their immediate work-group or supervisor. Settoon et al. (1996) found additional evidence for this, discovering a positive relationship between organizational citizenship behaviors and perceived organizational support. Settoon et al.'s research emphasizes the importance of mutual trust, loyalty, and respect in exchanges and in relationships that occur at various levels in an organization. The more trust, loyalty, and respect within a given relationship or exchange, the more likely an employee was to engage in extra-role behaviors.

Caring climates offer additional perspective beyond the concept of perceived organizational support. While conceptually similar to perceived organizational support, caring climates emerge when the majority of individuals in a specific work unit perceive their organization as not only supportive, but also making ethically oriented decisions

with the employee's well-being in mind (Victor & Cullen, 1988). Thus, caring climates should be positively related to job satisfaction and organizational commitment.

**H1:** Caring climates will have a positive relationship with a) job satisfaction and b) organizational commitment.

While caring climates are often considered a desirable emergent ethical climate in the eyes of researchers, they are not the only ethical climates studied. Instrumental climates can often emerge in organizations that do not place a strong emphasis on ethical considerations. This is especially characteristic of organizations where people protect their own interests above all else. From the employee's perspective, organizational decisions and pursuits strictly result in tangible outcomes such as growth or revenue. This view may trickle down through the ranks and may propel employees to focus on their own goals and self-interests, neglecting the well-being of any other parties (Victor & Cullen, 1988).

Like caring climates, instrumental climates have been studied extensively (Martin & Cullen, 2006). For example, Desphande (1996) used meta-analytic techniques to examine how instrumental climates impacted different types of work satisfaction. The results suggest a significant negative relationship between existing instrumental climates and satisfaction with different facets of an employee's work environment—namely, promotions, coworkers, supervisors, and the job itself—that is pervasive throughout organizational literature (Martin & Cullen, 2006). Shafer (2015) also found instrumental climate to be linked to lesser concern for corporate ethics and social responsibility. These findings taken together suggest that a strong instrumental climate can have a negative impact on employee well-being and their propensity to engage in positive ethical

behavior. Consistent with previous research on instrumental climate, this study posits that similar relationships will emerge between instrumental climate and job satisfaction and organizational commitment.

**H2:** Instrumental climates will have a negative relationship with a) job satisfaction and b) organizational commitment.

A strong emphasis on service can inspire employees to ascribe meaning to their work and often leads to a higher level of enjoyment (Locke, 1976). Previous studies with service climate support this notion, demonstrating a relationship between service climate and unit employee job satisfaction (Ostroff et al., 2002). Additionally, organizations with strong service climates will more likely attract, select, and retain employees who place a high value on service—these employees are more likely to identify with the organization's values and are more likely to be committed to the organization (Lenka et al., 2010). Consistent with previous research, it is believed that the direct relationships will exist between service climate and job satisfaction and between service climate and organizational commitment.

**H3:** A strong service climate will have a positive relationship with a) job satisfaction and b) organizational commitment.

The competing values framework consists of two continua—internal vs. external and control vs. flexibility. Both ethical climate and service climate fit into the existing parameters of the CVF. An organization's ethical climate focuses on employees' ability to process and react to moral issues (Cullen, Victor & Stephens, 1989) and is inherently internal to the individual. When employees engage in specific ethical behaviors, and others within the organization observe and do the same, an ethical climate will emerge

(Victor & Cullen, 1988). This ethical climate then impacts the employees within that organization, for better or worse.

In contrast, service climate is inherently focused on parties external to the organization such as clients or customers. The impact of service climate is often assessed through customer experience and feedback (Schneider et al., 1998). While employees perceive varying degrees of service climate, the majority of the focus will be on how the consumer responds to service behaviors. Ethical and service climate represent opposite ends of the flexibility vs. control continuum as well. An ethical climate is often characterized by an internal focus and desire to control ethical behaviors and ethical decision-making as encouragement, rules, codes, and processes are developed and installed internally to help emphasize and reward positive ethical behavior (Cullen et al., 1989). For example, an organization may follow a singular code of ethics (or conduct) that helps dictate work-related behaviors both with internal and external partners. Service climate leans more towards flexibility with organizational agents often required to adapt to the constraints set by their clients, customers, or the overall external market (Hong et al., 2013). An emphasis on service orientation only addresses part of the customer/service employee interaction, introducing a level of uncertainty that the employee will inevitably need to endure. The employee's ability to use their pre-existing service orientation and respond to a customer's unique constraints appropriately will ultimately decide whether the customer has a positive service experience (Hong et al., 2013). While the organization can encourage and reward service-related behaviors internally, evaluation of the service experience will always be dependent on external (e.g., consumer) feedback.

The differences between ethical climate and service climate when it comes to the CVF suggest that either may have a unique impact on specific work outcomes when both climates a) exist, and b) are strong enough to impact employee behavior. Considering that a strong service climate can lead employees to ascribe meaning with their work and often leads to a higher level of enjoyment (Locke, 1976), this study posits that the presence of a strong service climate will strengthen the existing positive relationship between caring climate and employee satisfaction and commitment.

**H4:** A strong service climate will strengthen the positive relationship between caring climate and a) job satisfaction and b) organizational commitment.

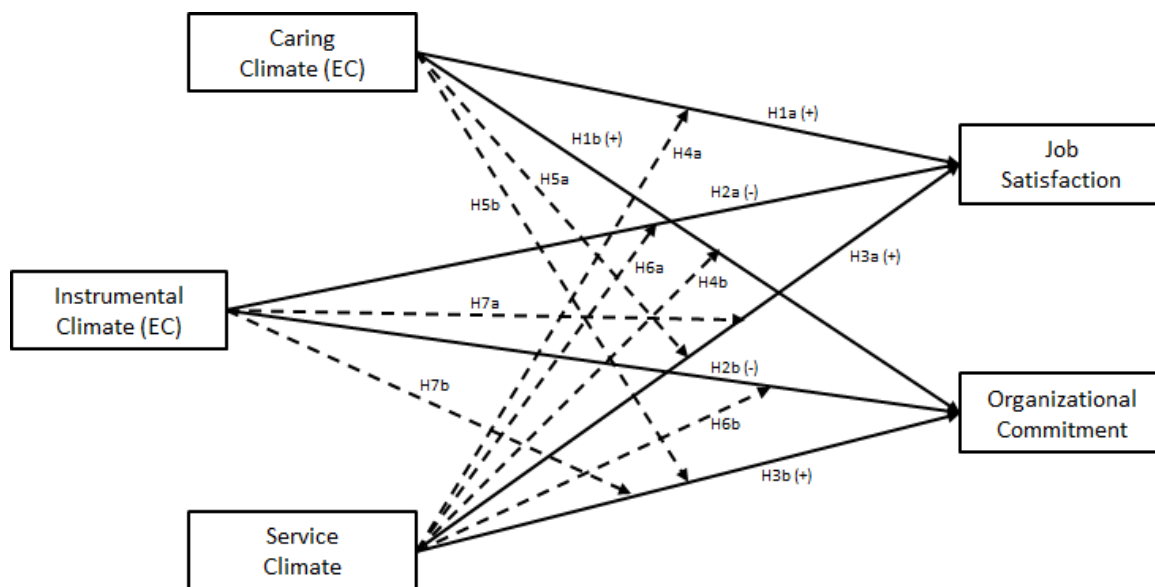
**H5:** A strong caring climate will strengthen the positive relationship between service climate and a) job satisfaction and b) organizational commitment.

Instrumental ethical climates have been found to be consistently negatively related to important organizational outcomes (Hong et al., 2013). Since previous studies suggest that strong service climates have positive relationships with both employee satisfaction and commitment, it is expected that a strong service climate will ‘compete’ with an instrumental ethical climate, attenuating the negative relationship between instrumental climate and employee satisfaction and commitment. Additionally, it is expected that instrumental climates to have the same effect on service climate’s relationship with employee satisfaction and commitment.

**H6:** A strong service climate will attenuate the negative relationship between instrumental climate and a) job satisfaction and b) organizational commitment.

**H7:** A strong instrumental climate will attenuate the positive relationship between service climate and a) job satisfaction and b) organizational commitment.

The competing values framework has enabled comparisons on different theories within the organizational effectiveness domain (Quinn & Rohrbaugh, 1983) and organizational climate (MacCormick and Parker, 2010; Paul, 2012). Initially, MacCormick and Parker's (2010) study laid the foundation for utilizing the CVF to study climate, suggesting that multiple climates do in fact exist simultaneously. Paul (2012) then extended MacCormick and Parker's work by testing this notion meta-analytically. This study seeks to build on existing work, integrating the notion of specific focused/process climates and directly testing the existence and competition of multiple climates. The proposed model can be found in Figure 2. In the next section, I will describe my proposed method for testing the aforementioned hypotheses.



**Figure 2** *Proposed Model*



## **CHAPTER 2**

### **METHOD**

#### **Procedure**

I solicited participants through Amazon Mechanical Turk (MTurk), an open-source marketplace where users are paid to complete specific tasks. Despite being in its relative infancy, previous research comparing MTurk samples to other types of convenience samples suggest that samples solicited through MTurk are: a) as demographically diverse as typical internet samples and more diverse than student samples, and b) as reliable as data obtained through other, more traditional methods (Buhrmester, Kwang, & Gosling, 2011; Casler, Bickel, & Hackett, 2013). Recent climate researchers have also sampled from MTurk when conducting empirical research (e.g., Gils et al., 2015; Tucker, Ogunfowora, & Ehr, 2016). MTurk also gives a researcher the ability to pre-qualify candidates to target a specific sample—in the case of this dissertation, a work sample (Buhrmester et al., 2011). Participants were required to meet pre-qualifications for work experience (at least one year of work experience), to participate in this study. Participants clicked on the study link, and provided their informed consent prior to entering and completing an online questionnaire via Qualtrics. The survey included questions on demographics, ethical climate, service climate, and measures of organizational commitment and job satisfaction. Participants had the option of withdrawing from participation at any time and were ensured that their responses and

information would be kept confidential. All participants were given my contact information if they had any questions or concerns about the study, or if they experienced any technical issues. The questionnaire was anticipated to take approximately 15 minutes to complete, however most participants completed in less than 10 minutes ( $m = 7.7$  minutes,  $SD = 5.89$ ). Upon completion, participants were thanked and given a unique code to submit back to MTurk—this ensured that all participants were unique and allowed for merging of cases between the MTurk and Qualtrics platforms. Participants who returned questionnaires (regardless of whether surveys were 100% completed) were compensated \$1.00 for their time.

### **Participants**

The ability to determine sufficient model fit when using the proposed analyses approach (structural equation modeling) can be limited when examining smaller samples. Consistent with Wolf et al.'s recommendations (2013), I targeted a final sample of at least 500 participants to ensure that meaningful patterns of association can be identified between parameters. The initial sample size of completed matched surveys was 725; however, to be as confident as possible in my analyses and conclusions, I took special precaution to ensure data were free of as much noise (e.g., responses indicative of passive survey engagement, robot responders) as possible. This began with a review of descriptive statistics for all observed variables used to define the appropriate latent constructs. I then created inclusion criteria to further prepare the dataset for the initial measurement model specification. Sample characteristics and demographics can be found in Table 1.

Table 1

*Summary of Final Sample Demographics*

Category	(n = 690)	%
<b>Age</b>		
18-24 years old	39	5.65%
25-34 years old	244	35.36%
35-44 years old	196	28.41%
45-54 years old	111	16.09%
55+	100	14.49%
<b>Ethnicity</b>		
American Indian or Alaska Native	7	1.01%
Asian	34	4.93%
Black or African American	49	7.10%
Native Hawaiian or Other Pacific Islander	1	0.14%
White	576	83.48%
Other	22	3.19%
Prefer not to answer	1	0.14%
<b>Gender</b>		
Female	376	54.49%
Male	297	43.04%
Other	2	0.29%
Prefer not to answer	15	2.17%
<b>Education</b>		
Less than a high school diploma	2	0.29%
High school degree or equivalent (e.g. GED)	58	8.41%
Some college, no degree	139	20.14%
Associate degree (e.g. AA, AS)	105	15.22%
Bachelor's degree (e.g. BA, BS)	277	40.14%
Master's degree (e.g. MA, MS, MEd)	86	12.46%
Professional degree (e.g. MD, DDS, DVM)	16	2.32%
Doctorate (e.g. PhD, EdD)	7	1.01%
<b>Employment Status</b>		
Employed full time (40 or more hours per week)	588	85.22%
Employed part time (up to 39 hours per week)	95	13.77%
Prefer not to answer	7	1.01%
<b>TOTAL</b>	<b>690</b>	<b>100.00%</b>

The final 690 participants met the following inclusion criteria: a) completed 100% of their survey, b) must have completed the survey in over 60 seconds (completing the survey in under 60 seconds is a likely indicator of careless responding; this threshold was set arbitrarily), c) if duplicates existed, only included the earliest of the two duplicate survey sessions, and d) greater than zero variance in response pattern (i.e., not clicking one option for the entirety of the survey; Meade & Craig, 2012).

### **Measures**

**Caring and Instrumental Climate.** I utilized Victor and Cullen's (1988) Ethical Climate Questionnaire (ECQ) to identify Caring and Instrumental ethical climates that may emerge. Out of the 26-items used to tap into varying, specific ethical climates, seven items were used to measure caring climates and a distinct seven items were used to measure instrumental climate. For all ethical climate measures, participants were asked to evaluate the climate of their organization by stating the degree to which several statements describing their firm are true or false, along a six-point Likert-type scale (0 = completely false, 5 = completely true). Some sample items from Victor and Cullen's (1988) ECQ that measure caring climate are "in this company, people protect their own interest above other considerations," and "the most important concern is the good of all people in the company as a whole." Some items from the instrumental climate measure are "People are expected to do anything to further the company's interests, regardless of the consequences." The internal consistency for caring ( $\alpha = 0.87$ ) and instrumental climate ( $\alpha = 0.85$ ) both exceeded the acceptable threshold for scale reliability ( $>0.70$ ).

**Service Climate.** Participants completed Schneider et al.'s (1998) eight-item Global Service Climate Scale to measure their perceptions of service climate. This scale

uses a Likert-type scale to assess service climate, where responses range from 1 (poor) to 5 (excellent). Two sample items from this scale are “How would you rate the overall quality of service provided by your business”, and “How would you rate the leadership shown by management in your business in supporting the service quality effort?” The internal consistency for service climate was  $\alpha = 0.91$ .

**Job satisfaction.** To measure job satisfaction, I used the Job in General (JIG) subscale of the Job Descriptive Index (JDI) originally developed by Balzer et al. (1990). The JIG is composed of a combination of 18 adjectives that are used to help assess overall job satisfaction. Participants will be asked to indicate whether certain adjectives describe their feelings about their job in general (i.e., Yes, No, or Not Sure). The instructions from the JIG are: “Think of your job in general. All in all, what is it like most of the time?” Sample adjectives include “Waste of time”, “Worthwhile”, and “Better than most”. Cronbach’s alpha for this scale indicated that this measure had strong internal consistency ( $\alpha = 0.95$ ).

**Organizational commitment.** To measure organizational commitment, I used Allen & Meyer’s three-model measure of commitment. This scale uses 24 items to measure the affective, continuance, and normative facets of organizational commitment. Participants responded to each question using a 7-point likert-type scale indicating their agreement with each statement (strongly disagree to strongly agree). Two sample statements from this scale include, “I would be very happy to spend the rest of my career with this organization,” and “too much in my life would be disrupted if I decided I wanted to leave my organization now.” Tests of internal consistency for affective commitment ( $\alpha = 0.91$ ), normative commitment ( $\alpha = 0.80$ ), and continuance commitment

( $\alpha = .86$ ) all exceeded the threshold for acceptable scale reliability. The overall organizational commitment scale had an  $\alpha$  of 0.88.

A list of all items per measure can be found in Appendix A.

## **CHAPTER 3**

### **ANALYSIS AND RESULTS**

#### **Analysis**

I tested my hypotheses using structural equation modeling as the conditions of this study were suitable for using a second-generation multivariate method to account for any measurement error and covariance between latent factors. I utilized SPSS 25 to review and prepare the initial dataset, and I used AMOS 21 to perform confirmatory factor analysis (CFA) and Latent Path Structural Equation Modeling to test the competing values framework-based competing climate model. The following results are parsed into chronological sections detailing the complete analysis from start to finish, including data preparation, the CFA of the iterative measurement model, the Latent Path Model analysis, hypotheses testing, and all post-hoc or ad-hoc adjustments or corrections derived from a review of the data.

#### **Preparing the Data for Moderation Analysis**

The purpose of this study was to confirm whether the competing values framework is applicable to the climate domain. This required tests of interaction effects between climates to determine whether these climates compete (see Hypotheses 4-7). To do this requires that data be prepared accordingly and an appropriate measurement model specified to handle any interaction effects between the two competing climates.

In structural equation modeling, and specifically latent path moderation analysis, there are many ways to match and create products of existing observed variables to then be used to create the latent construct of interest. Marsh, Wen, Nagengast, and Hau (2012) recommend a variety of pairing methodologies to create the cross-product indicators of the latent interaction effects, ultimately recommending a reliability-based prioritization that had the most empirical support in successfully yielding statistically reliable indicators. This work was further confirmed by Coenders, Batista-Foguet, and Saris (2008) and is the same approach I took to create the cross-product indicators for the Caring Climate and Service Climate interaction and the Instrumental Climate and Service Climate interaction. To create the latent variables, item-level observations for both ethical climate constructs and service climate were standardized, followed by a stack-ranking of each indicator, within scale, from most reliable to least (using Cronbach's alpha). These indicators were then matched with their counterparts on the other scale of interest to create the final product indicators (e.g., most reliable indicator of service climate was matched with the most reliable indicator of caring climate). This process yielded a set of seven indicators per each latent interaction (Ethics x Service; Instrumental x Service) that were used as part of the initial measurement model and ensuing latent path models.

### **Item & Scale-level Characteristics**

I reviewed item-level characteristics (descriptive statistics, intercorrelations, normality, skewness, heteroscedasticity, and tests of internal consistency) to ensure observed measures were scored correctly, were reflective of previous empirical research, exhibited the expected univariate normality (while helpful, this is not a requirement for



structural equation modeling analyses, though it does give an indication of potential issues that could arise later on), and confirm that there were no missing data within my dataset (a requirement for conducting any CFA or latent path modeling as any missing data would prevent the AMOS 21 software from running any evaluations of model fit). This review yielded further detail on the characteristics of my observed measures and added to the confidence in the initial measurement model. While scale scores were created as a part of this review, they were not included in the overall path model as to leverage structural equation modeling's ability to account for any standard error of measurement at the item level—they were created for the sole purposes of reviewing scale internal consistency. Choosing to use these observed scale scores would limit the utility of structural equation modeling and ultimately prevent my ability to test the competing climates theory within the larger competing values framework.

I reviewed item-level and scale-level descriptives to confirm that no errors had been introduced into the response level scoring, and manually checked response options to ensure scales were being scored accurately and that response options were tied to the correct numerical values—this review also confirmed that there were no missing data. While this review did confirm accurate measurement, it also revealed some potential challenges with large negative skew at the scale level with the exogenous outcome job satisfaction (more on this in Chapter 4 “Limitations”). If I were using a different multivariate technique (e.g., multiple regression) to test my hypotheses, I would have pursued transformations as univariate normality is an assumption necessary for accurately interpreting multiple regression results. However, I decided not to transform this variable to force a normal distribution as univariate normality is not a requirement for structural

equation modeling normality and another step (i.e., bootstrapping) was taken to address violations of multivariate normality (more in Chapter 3 “Tests of Assumptions”). Tables 2 and 3 provide item- and scale-level descriptive statistics.

Table 2

*Observed Item-level Descriptives*

	N	Range	Min	Max	Mean	SD	Variance	Skewness	S-SE	Kurtosis	K-SE
CaringClimate1	690	5	0	5	3.02	1.29	1.65	-0.61	0.09	-0.26	0.19
CaringClimate2	690	5	0	5	3.00	1.32	1.73	-0.54	0.09	-0.32	0.19
CaringClimate3	690	5	0	5	2.69	1.28	1.65	-0.23	0.09	-0.57	0.19
CaringClimate4	690	5	0	5	3.24	1.26	1.58	-0.60	0.09	-0.06	0.19
CaringClimate5	690	5	0	5	3.91	1.13	1.28	-1.15	0.09	1.16	0.19
CaringClimate6	690	5	0	5	2.84	1.36	1.84	-0.28	0.09	-0.66	0.19
CaringClimate7	690	5	0	5	3.50	1.18	1.39	-0.74	0.09	0.29	0.19
InstrumentalClimate1	690	5	0	5	2.53	1.42	2.02	0.06	0.09	-0.89	0.19
InstrumentalClimate2	690	5	0	5	2.29	1.50	2.26	0.25	0.09	-0.98	0.19
InstrumentalClimate3	690	5	0	5	1.99	1.39	1.92	0.42	0.09	-0.62	0.19
InstrumentalClimate4	690	5	0	5	1.84	1.50	2.25	0.40	0.09	-0.88	0.19
InstrumentalClimate5	690	5	0	5	2.17	1.39	1.93	0.07	0.09	-0.90	0.19
InstrumentalClimate6	690	5	0	5	2.19	1.46	2.13	0.16	0.09	-0.96	0.19
InstrumentalClimate7	690	5	0	5	2.46	1.43	2.05	-0.09	0.09	-0.93	0.19
ServiceClimate1	690	4	1	5	3.80	0.87	0.76	-0.61	0.09	0.38	0.19
ServiceClimate2	690	4	1	5	3.49	1.09	1.19	-0.39	0.09	-0.57	0.19
ServiceClimate3	690	4	1	5	2.95	1.27	1.61	-0.06	0.09	-1.05	0.19
ServiceClimate4	690	4	1	5	3.88	0.94	0.88	-0.62	0.09	0.00	0.19
ServiceClimate5	690	4	1	5	3.43	1.14	1.31	-0.46	0.09	-0.51	0.19
ServiceClimate6	690	4	1	5	3.42	1.12	1.26	-0.41	0.09	-0.53	0.19
ServiceClimate7	690	4	1	5	3.57	1.07	1.14	-0.50	0.09	-0.37	0.19
JobSatisfaction1	690	3	0	3	2.40	1.20	1.44	-1.50	0.09	0.26	0.19
JobSatisfaction2	690	3	0	3	2.62	1.00	1.00	-2.24	0.09	3.02	0.19
JobSatisfaction3	690	3	0	3	1.93	1.44	2.06	-0.61	0.09	-1.64	0.19
JobSatisfaction4	690	3	0	3	2.63	0.99	0.98	-2.28	0.09	3.20	0.19

Table 2 (Continued)

JobSatisfaction5	690	3	0	3	2.55	1.07	1.15	-1.97	0.09	1.90	0.19
JobSatisfaction6	690	3	0	3	2.51	1.11	1.23	-1.82	0.09	1.32	0.19
JobSatisfaction7	690	3	0	3	2.49	1.13	1.27	-1.77	0.09	1.12	0.19
JobSatisfaction8	690	3	0	3	2.66	0.96	0.91	-2.43	0.09	3.90	0.19
JobSatisfaction9	690	3	0	3	2.70	0.91	0.82	-2.65	0.09	5.02	0.19
JobSatisfaction10	690	3	0	3	1.52	1.50	2.25	-0.02	0.09	-2.01	0.19
JobSatisfaction11	690	3	0	3	2.13	1.36	1.86	-0.93	0.09	-1.14	0.19
JobSatisfaction12	690	3	0	3	2.62	1.00	1.00	-2.24	0.09	3.02	0.19
JobSatisfaction13	690	3	0	3	2.28	1.28	1.64	-1.23	0.09	-0.50	0.19
JobSatisfaction14	690	3	0	3	2.51	1.11	1.23	-1.84	0.09	1.37	0.19
JobSatisfaction15	690	3	0	3	1.75	1.48	2.19	-0.34	0.09	-1.89	0.19
JobSatisfaction16	690	3	0	3	2.71	0.88	0.78	-2.76	0.09	5.61	0.19
JobSatisfaction17	690	3	0	3	2.26	1.29	1.67	-1.18	0.09	-0.61	0.19
JobSatisfaction18	690	3	0	3	2.63	0.98	0.96	-2.32	0.09	3.39	0.19
OrgCommitment1	690	6	1	7	4.56	1.94	3.76	-0.55	0.09	-0.92	0.19
OrgCommitment2	690	6	1	7	4.62	1.78	3.16	-0.58	0.09	-0.68	0.19
OrgCommitment3	690	6	1	7	4.15	1.90	3.59	-0.25	0.09	-1.12	0.19
OrgCommitment4	690	6	1	7	4.41	1.83	3.36	-0.40	0.09	-0.94	0.19
OrgCommitment5	690	6	1	7	3.30	1.84	3.40	0.51	0.09	-0.88	0.19
OrgCommitment6	690	6	1	7	3.48	1.92	3.68	0.40	0.09	-1.06	0.19
OrgCommitment7	690	6	1	7	4.48	1.83	3.34	-0.42	0.09	-0.88	0.19
OrgCommitment8	690	6	1	7	3.33	1.86	3.45	0.52	0.09	-0.90	0.19
OrgCommitment9	690	6	1	7	3.34	2.00	4.01	0.39	0.09	-1.21	0.19
OrgCommitment10	690	6	1	7	4.54	1.83	3.35	-0.45	0.09	-0.92	0.19
OrgCommitment11	690	6	1	7	4.65	1.86	3.45	-0.53	0.09	-0.87	0.19
OrgCommitment12	690	6	1	7	3.56	1.94	3.75	0.20	0.09	-1.26	0.19
OrgCommitment13	690	6	1	7	4.76	1.78	3.15	-0.57	0.09	-0.67	0.19
OrgCommitment14	690	6	1	7	4.12	1.90	3.59	-0.10	0.09	-1.16	0.19

Table 2 (Continued)

OrgCommitment15	690	6	1	7	4.34	1.91	3.64	-0.30	0.09	-1.11	0.19
OrgCommitment16	690	6	1	7	4.49	1.86	3.46	-0.37	0.09	-0.96	0.19
OrgCommitment17	690	6	1	7	4.17	1.77	3.12	-0.23	0.09	-0.94	0.19
OrgCommitment18	690	6	1	7	4.30	1.82	3.31	-0.20	0.09	-0.99	0.19
OrgCommitment19	690	6	1	7	4.56	1.77	3.14	-0.39	0.09	-0.82	0.19
OrgCommitment20	690	6	1	7	3.86	1.79	3.22	-0.07	0.09	-1.06	0.19
OrgCommitment21	690	6	1	7	3.23	1.83	3.33	0.47	0.09	-0.87	0.19
OrgCommitment22	690	6	1	7	3.96	1.75	3.06	-0.18	0.09	-0.96	0.19
OrgCommitment23	690	6	1	7	4.12	1.71	2.94	-0.18	0.09	-0.79	0.19

Table 3

*Computed Scale Descriptives*

	N	Range	Min	Max	Mean	M-SE	SD	Variance	Skewness	S-SE	Kurtosis	K-SE	$\alpha$
Caring Climate	690	35	0	35	22.19	0.25	6.58	43.32	-0.47	0.09	0.17	0.19	0.87
Instrumental Climate	690	35	0	35	15.46	0.28	7.29	53.10	0.17	0.09	-0.39	0.19	0.85
Service Climate	690	28	7	35	24.53	0.23	6.11	37.36	-0.41	0.09	-0.24	0.19	0.91
Job Satisfaction	690	54	0	54	42.90	0.58	15.33	235.14	-1.52	0.09	1.24	0.19	0.95
Affective Commitment	690	48	8	56	35.30	0.45	11.73	137.63	-0.33	0.09	-0.59	0.19	0.91
Continuance Commitment	690	48	8	56	36.01	0.37	9.74	94.91	-0.22	0.09	-0.24	0.19	0.80
Normative Commitment	690	48	8	56	30.46	0.38	10.03	100.62	-0.04	0.09	-0.13	0.19	0.86
Organizational Commitment	690	128	40	168	101.76	0.87	22.80	519.89	-0.06	0.09	-0.17	0.19	0.88
Caring x Service Interaction	690	51.31	-9.24	42.07	2.88	0.22	5.71	32.61	2.31	0.09	7.63	0.19	--
Instrumental x Service Interaction	690	42.89	-24.14	18.74	-1.28	0.18	4.77	22.75	-0.53	0.09	4.18	0.19	--

### **CFA of Measurement Model**

The first step in any structural-equation-modeling analysis is to correctly specify and identify a measurement model that will be used to test any theory-based hypotheses (Hoyle, 2012). This starts with the initial development of the model in the appropriate structural equation modeling software and using confirmatory factor analysis (CFA) to evaluate the fit between the measurement model and the existing dataset. This step includes: a) ensuring that the model being developed is accurately representative of the theoretical latent constructs being measured (unidimensionality), b) evaluating of multivariate normality to inform any further steps taken during the review of the latent path modeling, c) an evaluation of model fit and construct validity, and d) any re-specification or refinements that need to be made to the model prior to moving to the latent path model. The initial measurement model was tested using maximum likelihood estimation with all observed measures forming their respective latent constructs (e.g., job satisfaction indicators forming the latent construct of job satisfaction). I then created error terms for each observed measure and defined covariances between all latent constructs to account for any covarying relationships.

### **Tests of Multivariate Assumptions**

Like many other statistical tests, structural equation modeling requires that certain assumptions regarding the sample are satisfied to ensure acceptable generalizability of the model and supporting conclusions (Hoyle, 2012). The assumptions for structural equation modeling include independence of observations, multicollinearity of predictors, and multivariate normality of distributions.

The assumption for independence of observations was met by the cross-sectional design of this study and ensuring that survey responses were collected at a single point in time and constrained to a single respondent per set of responses. This assumption is typically more appropriate for longitudinal study designs where measurement can be conducted across different points in time—in this scenario, these different time points would need to be matched into the same case (i.e., a single individual with data collected at time one, two, and three would need to be tracked as a single case instead of being treated as three different cases reflective of three points in time).

The assumption of multicollinearity was met by examining each scale-level variable regressed on both dependent variables (organizational commitment and job satisfaction) in a multiple regression model. If multicollinearity were violated for a specific construct, I would expect to see a variance inflation factor (VIF) of greater than 10 indicating that the exogenous constructs included in the regression model result in multicollinearity. I examined this assumption in SPSS to determine whether the multivariate assumption of multicollinearity was satisfied. Specifically, when regressed on Job Satisfaction and Organizational Commitment, Caring Climate (VIF = 2.14), Instrumental Climate (VIF = 1.12), and Service Climate (VIF = 2.17) all fell below the requisite threshold, signaling that the assumption for multicollinearity was satisfied.

The assumption for multivariate normality was tested in AMOS 21. This test yielded a skewness statistics and critical ratios for each observed measure that can be found in Table 4. To confirm normality, I relied on the critical ratios (interpreted as z-scores) that can signal whether the data meet the assumption of normality—anything outside the range of -1.96 to 1.96 can be considered a violation of the assumption of

normality. A review of the skewness statistics and associated critical ratios in Table 4 indicate that multivariate normality was outside of this range for 73/77 observed measures, indicating a violation of this assumption. This is not surprising as according to Kline (2011), structural equation modeling with larger sample sizes (>200) are more likely to result in skewed or non-normal distributions. The violation of multivariate normality indicates a risk of inflating Type 2 error given the lack of variability in the observed measures—this in turn can result in misfit of the final model (Hoyle, 2012). Hancock and Liu (2012) have outlined multiple methods for adjusting for non-normal data, including a) using an asymptotically distribution-free estimation method such as robust maximum likelihood or weighted least squares (Browne, 1984), but this can result in more conservative estimates and inflate Type 2 error; b) correcting the final model fit statistics and parameter standard errors depending on the circumstances of the model to account for the non-normality of the data (Satorra & Bentler, 1994), but this is only available in certain statistical packages; and c) bootstrapping the sample to create empirical distributions that would yield simulated, normal results, which requires a larger sample size to complete. While all three are viable options, there is evidence that suggests the bootstrapping methodology can contain less bias than the other methodologies in conditions where multivariate normality is violated. This process involves creating adjusted standard errors that are drawn from an empirical subset of bootstrapped observations that simulate normal conditions. A number of bootstrapped observations are specified along with expected confidence intervals for the adjusted estimates. The model is then fit to each bootstrapped sample to derive the appropriate corrections. For the purposes of this study, I followed the bootstrapping method



consistent with guidance provided by Nevitt and Hancock (2011), suggesting that  $B \geq 250$  for estimating the corrected standard errors. To be confident in any outcomes, confidence intervals were adjusted from the default 0.9 (set by AMOS 21) to 0.95.

Table 4

*Observed Normality*

Variable	skew	critical ratio
Instrumental x Service Interaction 7	-0.49	-5.21
Instrumental x Service Interaction 6	-0.64	-6.88
Instrumental x Service Interaction 5	-0.74	-7.95
Instrumental x Service Interaction 4	-0.20	-2.18
Instrumental x Service Interaction 3	-0.02	-0.22
Instrumental x Service Interaction 2	-0.85	-9.08
Instrumental x Service Interaction 1	-0.19	-2.05
Caring x Service Interaction 7	1.34	14.32
Caring x Service Interaction 6	1.54	16.56
Caring x Service Interaction 5	1.66	17.82
Caring x Service Interaction 4	1.51	16.19
Caring x Service Interaction 3	1.31	14.09
Caring x Service Interaction 2	3.03	32.50
Caring x Service Interaction 1	0.91	9.78
Org Commitment 24	0.01	0.08
Org Commitment 23	-0.18	-1.93
Org Commitment 22	-0.18	-1.92
Org Commitment 21	0.47	5.06
Org Commitment 20	-0.07	-0.71
Org Commitment 19	0.39	4.16
Org Commitment 18	0.20	2.10
Org Commitment 17	-0.23	-2.47
Org Commitment 16	-0.37	-3.99
Org Commitment 15	-0.30	-3.21
Org Commitment 14	-0.10	-1.05
Org Commitment 13	-0.57	-6.13
Org Commitment 12	-0.20	-2.16
Org Commitment 11	-0.52	-5.62
Org Commitment 10	-0.45	-4.81

Table 4 (Continued)

Org Commitment 9	-0.39	-4.16
Org Commitment 8	-0.52	-5.53
Org Commitment 7	-0.42	-4.54
Org Commitment 6	-0.40	-4.25
Org Commitment 5	-0.51	-5.44
Org Commitment 4	0.40	4.25
Org Commitment 3	-0.25	-2.69
Org Commitment 2	-0.57	-6.16
Org Commitment 1	-0.55	-5.91
JobSat 18	-2.31	-24.81
JobSat 17	-1.18	-12.62
JobSat 16	-2.75	-29.49
JobSat 15	-0.34	-3.66
JobSat 14	-1.83	-19.64
JobSat 13	-1.22	-13.12
JobSat 12	-2.23	-23.95
JobSat 11	-0.93	-9.93
JobSat 10	-0.02	-0.25
JobSat 9	-2.64	-28.31
JobSat 8	-2.42	-25.97
JobSat 7	-1.76	-18.89
JobSat 6	-1.82	-19.49
JobSat 5	-1.97	-21.11
JobSat 4	-2.27	-24.37
JobSat 3	-0.61	-6.50
JobSat 2	-2.23	-23.95
JobSat 1	-1.50	-16.09
Service Climate 1	-0.61	-6.56
Service Climate 2	-0.39	-4.19
Service Climate 3	-0.06	-0.68
Service Climate 4	-0.62	-6.68
Service Climate 5	-0.46	-4.96
Service Climate 6	-0.41	-4.38
Service Climate 7	-0.50	-5.32
Instrumental Climate 1	0.06	0.64
Instrumental Climate 2	0.25	2.69
Instrumental Climate 3	0.42	4.46
Instrumental Climate 4	0.40	4.31

Table 4 (Continued)

Instrumental Climate 5	0.07	0.76
Instrumental Climate 6	0.16	1.70
Instrumental Climate 7	-0.09	-0.91
Caring Climate 7	-0.74	-7.93
Caring Climate 6	-0.28	-3.04
Caring Climate 5	-1.15	-12.28
Caring Climate 4	-0.60	-6.44
Caring Climate 3	-0.23	-2.48
Caring Climate 1	-0.61	-6.52
Caring Climate 2	-0.54	-5.76

### Initial Measurement Model

A CFA was conducted to confirm the unidimensionality of all latent constructs and identify if any measurement issues exist from the available observed measures, in addition to reviewing model fit. Within structural equation modeling there are multiple indicators of model fit that test both goodness and badness of fit. While there is not one commonly accepted evaluation criteria, West, Taylor, and Wu (2012), suggest using a combination of the available metrics that fit the circumstances of the study. To evaluate the model fit of my measurement model, I focused specifically on the chi square test (likelihood ratio; if this is not significant, the null hypothesis is rejected indicating good model fit), chi square/df statistic (< 5 signals goodness of fit) suggested by Joreskog (1969), and the RMSEA statistic suggested by Steiger & Lind (1980; RMSEA >.06 indicates badness of fit). The initial measurement model can be found in Figure 3.

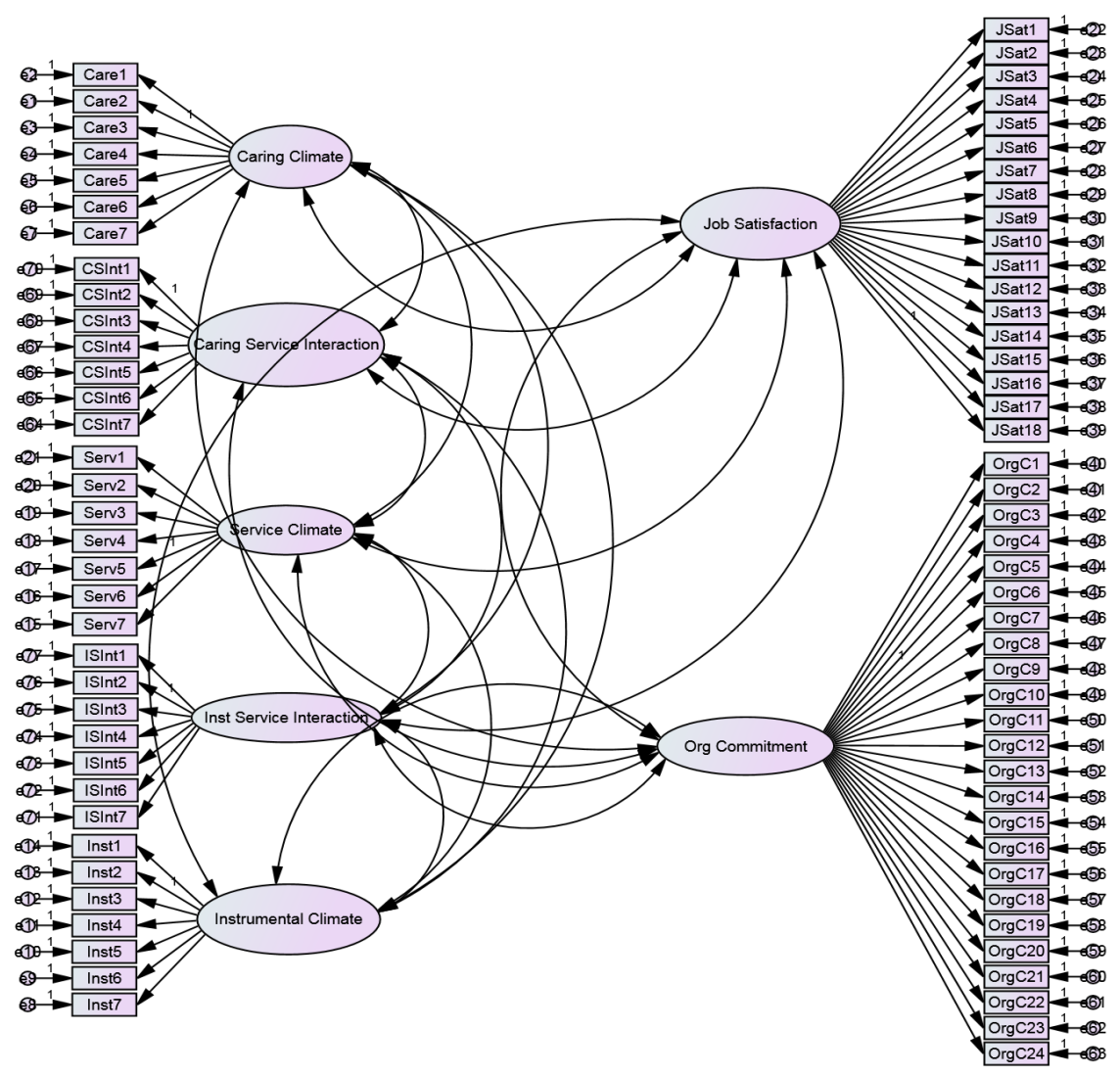


Figure 3 Initial Measurement Model

When model fit is good, no additional steps need to be taken to re-specify the measurement model. When model fit is poor, then additional steps (e.g., pruning of observed indicators of latent constructs, covarying of residuals) must be taken to address these issues prior to any ensuing latent path modeling as poor model fit can severely impact the viability of results (Hoyle, 2012). A review of the initial measurement model indicated poor model fit ( $CMIN = 11970.04$ ,  $df = 2828$ ,  $p > 0.001$ ;  $RMSEA = 0.07$ ; see Appendix B, Table B1 for a comparison of all relevant model statistics) and revealed unidimensionality concerns with organizational commitment where a subset of observed indicators were loading under what would be typically acceptable for inclusion ( $> .4$  loading to include). This is not surprising as the construct of organizational commitment actually taps into multiple facets of organizational commitment (Allen & Meyer, 1990)—Affective, Normative, and Continuance commitment. To narrow the scope of the theoretical model (and empirically improve the fit of the measurement model to the data), I focused specifically on affective commitment and excluded normative and continuance. I decided to use affective commitment as it theoretically embodies more of the emotional and value-based facets of organizational commitment in comparison to continuance climate (i.e., committed to a company because of necessity or external circumstances) and normative commitment (i.e., an individual's perceived obligation for remaining with the company; Meyer et al., 2002). A list of factor loadings and their latent constructs can be found in Table 5.

Table 5

*Factor Loadings for All Observed Measures and the Corresponding Latent Constructs*

Observed Measure	Latent Construct	Estimate	SE	CR	P
CaringClimate2	CaringClimate	1.00			
CaringClimate1	CaringClimate	0.96	0.03	36.42	***
CaringClimate3	CaringClimate	0.78	0.03	24.42	***
CaringClimate4	CaringClimate	0.83	0.03	28.52	***
CaringClimate5	CaringClimate	0.42	0.03	12.26	***
CaringClimate6	CaringClimate	0.64	0.04	16.55	***
CaringClimate7	CaringClimate	0.42	0.04	11.79	***
InstrumentalClimate7	InstrumentalClimate	0.58	0.05	12.27	***
InstrumentalClimate6	InstrumentalClimate	0.78	0.05	16.88	***
InstrumentalClimate5	InstrumentalClimate	0.67	0.05	14.93	***
InstrumentalClimate4	InstrumentalClimate	0.89	0.05	18.99	***
InstrumentalClimate3	InstrumentalClimate	0.71	0.04	16.06	***
InstrumentalClimate2	InstrumentalClimate	1.00	--	--	--
InstrumentalClimate1	InstrumentalClimate	0.91	0.04	20.60	***
ServiceClimate7	ServiceClimate	0.83	0.04	23.65	***
ServiceClimate6	ServiceClimate	0.96	0.04	27.45	***
ServiceClimate5	ServiceClimate	1.00	--	--	--
ServiceClimate4	ServiceClimate	0.75	0.03	24.70	***
ServiceClimate3	ServiceClimate	0.94	0.04	21.98	***
ServiceClimate2	ServiceClimate	0.85	0.04	23.85	***
ServiceClimate1	ServiceClimate	0.67	0.03	23.13	***
JobSat1	JobSat	0.98	0.04	23.29	***
JobSat2	JobSat	0.81	0.04	23.09	***
JobSat3	JobSat	0.94	0.05	17.89	***
JobSat4	JobSat	0.63	0.04	17.40	***
JobSat5	JobSat	0.90	0.04	24.20	***
JobSat6	JobSat	0.92	0.04	23.50	***
JobSat7	JobSat	0.84	0.04	20.89	***
JobSat8	JobSat	0.71	0.03	20.67	***
JobSat9	JobSat	0.57	0.03	16.90	***
JobSat10	JobSat	0.80	0.06	14.21	***
JobSat11	JobSat	0.96	0.05	19.42	***
JobSat12	JobSat	0.79	0.04	22.41	***
JobSat13	JobSat	0.91	0.05	19.71	***
JobSat14	JobSat	0.86	0.04	21.90	***

Table 5 (Continued)

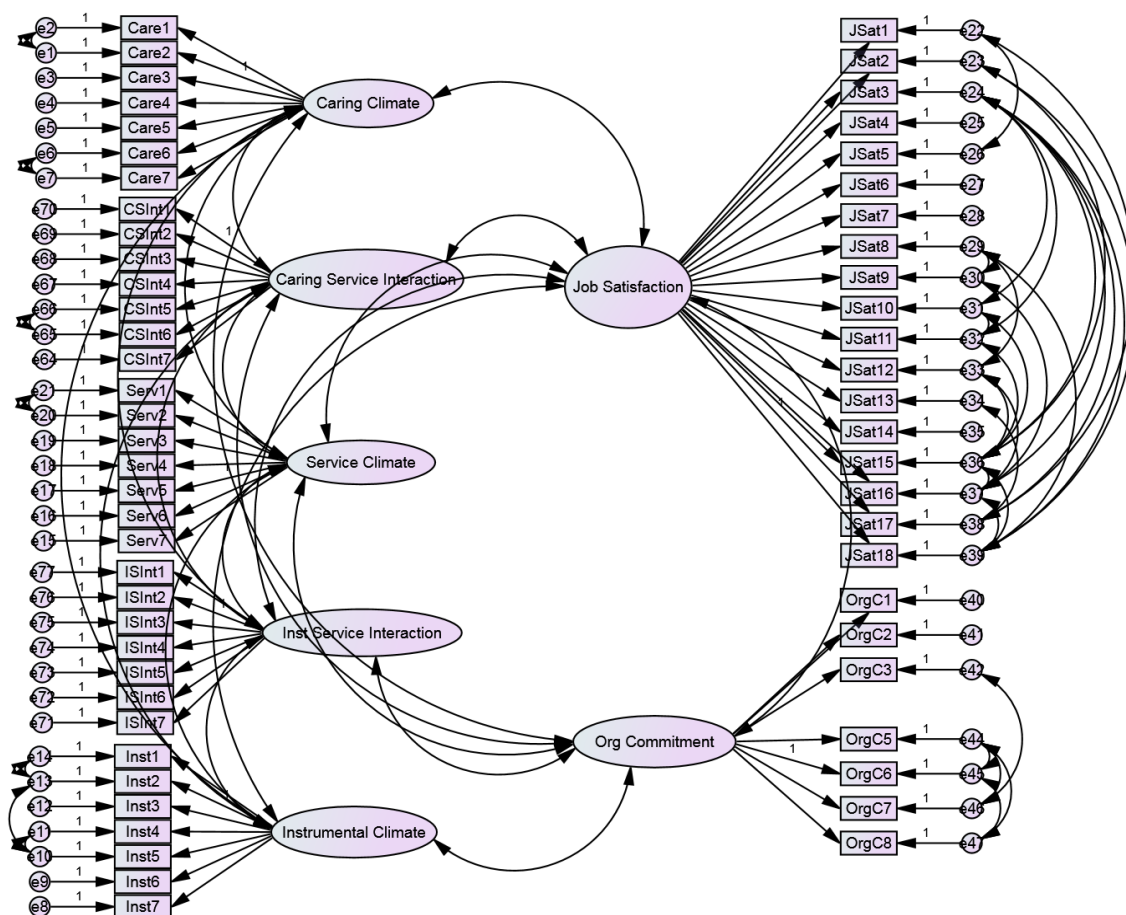
JobSat15	JobSat	0.94	0.05	17.24	***
JobSat16	JobSat	0.60	0.03	18.62	***
JobSat17	JobSat	1.00	--	--	--
JobSat18	JobSat	0.80	0.03	23.32	***
OrgCommit1	OrgCommitment	0.94	0.04	25.02	***
OrgCommit2	OrgCommitment	0.88	0.03	26.11	***
OrgCommit3	OrgCommitment	0.90	0.04	24.51	***
OrgCommit4	OrgCommitment	0.34	0.04	7.99	***
OrgCommit5	OrgCommitment	0.90	0.04	25.33	***
OrgCommit6	OrgCommitment	1.00	--	--	--
OrgCommit7	OrgCommitment	0.98	0.03	29.59	***
OrgCommit8	OrgCommitment	0.94	0.04	26.93	***
OrgCommit9	OrgCommitment	0.21	0.05	4.38	***
OrgCommit10	OrgCommitment	0.36	0.04	8.33	***
OrgCommit11	OrgCommitment	0.28	0.04	6.42	***
OrgCommit12	OrgCommitment	0.11	0.05	2.39	0.02
OrgCommit13	OrgCommitment	-0.01	0.04	-0.23	0.82
OrgCommit14	OrgCommitment	-0.19	0.05	-4.18	***
OrgCommit15	OrgCommitment	-0.24	0.05	-5.17	***
OrgCommit16	OrgCommitment	0.11	0.05	2.48	0.01
OrgCommit17	OrgCommitment	0.53	0.04	13.45	***
OrgCommit18	OrgCommitment	0.57	0.04	13.97	***
OrgCommit19	OrgCommitment	0.36	0.04	8.74	***
OrgCommit20	OrgCommitment	0.69	0.04	17.99	***
OrgCommit21	OrgCommitment	0.64	0.04	16.09	***
OrgCommit22	OrgCommitment	0.59	0.04	15.24	***
OrgCommit23	OrgCommitment	0.44	0.04	11.20	***
OrgCommit24	OrgCommitment	0.43	0.04	12.02	***
CaringxServ1	CaringServInteraction	0.50	0.04	11.55	***
CaringxServ2	CaringServInteraction	0.63	0.05	12.01	***
CaringxServ3	CaringServInteraction	0.60	0.05	13.38	***
CaringxServ4	CaringServInteraction	0.82	0.04	19.60	***
CaringxServ5	CaringServInteraction	0.90	0.04	20.78	***
CaringxServ6	CaringServInteraction	0.96	0.04	23.59	***
CaringxServ7	CaringServInteraction	1.00	--	--	--
InstxServ1	InstrumentalServInteraction	0.50	0.06	8.81	***
InstxServ2	InstrumentalServInteraction	0.59	0.06	10.48	***
InstxServ3	InstrumentalServInteraction	0.49	0.06	8.61	***

Table 5 (Continued)

InstxServ4	InstrumentalServInteraction	0.58	0.05	10.94	***
InstxServ5	InstrumentalServInteraction	0.97	0.06	16.07	***
InstxServ6	InstrumentalServInteraction	1.00	--	--	--
InstxServ7	InstrumentalServInteraction	0.86	0.06	14.08	***

Once the measurement model was sufficiently reduced, a second CFA was conducted to re-evaluate the measurement model. The first revised measurement model demonstrated better model fit (see Appendix B, Table B1), but was still not meeting the criteria for a sufficient/good-fitting model (CMIN = 6567.22,  $df = 1689$ ,  $p > 0.001$ ; RMSEA = 0.07). To further improve the fit of the model to the data, I then turned my attention towards the modification indices provided by AMOS 21—this list provides empirically driven recommendations of covariances between observed residuals. These covaried error terms can be defined in the measurement model to help improve model fit; however, they need to be approached with caution to avoid overfitting the model to the data and missing generalizability of results (Hoyle, 2012). Covariances between residuals were defined where the modification indices were large (i.e., would have resulted in substantial improvements to model fit), however, not all modification recommendations were taken to prevent from overfitting our model as these modifications are typically empirically driven (Mueller & Hancock, 2008). I also constrained only pairs of residuals within the same scale (e.g., an observed indicator from job satisfaction could not be covaried with one from organizational commitment). The reduction of observed indicators and covarying of residuals resulted in a final, revised model (found in Figure 4).





**Figure 4** Final Measurement Model

### Final Measurement Model

The CFA was run a final time on the final measurement model, to evaluate model fit. The model fit results indicated that  $CMIN = 4373.71$ ,  $df = 1654$ ,  $p > 0.001$ ;  $RMSEA = 0.05$ . While the significance level for the chi-square (CMIN) test was significant suggesting possible misfit, this statistic is known for being particularly sensitive to large sample sizes (West, Taylor, and Wu, 2012), the  $CMIN/df$  and  $RMSEA$  fit statistics met the criteria for good model fit. Considering that there were no changes for significance for the chi-square goodness of fit test, I attribute this to the large sample sizes of my study and acknowledge this as a potential limitation of this research.

### **Assessment of Construct Validity**

Prior to conducting any latent path modeling, the latent constructs of the final measurement model should be evaluated to understand construct validity. This is done to confirm that the observed indicators are sufficiently related to the latent construct they should be measuring (convergent validity) and that the latent constructs themselves sufficiently diverge from each other (discriminant validity). Guidance from Hair, Ringle, and Sarstedt (2011) indicate that convergent validity is satisfied when the average variance extracted (AVE) is greater than 0.5, standardized factor loadings of all items exceed 0.5, and composite reliability (CR) of the construct is  $>0.7$ . The final revised model met some of the composite reliability criteria (all latent constructs and latent interactions exceeded 0.7), but failed to meet the criteria for AVE, specifically for instrumental and caring climate constructs and their respective latent interactions with service climate. It is not surprising that the latent interactions resulted in less than adequate AVE given that these constructs are the product of two existing constructs; however, it is concerning that the ethical climate constructs exhibit poorer than expected AVE. A review of the factor loadings did not suggest any items that could be dropped from the scale to improve construct validity (no factor loadings below 0.4), therefore I acknowledge the failure to meet convergent validity as a limitation of my study (more on this in the limitations section).

Kline (2011) suggests that discriminant validity is satisfied when no two constructs in a measurement model exceed a correlation coefficient of 0.85. This criterion was satisfied (see Table 6), indicating that the final measurement model did indeed have discriminant validity.

Table 6

*Construct Validity Statistics and Intercorrelations for the Final Measurement Model with Square Root of AVE on Diagonal*

	CR	AVE	MSV	MaxR(H)	1	2	3	4	5	6	7
1. Car x Serv Interaction	0.83	0.43	0.37	0.88	(0.66)	--	--	--	--	--	--
2. Caring Climate	0.82	0.45	0.65	0.87	-0.33	(0.67)	--	--	--	--	--
3. Instrumental Climate	0.84	0.43	0.16	0.85	0.27	-0.40	(0.66)	--	--	--	--
4. Service Climate	0.91	0.60	0.65	0.92	-0.32	0.81	-0.38	(0.78)	--	--	--
5. Job Satisfaction	0.95	0.53	0.51	0.96	-0.47	0.64	-0.40	0.62	(0.73)	--	--
6. Org Commitment	0.93	0.65	0.63	0.93	-0.23	0.79	-0.40	0.75	0.72	(0.80)	--
7. Inst x Serv Interaction	0.74	0.30	0.37	0.78	-0.61	0.27	0.15	0.30	0.32	0.18	(0.55)

\*CR = Composite Reliability, AVE = Average Variance Extracted, MSV = Maximum Shared Variance

### **Latent Path Model**

My hypothesized path model can be found in Figure 5. All exogenous latent constructs (service climate, caring climate, instrumental climate, service & instrumental interaction, and caring & service interaction) were covaried and paths drawn to the respective endogenous latent constructs (job satisfaction and organizational commitment). Disturbance terms were also defined for job satisfaction and organizational commitment to account for any error tied to the regression path in the ensuing path analysis. The latent path model was analyzed using maximum likelihood estimation with bootstrapping ( $B = 500$ ; CF for bias correction = 0.95) to evaluate for overall model fit and provide corrected standardized regression estimates to test my original hypotheses. The model fit results indicated that  $CMIN = 4467.02$ ,  $df = 1655$ ,  $p > 0.001$ ;  $RMSEA = 0.05$ —these results suggest a good model fit consistent with our final measurement model. A full comparison of fit statistics for each model can be found in Appendix B, Table B1.

### **Results**

Because of the violation of the multivariate normality assumption, all regression estimates yielded by the structural equation model were adjusted via bootstrapping of standard errors. Both the uncorrected and corrected unstandardized and standardized regression weights are reported in Table 7, but only the standardized regression weights were used to evaluate my original hypotheses pertaining to the competing values framework. The coefficients reported in the results are standardized Betas that have been corrected for bias.

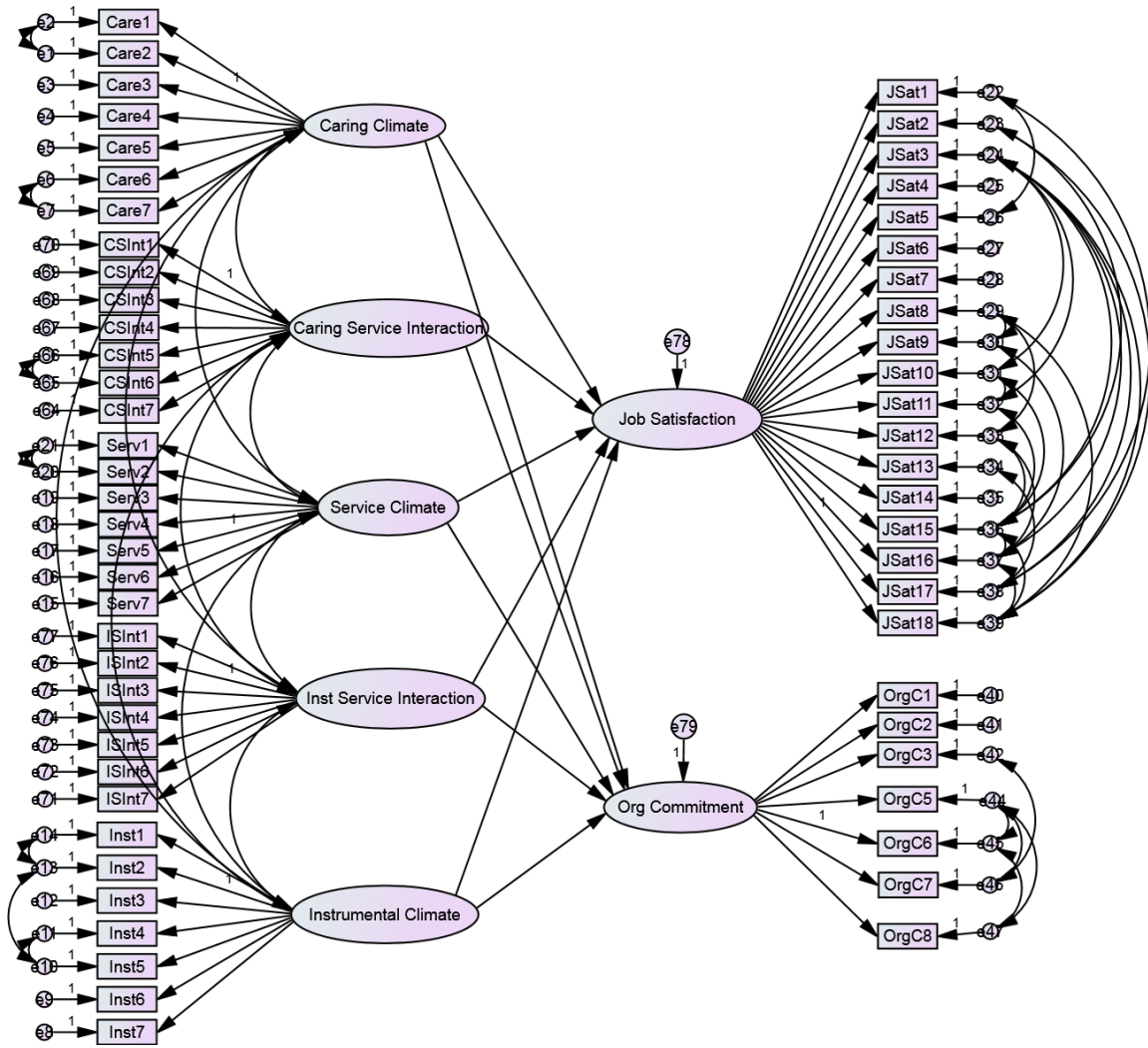


Figure 5 Latent Path Model

Table 7

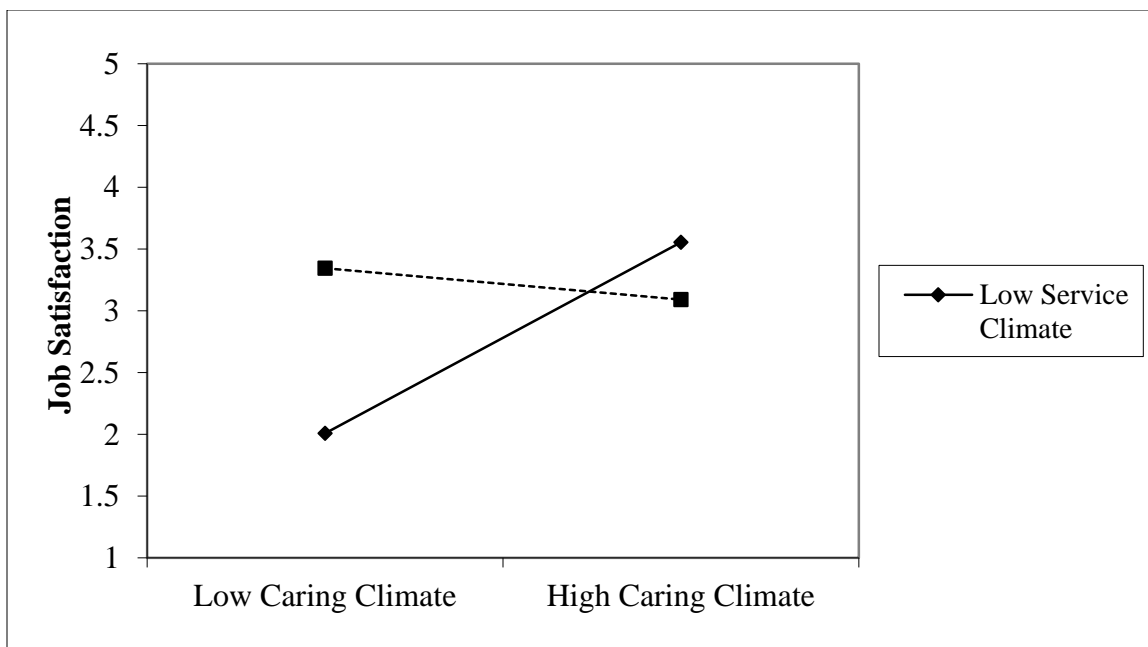
*Unstandardized and Standardized Regression Estimates for the Latent Path Model*

Exogenous (IV)	Endogenous (DV)	Original Estimates				Bias Corrected Estimates (.95% Confidence, $B = 500$ )					
		B	$\beta$	SE	sig	B	B-SE	B-sig	$\beta$	$\beta$ -SE	$\beta$ -sig
CaringClimate	JobSat	0.33	0.38	0.05	<.001	0.33	0.10	<.01	0.38	0.11	<.01
CaringClimate	OrgCommitment	0.78	0.58	0.08	<.001	0.78	0.13	<.01	0.58	0.09	<.01
InstrumentalClimate	JobSat	-0.11	-0.13	0.04	<.01	-0.11	0.12	ns	-0.13	0.14	ns
InstrumentalClimate	OrgCommitment	-0.12	-0.09	0.06	<.05	-0.12	0.17	ns	-0.09	0.12	ns
ServiceClimate	JobSat	0.18	0.19	0.06	<.01	0.18	0.10	ns	0.19	0.10	ns
ServiceClimate	OrgCommitment	0.43	0.27	0.09	<.001	0.43	0.14	<.01	0.27	0.09	<.01
CaringServInteraction	JobSat	-0.23	-0.23	0.05	<.001	-0.23	0.22	<.05	-0.23	0.20	<.05
CaringServInteraction	OrgCommitment	0.11	0.07	0.07	ns	0.11	0.28	ns	0.07	0.17	ns
InstrumentalServInteraction	JobSat	0.05	0.04	0.06	ns	0.05	0.28	ns	0.04	0.22	ns
InstrumentalServInteraction	OrgCommitment	0.00	0.00	0.09	ns	0.00	0.38	ns	0.00	0.18	ns

Hypotheses 1 through 3 review direct relationships between the latent constructs of exogenous to endogenous constructs. Caring climate significantly predicted job satisfaction ( $\beta = 0.38$ ,  $SE = 0.11$ ,  $p < 0.01$ ) and organizational commitment ( $\beta = 0.58$ ,  $SE = 0.09$ ,  $p < 0.01$ ) indicating support for hypotheses 1a and 1b. Instrumental climate did not significantly predict job satisfaction ( $\beta = -0.13$ ,  $SE = 0.14$ ,  $p > 0.05$ ), or organizational commitment ( $\beta = -0.09$ ,  $SE = 0.12$ ,  $p < 0.01$ ) indicating a failure to support hypotheses 2a and 2b. Service climate did not significantly predict job satisfaction ( $\beta = 0.19$ ,  $SE = 0.10$ ,  $p > 0.05$ ), but did significantly predict organizational commitment ( $\beta = 0.27$ ,  $SE = 0.09$ ,  $p < 0.01$ ) indicating support for hypothesis 3b, but not 3a.

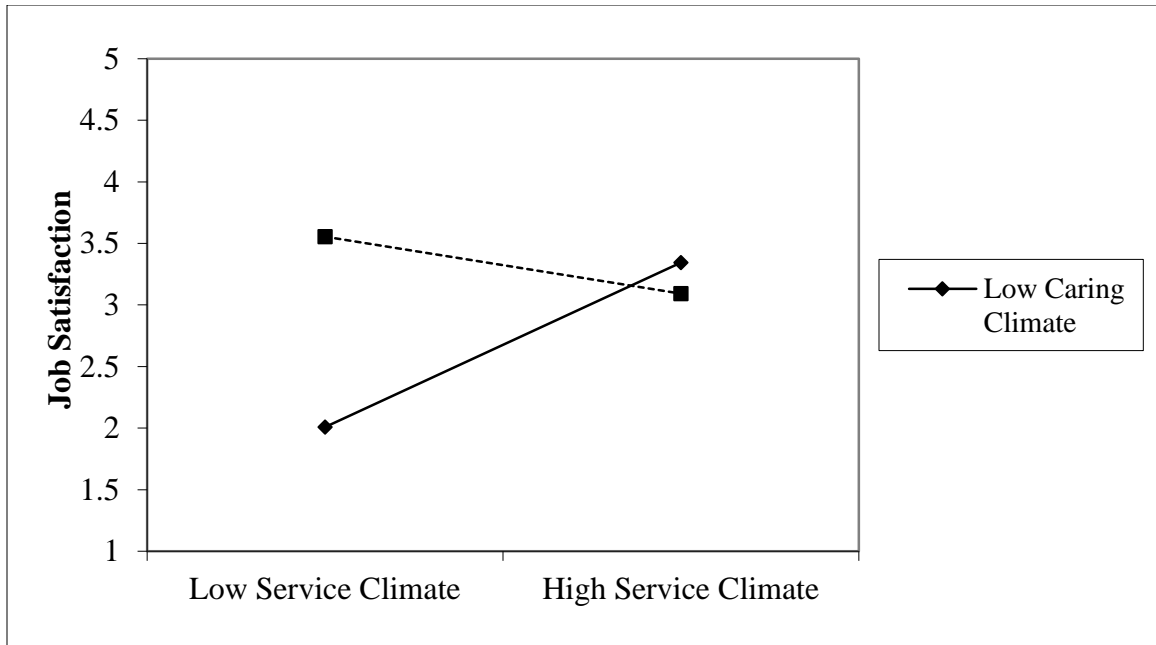
Hypotheses 4 through 7 are reflective of anticipated moderation effects between each latent climate interaction, and the combined impact on the appropriate exogenous construct. To characterize the interaction effects, significant relationships were plotted to understand the conditions of moderation (see Figures 6 and 7)—in the event that significant moderation was found, we would expect the plots to show strengthening (visually represented by a steeper slope) or attenuation effects (visually represented by a flatter slope) instead of cross interactions. The service and caring climate interaction did not significantly predict job satisfaction ( $\beta = -0.23$ ,  $SE = 0.20$ ,  $p < 0.05$ ), however, it did not significantly predict organizational commitment ( $\beta = 0.07$ ,  $SE = 0.17$ ,  $p < 0.01$ ). Plotting the interaction effect to understand the moderating effect of service indicated that service climate did not strengthen the positive relationship between caring climate and job satisfaction, failing to find support for hypotheses 4a and 4b. Plotting the interaction effect to understand the moderating effect of caring on the service climate and job satisfaction relationship indicated that caring climate did not strengthen the positive

relationship between service climate and job satisfaction, failing to find support for hypothesis 5a. Because the service and caring latent interaction did not predict organizational commitment, there was no support found for hypothesis 5b. The instrumental and service climate interaction did not significantly predict job satisfaction ( $\beta = 0.04$ ,  $SE = 0.22$ ,  $p > 0.05$ ) or organizational commitment ( $\beta = 0.00$ ,  $SE = 0.18$ ,  $p < 0.05$ ), failing to find support for hypotheses 6a, 6b, 7a, and 7b. Plots for Hypothesis 4a and 5a can be found in Figures 6 and 7, respectively.



**Figure 6** Hypothesis 4a Moderation Plot





**Figure 7** Hypothesis 5a Moderation Plot

## **CHAPTER 4**

### **DISCUSSION AND LIMITATIONS**

#### **Discussion**

A review of the empirical results indicates little to no support for the latent path model as a good representation of a competing climates framework; however, my study did shed further light on the direct relationships between ethical and service climate and job attitudes, specifically for caring climates. The positive relationship found between caring climates and job satisfaction (hypothesis 1a) and organizational commitment (hypothesis 1b) is similar to the concept of perceived organizational support and lends further credence to the notion that employers who create a positive environment for their employees will in turn have more satisfied employees who are more committed to the values of the larger organization. This is important for two reasons: a) as companies continue to grow, a heavy emphasis on scaling not only the quantity of human resources, but the quality of those human resources will be extremely valuable, and b) the evolution of work and strong growth in the “gig economy” will result in providing employees more options to pick and choose where they work at and may result in employee turnover (Kuhn, 2016).

A significant negative relationship was not found between instrumental climate and job satisfaction (Hypothesis 2a) nor organizational commitment (Hypothesis 2b). The

results for 2a are surprising, as previous studies (Desphande, 1996; Huang et al., 2012; Ulrich et al., 2007) have found empirical support for the hypothesized negative relationship between instrumental climate and job satisfaction that was posited. Given the breadth of support from the literature, I suspect that this relationship was not significant due to a lack of adequate variability in my job-satisfaction measure. The negative skew typically inflates the Type 1 error associated with hypotheses including job satisfaction as the exogenous variable (or dependent variable). Under conditions where the sample is naturally normally distributed, I would expect to find support for this hypothesis, and while normality was addressed via bootstrapping the standard errors, it is important to note that any post-hoc measures taken to address the violation of normality will simulate corrections, but will still be susceptible to error.

The hypothesized negative relationship between instrumental climate and organizational commitment was also not significant. Instrumental climates are fundamentally different from caring climates in that employees who experience and instrumental climate consider organizational decisions and pursuits to be in the best interest of the company (e.g., growth, revenue) rather than the individual (Victor & Cullen, 1988). Empirical evidence offers theoretical support for this hypothesis as instrumental climate has been found to be negatively related to employee-level attitudes such as general and facet-level job satisfaction (Deshpande, 1996; Cullen, 2006). Existing empirical evidence suggests that there may be something wrong with my sample, method, or design, despite the lack of research between instrumental climate and organizational commitment. While this specific hypothesis was generally exploratory in

nature, I would encourage future researchers to continue to study this relationship as the mechanisms for this relationship are theoretically intuitive.

The significant positive relationship found between service climate and organizational commitment is consistent with previous empirical evidence (Lenka et al., 2010). I suspect this is likely due to an alignment of values between the employee and the organization. When a strong service climate exists, there is a powerful directive from the organization to ensure that their customers are not only satisfied, but happy with their services or products. Employees likely see their organization emphasizing the value of their customers and in turn develop positive perceptions of their organization. This positive perception likely results in improved commitment to the organization.

It is also surprising that a positive relationship between service climate and job satisfaction was not found to be statistically significant given that previous researchers have found support for this relationship (Ostroff et al., 2002). One explanation for failing to find support in this study could be measurement challenges with the job satisfaction scale. This specific scale signaled issues with normality that likely inflated the Type 2 error associated with testing this relationship. While this was accounted for in our model analysis through bootstrapping, under more amenable conditions, it is likely that this relationship would have been found to be significant.

Hypotheses 4-7 were focused primarily on moderation and whether the characterization of those moderation effects were consistent with the competing values framework. Unfortunately, given the circumstances of my data and existing model, I was unable to find support for any of the hypotheses from 4-7. While the current study does not provide evidence to support the competing values framework's application it the

climate domain, it does not rule out its application. The two focused climates examined—ethical climate and service climate— represent specific, focused climates that vary considerably from job to job. For example, a mechanical engineer is very unlikely to experience any service climate whereas the same construct would be incredibly important to someone working in customer service. The framework may be more applicable for more generic climates or common components of general organizational climate (e.g., perceptions of management, coworkers) that are more salient for all employees rather than just limited to a specific function or industry.

Finally, the evidence outlined in the introduction section of this dissertation can serve as an initial starting point for future researchers to dig deeper into the notion of competing climates, and while this dissertation and Paul's (2012) study did not find support for a theoretical framework of competing climates, further studies with consistent conclusions and evidence will be necessary for solidifying the field's understanding of whether climates do in fact compete. I would recommend that future researchers pursue a similar design using structural equation modeling as it provides statistical benefits beyond first-generation multivariate statistics (e.g., linear regression, ANOVA) such as accounting for observed error, allowing covariances between latent constructs, and allowing a more thorough and robust analysis of a theoretical framework.

### **Limitations**

A review of the challenges throughout this dissertation highlighted a set of limitations that could have impacted the results and ultimately contributed to failure to find support for the competing climates theoretical framework. These limitations offer insight into the mechanisms behind this dissertation and are meant to provide insight and

perspective for future researchers conducting similar studies. The review of limitations cover model fit, study design, sample characteristics, and construct validity.

While the final measurement model and latent path models satisfied some of the criteria for goodness-of-fit, there were other fit statistics that demonstrated poor model fit. This issue is common for studies that utilize structural equation modeling and there is a growing concern that many structural equation modeling-driven studies result in inflated Type 1 or 2 error due to a misunderstanding or misapplication of the structural equation modeling (Hoyle, 2012). While the process followed in this dissertation modeled best practices outlined by previous structural equation modeling experts, there are many decision points throughout the process that require subjective decision making on behalf of the principal researcher (e.g., which goodness-of-fit statistics to use). The lack of consistency can result in distorted results due to inflation of Type 1 and Type 2 error and is an element that I consider a limitation of any structural equation modeling-driven study, this dissertation included.

The lack of findings for both some direct relationships and all moderation hypotheses could have resulted from a number of issues, but potentially signals the need for a more robust study design and theoretical framework. In retrospect, focused climates may have not been the best constructs of interest given that they can be somewhat correlated with very specific job functions (e.g., service climate and service-oriented jobs). In a similar vein, the job attitudes selected were not strong consequences of these focused climates, and including outcomes that would have had more empirical support or were more aligned with the predictor constructs could have improved overall model fit and the likelihood of identifying a successful competing climates framework.

While MTurk samples have been found to be effective for empirical research (Castler et al., 2013), it is possible that some of the nuances of screening/soliciting my dissertation sample could have played a role in finding inconclusive results. The requirements for inclusion (age, work experience, etc.) were set arbitrarily to ensure a sample of professionals were reviewed for this study. Had I paid special attention to capturing specific company/work experience data, I would have been able to control for current organizational tenure, to help remove some of the noise from the current data. With the way work experience is currently captured, I am unable to determine how much of a participant's work experience was spent at the current role they were surveyed on. I recommend that future research examine whether there are demographic differences (ethnicity, gender, age) in some of these findings. Given the limited sample sizes captured in my dissertation and lack of specific/targeted data on current organization tenure, I acknowledge this as a limitation of the current study.

I also acknowledge challenges with measurement (specifically construct validity) as a limitation of this dissertation. The latent constructs for caring and instrumental climate did not have adequate convergent validity, indicating that there may have been issues with the observed measures forming the latent constructs. A review of the factor loadings indicated that all items had adequate loading for inclusion ( $>0.40$ ). While further reduction of the ethical climate dimensions could have satisfied this requirement from an empirical perspective, it would come at the cost of comprehensiveness of the latent caring- or instrumental-climate constructs. Given that there was a large body of evidence behind operationalizing the ethical climate constructs (Peterson, 2002; Elci & Alpan, 2009; Huang et al., 2012), and the lack of a clear signal from the empirical

results in my study (i.e., construct validity was a problem; however, factor loadings and the intercorrelation matrix between observed measures didn't throw up clear signals on which items to remove), I opted to leave these observed measures in rather than remove them on the basis of empirical indicators.

### **Future Research**

As indicated earlier, the notion that climates compete is in its infancy with this dissertation representing the third of such studies in the last seven years. While the results of this study did not find support of the competing values framework, the information outlined in this study provides additional evidence for future scientists to more effectively study how climates compete. One of the largest challenges in doing so will be defining under what conditions distinct climates will compete and how to establish their distinctness from each other. I attempted to do this by using the competing values framework to highlight the conceptual differences between service and ethical climate; however, the results did not support my original conceptualization. As the climate domain continues to grow, future researchers should examine focused climates and sub-climates of larger, molar climates (such as general organizational climate; Schneider, 1975) to determine whether the competing values framework (or any other theoretical model) is applicable to the entire climate domain or whether only specific combinations of climate are appropriate to review in the context of competition.

Another area of research that was not within the scope of this dissertation but is inherent to the topic of organizational climate is level of analysis (Glick, 1985; Ashforth 1985). This study reviewed specific climates through individual perceptions of climate (i.e., psychological climate). Future studies could extend the literature by leveraging



multi-level modeling or multi-level latent path modeling. This would add a unique dimension by cutting across multiple levels and understanding how aggregate group or organizational climates impact individual-level attitudes.

Finally, examining how climates compete across different samples will add to the growing body of evidence within the competing climates domain. Since this area of research is new, there is little empirical evidence around how climates compete in different industries, teams, and jobs. Special attention will need to be paid to identifying the climate indicators that are aligned with a specific job or company—for example, safety climate would be aligned with industrial workers where safety challenges can result in negative physical consequences (Zohar, 1980).

As indicated earlier, competing climates must be theoretically distinct in their focus. I theorized ethical and service climate to be on the opposite ends of the competing values framework—ethical climate was characterized by a focus on internal employees and maintaining control over employee ethical standards, whereas service climate leaned more towards an external referent of customers and was characterized by allowing employees to be flexible to meet customer needs. This was consistent with other researchers who looked into competing climates (Paul, 2012; MacCormick & Parker, 2012) in the context of the competing values framework.

However, in retrospect, perhaps ethical climate and service climate do not represent opposite ends of the spectrum, but are conceptually similar enough to render this study's results inconclusive. Given that evidence is still limited (the only studies to evaluate the competing values framework in the climate domain are the current study, MacCormick & Parker, 2012 and Paul, 2012) and offers mixed support for the competing

values framework, I would be reluctant to say there is a clear disconnect between the competing values framework and the study of organizational climate. Further research should be conducted similarly highlighting different types of distinct, focused climates to understand why Paul (2012) and my study rendered inconclusive results while MacCormick & Parker (2012) found support for the competing values framework. This will provide further direction for future researchers to either a) continue to posit and define a theoretical framework or b) provide additional evidence for researchers to move away from this topic all together—either or, more research is needed beyond the scope of this dissertation.

### **Conclusion**

This dissertation was written to propose and test a theoretical framework for understanding climate competition and the influence of context on an employee's work-related attitudes. I began with a review of the climate literature, arguing for ethical and service climate as two optimal, climates for studying multiple competing climates. I then proposed a competing climates theoretical framework that adopts Quinn and Rohrbaugh's (1981) competing values framework (CVF) to explain how different aspects of each climate compete in a way that is salient to employees. To test the viability of this theory, I solicited professionals from Amazon Mechanical Turk (MTurk) and asked them to complete a questionnaire including measures of ethical climate, service climate, job satisfaction, and organizational commitment. I then used a structural equation modeling (CFA and Latent Path Moderation) to test hypothesized relationships between each climate and each job attitude (Hypotheses 1-3), as well as the proposed interaction hypotheses where climates may compete to impact employee job attitudes.

The results of this study found partial support for direct relationships between a single measure of climate and job attitudes, and inconclusive support for my moderation hypotheses and model fit for the proposed theoretical model. A review of existing literature, the current data, and conditions of this study suggest that methodological and measurement issues inherent could be inflating Type 2 error and ultimately impacting my ability to find statistically significant conclusions. While these issues were somewhat mitigated using recommended empirical approaches (e.g., bootstrapping to address normality, pruning of items to improve model fit), further research is recommended to confirm the results and continue to explore support for a theoretical framework of competing competition.

## REFERENCES

- Agarwal, J., & Malloy, D. C. (1999). Ethical work climate dimensions in a not-for-profit organization: An empirical study. *Journal of business ethics*, 20(1), 1-14.
- Albarracín, D., Johnson, B. T., Zanna, M. P., & Kumkale, G. T. (2005). Attitudes: Introduction and scope. *The handbook of attitudes*, 3-19.
- Ajzen, I. (2001). Nature and operation of attitudes. *Annual review of psychology*, 52(1), 27-58
- Albrecht, K., & Zemke, R. (1985). *Service America!*. Dow Jones-Irwin.
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of occupational psychology*, 63(1), 1-18.
- Appelbaum, S. H., Deguire, K. J., & Lay, M. (2005). The relationship of ethical climate to deviant workplace behaviour. *Corporate Governance: The international journal of business in society*, 5(4), 43-55.
- Aquino, K., & Becker, T. E. (2005). Lying in negotiations: How individual and situational factors influence the use of neutralization strategies. *Journal of organizational behavior*, 26(6), 661-679.
- Armstrong, A., Kusuma, H., & Sweeney, M. (1999). The Relationship between Ethical Climates and the Quality of Working Life. In *Australian institute of computer ethics conference (Lilidale)*.

- Ashforth, B. E. (1985). Climate formation: Issues and extensions. *Academy of management review*, 10(4), 837-847.
- Balzer, W. K., Smith, P. C., & Kravitz, D. A. (1990). *User's manual for the job descriptive index (JDI) and the job in general (JIG) scales*. Department of Psychology, Bowling Green State University.
- Belasen, A., & Frank, N. (2008). Competing values leadership: Quadrant roles and personality traits. *Leadership & organization development journal*, 29(2), 127-143.
- Blau, P. M. (1964). *Exchange and power in social life*. Transaction Publishers.
- Bock, G. W., Zmud, R. W., Kim, Y. G., & Lee, J. N. (2005). Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. *MIS quarterly*, 87-111.
- Borucki, C. C., & Burke, M. J. (1999). An examination of service-related antecedents to retail store performance. *Journal of organizational behavior*, 20(6), 943-962.
- Bourne, S., & Snead, J. D. (1999). Environmental determinants of organizational ethical climate: a community perspective. *Journal of business ethics*, 21(4), 283-290.
- Bowen, D. E., & Ostroff, C. (2004). Understanding HRM–firm performance linkages: The role of the “strength” of the HRM system. *Academy of management review*, 29(2), 203-221.
- Bowen, D. E., & Schneider, B. (2014). A service climate synthesis and future research agenda. *Journal of service research*, 17(1), 5-22.
- Brayfield, A. H., & Rothe, H. F. (1951). An index of job satisfaction. *Journal of applied psychology*, 35(5), 307.

- Breckler, S. J. (1984). Empirical validation of affect, behavior, and cognition as distinct components of attitude. *Journal of personality and social psychology*, 47(6), 1191.
- Brower, H. H., & Shrader, C. B. (2000). Moral reasoning and ethical climate: Not-for-profit vs. for-profit boards of directors. *Journal of business ethics*, 26(2), 147-167.
- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk a new source of inexpensive, yet high-quality, data?. *Perspectives on psychological science*, 6(1), 3-5.
- Cameron, K. S., & Quinn, R. E. (2005). *Diagnosing and changing organizational culture: Based on the competing values framework*. John Wiley & Sons.
- Cameron, K. S., Quinn, R. E., DeGraff, J., & Thakor, A. V. (2014). *Competing values leadership*. Edward Elgar Publishing.
- Carr, J. Z., Schmidt, A. M., Ford, J. K., & DeShon, R. P. (2003). Climate perceptions matter: a meta-analytic path analysis relating molar climate, cognitive and affective states, and individual level work outcomes. *Journal of applied psychology*, 88(4), 605.
- Casler, K., Bickel, L., & Hackett, E. (2013). Separate but equal? A comparison of participants and data gathered via Amazon's MTurk, social media, and face-to-face behavioral testing. *Computers in human behavior*, 29(6), 2156-2160.
- Clarke, S. (2010). An integrative model of safety climate: Linking psychological climate and work attitudes to individual safety outcomes using meta-analysis. *Journal of occupational and organizational psychology*, 83(3), 553-578.

- Combs, J., Liu, Y., Hall, A., & Ketchen, D. (2006). How much do high-performance work practices matter? A meta-analysis of their effects on organizational performance. *Personnel psychology, 59*(3), 501-528.
- Cullen, J. B., Parboteeah, K. P., & Hoegl, M. (2004). Cross-national differences in managers' willingness to justify ethically suspect behaviors: A test of institutional anomie theory. *Academy of management journal, 47*(3), 411-421.
- Cullen, J. B., Parboteeah, K. P., & Victor, B. (2003). The effects of ethical climates on organizational commitment: A two-study analysis. *Journal of business ethics, 46*(2), 127-141.
- Cullen, J. B., Victor, B., & Stephens, C. (1989). An ethical weather report: Assessing the organization's ethical climate. *Organizational dynamics, 18*(2), 50-62.
- Demirtas, O., & Akdogan, A. A. (2015). The effect of ethical leadership behavior on ethical climate, turnover intention, and affective commitment. *Journal of business ethics, 130*(1), 59-67.
- Denison, D. R., & Spreitzer, G. M. (1991). Organizational culture and organizational development: A competing values approach. *Research in organizational change and development, 5*(1), 1-21.
- Deshpande, S. P. (1996). The impact of ethical climate types on facets of job satisfaction: An empirical investigation. *Journal of business ethics, 15*(6), 655-660.
- DiMaggio, P., & Powell, W. W. (1983). The iron cage revisited: Collective rationality and institutional isomorphism in organizational fields. *American sociological review, 48*(2), 147-160.

- Dixon, D., Ford, R., Steinke, C. (2008). Examining the role of service climate in health care: An empirical study of emergency departments. *International journal of service industry management*, 19(2), 188-209.
- Dollard, M. F., & Bakker, A. B. (2010). Psychosocial safety climate as a precursor to conducive work environments, psychological health problems, and employee engagement. *Journal of occupational and organizational psychology*, 83(3), 579-599.
- Eisenberger, R., Fasolo, P., & Davis-LaMastro, V. (1990). Perceived organizational support and employee diligence, commitment, and innovation. *Journal of applied psychology*, 75(1), 51.
- Elçi, M., & Alpkan, L. (2009). The impact of perceived organizational ethical climate on work satisfaction. *Journal of business ethics*, 84(3), 297-311.
- English, B., Morrison, D., & Chalon, C. (2010). Moderator effects of organizational tenure on the relationship between psychological climate and affective commitment. *Journal of management development*, 29(4), 394-408.
- Ferris, G. R. (1985). Role of leadership in the employee withdrawal process: A constructive replication. *Journal of applied psychology*, 70(4), 777.
- Fritzsche, D. J., & Becker, H. (1984). Linking management behavior to ethical philosophy—An empirical investigation. *Academy of management journal*, 27(1), 166-175.
- Fu, W., & Deshpande, S. P. (2014). The impact of caring climate, job satisfaction, and organizational commitment on job performance of employees in a China's insurance company. *Journal of business ethics*, 124(2), 339-349.



- Gils, S., Hogg, M. A., Quaquebeke, N., & Knippenberg, D. (2015). When Organizational Identification Elicits Moral Decision-Making: A Matter of the Right Climate. *Journal of business ethics*, 1-14.
- Glick, W. H. (1985). Conceptualizing and measuring organizational and psychological climate: Pitfalls in multilevel research. *Academy of management review*, 10(3), 601-616.
- Goodman, E. A., Zammuto, R. F., & Gifford, B. D. (2001). The competing values framework: Understanding the impact of organizational culture on the quality of work life. *Organization development journal*, 19(3), 58.
- Gouldner, A. W. (1957). Cosmopolitans and locals: toward an analysis of latent social roles. I. *Administrative science quarterly*, 281-306.
- Gouldner, A. W. (1959). *Organizational analysis*.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American sociological review*, 161-178.
- Guion, R. M. (1973). A note on organizational climate. *Organizational behavior and human performance*, 9(1), 120-125.
- Hackett, R. D., Bycio, P., & Hausdorf, P. A. (1994). Further assessments of Meyer and Allen's (1991) three-component model of organizational commitment. *Journal of applied psychology*, 79(1), 15-23.
- Hartnell, C. A., Ou, A. Y., & Kinicki, A. (2011). Organizational culture and organizational effectiveness: a meta-analytic investigation of the competing values framework's theoretical suppositions. *Journal of applied psychology*, 96(4), 677.

- Hong, Y., Liao, H., Hu, J., & Jiang, K. (2013). Missing link in the service profit chain: A meta-analytic review of the antecedents, consequences, and moderators of service climate. *Journal of applied psychology, 98*(2), 237.
- Hooijberg, R., & Petrock, F. (1993). On cultural change: Using the competing values framework to help leaders execute a transformational strategy. *Human resource management, 32*(1), 29-50.
- Howard, L. W. (1998). Validating the competing values model as a representation of organizational cultures. *The international journal of organizational analysis, 6*(3), 231-250.
- Huang, C. C., You, C. S., & Tsai, M. T. (2012). A multidimensional analysis of ethical climate, job satisfaction, organizational commitment, and organizational citizenship behaviors. *Nursing ethics, 19*(4), 513-529.
- Hulin, C. L., & Judge, T. A. (2003). Job attitudes. *Handbook of psychology*.
- Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of management journal, 38*(3), 635-672.
- James, L. R., & Jones, A. P. (1974). Organizational climate: A review of theory and research. *Psychological bulletin, 81*(12), 1096.
- Jiang, K., Chuang, C. H., & Chiao, Y. C. (2015). Developing collective customer knowledge and service climate: The interaction between service-oriented high-performance work systems and service leadership. *Journal of applied psychology, 100*(4), 1089.

- Jiang, K., Hu, J., Hong, Y., Liao, H., & Liu, S. (2017). Do It Well and Do It Right: The Impact of Service Climate and Ethical Climate on Business Performance and the Boundary Conditions. *Journal of applied psychology*. Advance online publication. <http://dx.doi.org/10.1037/apl0000138>.
- Jones, A. P., & James, L. R. (1979). Psychological climate: Dimensions and relationships of individual and aggregated work environment perceptions. *Organizational behavior and human performance*, 23(2), 201-250.
- Jong, A. D., Ruyter, K. D., & Lemmink, J. (2004). Antecedents and consequences of the service climate in boundary-spanning self-managing service teams. *Journal of marketing*, 68(2), 18-35.
- Katz, D., & Kahn, R. L. (1966). The psychology of organizations. *New York: HR Folks International*.
- Kehoe, R. R., & Wright, P. M. (2013). The impact of high-performance human resource practices on employees' attitudes and behaviors. *Journal of management*, 39(2), 366-391.
- Kelley, S. W., & Dorsch, M. J. (1991). Ethical climate, organizational commitment, and indebtedness among purchasing executives. *Journal of personal selling & sales management*, 11(4), 55-66.
- Kiker, D. S., & Motowidlo, S. J. (1999). Main and interaction effects of task and contextual performance on supervisory reward decisions. *Journal of applied psychology*, 84(4), 602.
- Kohlberg, L., & Kramer, R. (1969). Continuities and discontinuities in childhood and adult moral development. *Human development*, 12(2), 93-120.

- Kuhn, K. M. (2016). The rise of the “gig economy” and implications for understanding work and workers. *Industrial and organizational psychology*, 9(1), 157-162.
- LaFollette, W. R., & Sims, H. P. (1975). Is satisfaction redundant with organizational climate?. *Organizational behavior and human performance*, 13(2), 257-278.
- Lazarus, R. S. (1982). Thoughts on the relations between emotion and cognition. *American psychologist*, 37(9), 1019.
- Lenka, U., Suar, D., & Mohapatra, P. K. (2010). Soft and hard aspects of quality management practices influencing service quality and customer satisfaction in manufacturing-oriented services. *Global business review*, 11(1), 79-101.
- Lewin, K., Lippitt, R., & White, R. K. (1939). Patterns of aggressive behavior in experimentally created “social climates”. *The journal of social psychology*, 10(2), 269-299.
- Liao, H., Toya, K., Lepak, D. P., & Hong, Y. (2009). Do they see eye to eye? Management and employee perspectives of high-performance work systems and influence processes on service quality. *Journal of applied psychology*, 94(2), 371.
- Likert, R. (1961). *New patterns of management*. New York: McGraw-Hill.
- Litwin, G. H., & Stringer, R. A. (1968). *Motivation and organizational climate*. Boston: Division of Research, Graduate School of Business Administration, Harvard University.
- Liu, A. M., Fellows, R., & Ng, J. (2004). Surveyors' perspectives on ethics in organisational culture. *Engineering, construction and architectural management*, 11(6), 438-449.

- Locke, E. A. (1976). The nature and causes of job satisfaction. *Handbook of industrial and organizational psychology, 1*, 1297-1343.
- MacCormick, J. S., & Parker, S. K. (2010). A multiple climates approach to understanding business unit effectiveness. *Human relations, 63*(11), 1771-1806.
- Martin, K. D., & Cullen, J. B. (2006). Continuities and extensions of ethical climate theory: A meta-analytic review. *Journal of business ethics, 69*(2), 175-194.
- Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological bulletin, 108*(2), 171.
- McGregor, D. (1960). The human side of enterprise. *New York, 21*(166.1960).
- McKay, P. F., Avery, D. R., & Morris, M. A. (2008). Mean racial-ethnic differences in employee sales performance: The moderating role of diversity climate. *Personnel psychology, 61*(2), 349-374.
- Meade, A. W., & Craig, S. B. (2012). Identifying careless responses in survey data. *Psychological methods, 17*(3), 437.
- Morris, S. A. (1997). Internal effects of stakeholder management devices. *Journal of Business ethics, 16*(4), 413-424.
- Mueller, R. O., & Hancock, G. R. (2008). Best Practices in Structural Equation Modeling. *Best Practices in quantitative methods*.
- Myer, A. T., Thoroughgood, C. N., & Mohammed, S. (2016). Complementary or Competing Climates? Examining the Interactive Effect of Service and Ethical Climates on Company-Level Financial Performance.

- Neal, A., Griffin, M. A., & Hart, P. M. (2000). The impact of organizational climate on safety climate and individual behavior. *Safety science*, 34(1), 99-109.
- Neubaum, D., Mitchell, M., & Schminke, M. (2004). Firm newness, entrepreneurial orientation, and ethical climate. *Journal of business ethics*, 52(4), 335-347.
- Okpara, J. O. (2004). Personal characteristics as predictors of job satisfaction: An exploratory study of IT managers in a developing economy. *Information technology & people*, 17(3), 327-338.
- Ostroff, C., & Schmitt, N. (1993). Configurations of organizational effectiveness and efficiency. *Academy of management journal*, 36(6), 1345-1361.
- Ostroff, C., Kinicki, A. J., & Clark, M. A. (2002). Substantive and operational issues of response bias across levels of analysis: an example of climate-satisfaction relationships. *Journal of applied psychology*, 87(2), 355.
- Ouchi, W. G. (1980). Markets, bureaucracies, and clans. *Administrative science quarterly*, 129-141.
- Paulin, M., Ferguson, R. J., & Bergeron, J. (2006). Service climate and organizational commitment: The importance of customer linkages. *Journal of business research*, 59(8), 906-915.
- Peterson, D. K. (2002). The relationship between unethical behavior and the dimensions of the ethical climate questionnaire. *Journal of business ethics*, 41(4), 313-326.
- Pritchard, R. D., & Karasick, B. W. (1973). The effects of organizational climate on managerial job performance and job satisfaction. *Organizational behavior and human performance*, 9(1), 126-146.

- Podsakoff, N. P., LePine, J. A., & LePine, M. A. (2007). Differential challenge stressor-hindrance stressor relationships with job attitudes, turnover intentions, turnover, and withdrawal behavior: a meta-analysis. *Journal of applied psychology, 92*(2), 438.
- Porter, L. W., Steers, R. M., Mowday, R. T., & Boulian, P. V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of applied psychology, 59*(5), 603.
- Quinn, R. E., & Rohrbaugh, J. (1981). A competing values approach to organizational effectiveness. *Public productivity review, 122-140*.
- Quinn, R. E., & Rohrbaugh, J. (1983). A spatial model of effectiveness criteria: Towards a competing values approach to organizational analysis. *Management science, 29*(3), 363-377.
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: a review of the literature. *Journal of applied psychology, 87*(4), 698.
- Rogg, K. L., Schmidt, D. B., Shull, C., & Schmitt, N. (2001). Human resource practices, organizational climate, and customer satisfaction. *Journal of management, 27*(4), 431-449.
- Rohrbaugh, J. (1981). Operationalizing the competing values approach: Measuring performance in the employment service. *Public productivity review, 141-159*.
- Rojas, R. R. (2000). A Review of Models for Measuring Organizational Effectiveness Among for Profit and Nonprofit Organizations. *Nonprofit management and leadership, 11*(1), 97-104.

- Salanova, M., Agut, S., & Peiró, J. M. (2005). Linking organizational resources and work engagement to employee performance and customer loyalty: the mediation of service climate. *Journal of applied psychology, 90*(6), 1217.
- Salvaggio, A. N., Schneider, B., Nishii, L. H., Mayer, D. M., Ramesh, A., & Lyon, J. S. (2007). Manager personality, manager service quality orientation, and service climate: test of a model. *Journal of applied psychology, 92*(6), 1741.
- Schein, E. H. (1965). *Organizational psychology*. Englewood Cliffs, N.J: Prentice-Hall.
- Schleicher, D. J., Hansen, S. D., & Fox, K. E. (2011). Job attitudes and work values.
- Schminke, M., Ambrose, M. L., & Neubaum, D. O. (2005). The effect of leader moral development on ethical climate and employee attitudes. *Organizational behavior and human decision processes, 97*(2), 135-151.
- Schneider, B. (1975). Organizational climates: An essay<sup>1</sup>. *Personnel psychology, 28*(4), 447-479.
- Schneider, B. (1987). The people make the place. *Personnel psychology, 40*(3), 437-453.
- Schneider, B., & Bartlett, C. J. (1968). Individual differences and organizational climate: The research plan and questionnaire development. *Personnel psychology, 21*(3), 323-333.
- Schneider, B., & Bowen, D. E. (1985). Employee and customer perceptions of service in banks: Replication and extension. *Journal of applied psychology, 70*(3), 423.
- Schneider, B., & Snyder, R. A. (1975). Some relationships between job satisfaction and organization climate. *Journal of applied psychology, 60*(3), 318.
- Schneider, B., Ehrhart, M. G., & Macey, W. H. (2011). Organizational climate research. *The handbook of organizational culture and climate, 29*.



- Schneider, B., Ehrhart, M. G., & Macey, W. H. (2013). Organizational climate and culture. *Annual review of psychology, 64*, 361-388.
- Schneider, B., Ehrhart, M. G., Mayer, D. M., Saltz, J. L., & Niles-Jolly, K. (2005). Understanding organization-customer links in service settings. *Academy of management journal, 48*(6), 1017-1032.
- Schneider, B., Macey, W. H., Lee, W. C., & Young, S. A. (2009). Organizational service climate drivers of the American Customer Satisfaction Index (ACSI) and financial and market performance. *Journal of service research, 12*(1), 3-14.
- Schneider, B., Smith, D. B., & Goldstein, H. W. (2000). *Attraction–selection–attrition: Toward a person–environment psychology of organizations*. Lawrence Erlbaum Associates Publishers.
- Schneider, B., Wheeler, J. K., & Cox, J. F. (1992). A passion for service: Using content analysis to explicate service climate themes. *Journal of applied psychology, 77*(5), 705.
- Schneider, B., White, S. S., & Paul, M. C. (1998). Linking service climate and customer perceptions of service quality: Tests of a causal model. *Journal of applied psychology, 83*(2), 150.
- Schulte, M., Ostroff, C., & Kinicki, A. J. (2006). Organizational climate systems and psychological climate perceptions: A cross-level study of climate-satisfaction relationships. *Journal of occupational and organizational psychology, 79*(4), 645-671.

- Schulte, M., Ostroff, C., Shmulyian, S., & Kinicki, A. (2009). Organizational climate configurations: relationships to collective attitudes, customer satisfaction, and financial performance. *Journal of applied psychology, 94*(3), 618.
- Scott, W. R. (1977). Effectiveness of organizational effectiveness studies. *New perspectives on organizational effectiveness, 63-95*.
- Seashore, S. (1964). Field experiments with formal organizations. *Human organization, 23*(2), 164-170.
- Seibert, S. E., Silver, S. R., & Randolph, W. A. (2004). Taking empowerment to the next level: A multiple-level model of empowerment, performance, and satisfaction. *Academy of management journal, 47*(3), 332-349.
- Settoon, R. P., Bennett, N., & Liden, R. C. (1996). Social exchange in organizations: Perceived organizational support, leader–member exchange, and employee reciprocity. *Journal of applied psychology, 81*(3), 219.
- Shafer, W. E. (2015). Ethical climate, social responsibility, and earnings management. *Journal of business ethics, 126*(1), 43-60.
- Sims, R. L., & Keon, T. L. (1997). Ethical work climate as a factor in the development of person-organization fit. *Journal of business ethics, 16*(11), 1095-1105.
- Solinger, O. N., Van Olffen, W., & Roe, R. A. (2008). Beyond the three-component model of organizational commitment. *Journal of applied psychology, 93*(1), 70.
- Spector, P. E. (1997). *Job satisfaction: Application, assessment, causes, and consequences* (Vol. 3). Sage publications.
- Tannenbaum, A. S. (1962). Control in organizations: Individual adjustment and organizational performance. *Administrative science quarterly, 236-257*.

- Tsai, M. T., & Huang, C. C. (2008). The relationship among ethical climate types, facets of job satisfaction, and the three components of organizational commitment: A study of nurses in Taiwan. *Journal of business ethics, 80*(3), 565-581.
- Tucker, S., Ogunfowora, B., & Ehr, D. (2016). Safety in the C-Suite: How Chief Executive Officers Influence Organizational Safety Climate and Employee Injuries.
- Ulrich, C., O'Donnell, P., Taylor, C., Farrar, A., Danis, M., & Grady, C. (2007). Ethical climate, ethics stress, and the job satisfaction of nurses and social workers in the United States. *Social science & medicine, 65*(8), 1708-1719.
- Vardi, Y. (2001). The effects of organizational and ethical climates on misconduct at work. *Journal of business ethics, 29*(4), 325-337.
- Veld, M., Paauwe, J., & Boselie, P. (2010). HRM and strategic climates in hospitals: does the message come across at the ward level? *Human resource management journal, 20*(4), 339-356.
- Victor, B., & Cullen, J. B. (1987). A theory and measure of ethical climate in organizations. *Research in corporate social performance and policy, 9*(1), 51-71.
- Victor, B., & Cullen, J. B. (1988). The organizational bases of ethical work climates. *Administrative science quarterly, 101*-125.
- Viteles, M. S. (1953). *Motivation and morale in industry*. New York: Norton.
- Watley, L. D. (2002). Enhancing moral intensity: An informational model of ethical decision making. Unpublished doctoral dissertation, University of Nebraska, Lincoln, Nebraska.

- Way, S. A., Sturman, M. C., & Raab, C. (2010). What matters more? Contrasting the effects of job satisfaction and service climate on hotel food and beverage managers' job performance. *Cornell hospitality quarterly*.
- Weber, J., & Seger, J. E. (2002). Influences upon organizational ethical subclimates: A replication study of a single firm at two points in time. *Journal of business ethics*, 41(1-2), 69-84.
- Weiss, H. M. (2002). Deconstructing job satisfaction: Separating evaluations, beliefs and affective experiences. *Human resource management review*, 12(2), 173-194.
- Williams, B. A. O. (1985). *Ethics and the limits of philosophy*. London: Fontana.
- Wimbush, J. C., Shepard, J. M., & Markham, S. E. (1997). An empirical examination of the relationship between ethical climate and ethical behavior from multiple levels of analysis. *Journal of business ethics*, 16(16), 1705-1716.
- Wingreen, S. C., & Blanton, J. E. (2007). A social cognitive interpretation of person-organization fitting: The maintenance and development of professional technical competency. *Human resource management*, 46(4), 631-650.
- Wolf, E. J., Harrington, K. M., Clark, S. L., & Miller, M. W. (2013). Sample size requirements for structural equation models an evaluation of power, bias, and solution propriety. *Educational and psychological measurement*, 73(6), 913-934.
- Zafft, C. R., Adams, S. G., & Matkin, G. S. (2009). Measuring Leadership in Self-Managed Teams Using the Competing Values Framework. *Journal of engineering education*, 98(3), 273-282.
- Zohar, D. (1980). Safety climate in industrial organizations: theoretical and applied implications. *Journal of applied psychology*, 65(1), 96.

Zohar, D., & Luria, G. (2005). A multilevel model of safety climate: cross-level relationships between organization and group-level climates. *Journal of applied psychology, 90*(4), 616.

## **APPENDIX A**

### **MEASURES**

### **Ethical Climate Questionnaire (Victor & Cullen, 1988)**

#### **INSTRUCTIONS TO OBSERVERS:**

*We would like to ask you some questions about the general climate in your company (or other unit reference). Please answer the following in terms of how it really is in your company, not how you would prefer it to be. Please be as candid as possible; remember, all your responses will remain strictly anonymous.*

*Please indicate whether you agree with each of the following statements about your company. Please use the scale below and write the number which best represents your answer in the space next to each item.*

- 0 – Completely false
- 1 – Mostly false
- 2 – Somewhat false
- 3 – Somewhat true
- 4 – Mostly true
- 5 - Completely true

*To what extent are the following statements true about your company?*

#### **Caring**

1. What is best for everyone in the company is the major consideration here.

(CaringClimate1)

2. The most important concern is the good of all people in the company as a whole

(CaringClimate2)

3. Our major concern is always what is best for the other person (CaringClimate3)

4. In this company, people look out for each other's good. (CaringClimate4)

5. In this company, it is expected that you will always do what is right for the customers and public (CaringClimate5)

6. The most efficient way is always the right way in this company (CaringClimate6)

7. In this company, each person is expected above all to work efficiently

(CaringClimate7)

### Law and Code

8. People are expected to comply with the law and professional standards over and above other considerations.
9. In this company, the law or ethical code of their profession is the major consideration.
10. In this company, people are expected to strictly follow legal or professional standards
11. In this company, the first consideration is whether a decision violates any law

### Rules

12. It is very important to follow the company's rules and procedures here.
13. Everyone is expected to stick by company rules and procedures
14. Successful people in this company go by the book.
15. People in this company strictly obey the company policies

### Instrumental

16. In this company, people protect their own interests above all else.  
(InstrumentalClimate1)
17. In this company, people are mostly out for themselves. (InstrumentalClimate2)
18. There is no room for one's own personal morals or ethics in this company  
(InstrumentalClimate3)
19. People are expected to do anything to further the company's interests, regardless of the consequences. (InstrumentalClimate4)



20. People here are concerned with the company's interests—to the exclusion of all else.

(InstrumentalClimate5)

21. Work is considered substandard only when it hurts the company's interests

(InstrumentalClimate6)

22. The major responsibility of people in this company is to control costs.

(InstrumentalClimate7)

### Independence

23. In this company, people are expected to follow their own personal and moral beliefs

24. Each person in this company decides for themselves what is right and wrong

25. The most important concern in this company is each person's own sense of right and wrong.

26. In this company, people are guided by their own personal ethics.

**Global Service Climate (Schneider, White, & Paul, 1998)**

*Please use the scale below to respond to the following questions.*

- 1 – Poor
- 2 – Fair
- 3 – Good
- 4 – Very good
- 5 – Excellent

1. How would you rate the job knowledge and skills of employees in your business to deliver superior quality work and service? (ServiceClimate1)
2. How would you rate efforts to measure and track the quality of the work and service in your business? (ServiceClimate2)
3. How would you rate the recognition and rewards employees receive for the delivery of superior work and service? (ServiceClimate3)
4. How would you rate the overall quality of service provided by your business? (ServiceClimate4)
5. How would you rate the leadership shown by management in your business in supporting the service quality effort? (ServiceClimate5)
6. How would you rate the effectiveness of our communications efforts to both employees and customers? (ServiceClimate6)
7. How would you rate the tools, technology, and other resources provided to employees to support the delivery of superior quality work and service? (ServiceClimate7)

**Job in General (Balzer et al., 1990)**

Think of your job in general. All in all, what is it like most of the time? In the blank

beside each word or phrase below, write:

**Y** for “Yes” if it describes your job

**N** for “No” if it does not describe your job

**?** for “?” if you cannot decide

- \_\_\_ Pleasant (JobSatisfaction1)
- \_\_\_ Bad (JobSatisfaction2)
- \_\_\_ Great (JobSatisfaction3)
- \_\_\_ Waste of time (JobSatisfaction4)
- \_\_\_ Good (JobSatisfaction5)
- \_\_\_ Undesirable (JobSatisfaction6)
- \_\_\_ Worthwhile (JobSatisfaction7)
- \_\_\_ Worse than most (JobSatisfaction8)
- \_\_\_ Acceptable (JobSatisfaction9)
- \_\_\_ Superior (JobSatisfaction10)
- \_\_\_ Better than most (JobSatisfaction11)
- \_\_\_ Disagreeable (JobSatisfaction12)
- \_\_\_ Makes me content (JobSatisfaction13)
- \_\_\_ Inadequate (JobSatisfaction14)
- \_\_\_ Excellent (JobSatisfaction15)
- \_\_\_ Rotten (JobSatisfaction16)
- \_\_\_ Enjoyable (JobSatisfaction17)
- \_\_\_ Poor (JobSatisfaction18)

### **Organizational Commitment (Allen & Meyer, 1990)**

*Please use the scale below to indicate your level of agreement with the following statements.*

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Somewhat disagree
- 4 – Neither agree nor disagree
- 5 – Somewhat agree
- 6 – Agree
- 7 – Strongly agree

#### **Affective Commitment Scale**

1. I would be very happy to spend the rest of my career with this organization (OrgCommitment1)
2. I enjoy discussing my organization with people outside it (OrgCommitment2)
3. I really feel as if this organization's problems are my own (OrgCommitment3)
4. I think that I could easily become as attached to another organization as I am to this one (R) (OrgCommitment4)
5. I do not feel like 'part of the family' at my organization (R) (OrgCommitment5)
6. I do not feel 'emotionally attached' to this organization (R) (OrgCommitment6)
7. This organization has a great deal of personal meaning for me (OrgCommitment7)
8. I do not feel a strong sense of belonging to my organization (R) (OrgCommitment8)

### Continuance Commitment Scale

1. I am not afraid of what might happen if I quit my job without having another one lined up (R) (OrgCommitment9)
2. It would be very hard for me to leave my organization right now, even if I wanted to (OrgCommitment10)
3. Too much in my life would be disrupted if I decided I wanted to leave my organization now (OrgCommitment11)
4. It wouldn't be too costly for me to leave my organization now (R) (OrgCommitment12)
5. Right now, staying with my organization is a matter of necessity as much as desire (OrgCommitment13)
6. I feel that I have too few options to consider leaving this organization (OrgCommitment14)
7. One of the few serious consequences of leaving this organization would be the scarcity of available alternatives (OrgCommitment15)
8. One of the major reasons I continue to work for this organization is that leaving would require considerable personal sacrifice – another organization may not match the overall benefits I have here (OrgCommitment16)

## Normative Commitment Scale

1. I think that people these days move from company to company too often  
(OrgCommitment17)
2. I do not believe that a person must always be loyal to his or her organization (R)  
(OrgCommitment18)
3. Jumping from organization to organization does not seem at all unethical to me (R)  
(OrgCommitment19)
4. One of the major reasons I continue to work for this organization is that I believe that loyalty is important and therefor feel a sense of moral obligation to remain  
(OrgCommitment20)
5. If I got another offer for a better job elsewhere I would not feel it was right to leave my organization (OrgCommitment21)
6. I was taught to believe in the value of remaining loyal to one organization  
(OrgCommitment22)
7. Things were better in the days when people stayed with one organization for most of their careers (OrgCommitment23)
8. I do not think that wanted to be a 'company man' or 'company woman' is sensible anymore (R) (OrgCommitment24)

**APPENDIX B**

**MODEL FIT STATISTICS FOR MEASUREMENT**

**AND LATENT PATH MODELS**

Table B1.

*Model Fit Statistics for Measurement and Latent Path Models*

Iteration	Description	N Parameters	df	CMIN*	CMIN/df	GFI	AGFI	RMR	RMSEA	NFI	CFI
<b>Measurement Model</b>											
1	Initial Measurement Model	175	2828	<b>11970.04</b>	4.23	0.61	0.58	0.20	0.07	0.67	0.72
2	Removed low factor loadings.	141	1689	<b>6567.22</b>	3.89	0.70	0.67	0.13	0.07	0.77	0.82
3	Added covariance paths for observed error terms.	176	1654	<b>4373.71</b>	2.64	0.81	0.79	0.13	0.05	0.85	0.90
<b>Latent Path Model</b>											
1	Hypotheses testing.	175	1655	<b>4467.02</b>	2.70	0.81	0.79	0.15	0.05	0.85	0.90

\*CMIN was statistically significant at  $p < .001$  for all models.



**APPENDIX C**

**HUMAN USE APPROVAL LETTER**



LOUISIANA TECH  
UNIVERSITY

MEMORANDUM

OFFICE OF SPONSORED PROJECTS

TO: Mr. Christopher Huynh and Dr. Steven Toaddy

FROM: Dr. Richard Kordal, Director of Intellectual Property & Commercialization  
(OIPC) *DK*  
[rkordal@latech.edu](mailto:rkordal@latech.edu)

SUBJECT: HUMAN USE COMMITTEE REVIEW

DATE: February 15, 2018

In order to facilitate your project, an EXPEDITED REVIEW has been done for your proposed study entitled:

**“Understanding Competing Climates: A Theoretical Framework for  
Examining Service and Ethical Climates”**

**HUC 18-090**

The proposed study's revised procedures were found to provide reasonable and adequate safeguards against possible risks involving human subjects. The information to be collected may be personal in nature or implication. Therefore, diligent care needs to be taken to protect the privacy of the participants and to assure that the data are kept confidential. Informed consent is a critical part of the research process. The subjects must be informed that their participation is voluntary. It is important that consent materials be presented in a language understandable to every participant. If you have participants in your study whose first language is not English, be sure that informed consent materials are adequately explained or translated. Since your reviewed project appears to do no damage to the participants, the Human Use Committee grants approval of the involvement of human subjects as outlined.

Projects should be renewed annually. *This approval was finalized on February 15, 2018 and this project will need to receive a continuation review by the IRB if the project continues beyond*

*February 15, 2019. ANY CHANGES* to your protocol procedures, including minor changes, should be reported immediately to the IRB for approval before implementation. Projects involving NIH funds require annual education training to be documented. For more information regarding this, contact the Office of Sponsored Projects.

You are requested to maintain written records of your procedures, data collected, and subjects involved. These records will need to be available upon request during the conduct of the study and retained by the university for three years after the conclusion of the study. If changes occur in recruiting of subjects, informed consent process or in your research protocol, or if unanticipated problems should arise it is the Researchers responsibility to notify the Office of Sponsored Projects or IRB in writing. The project should be discontinued until modifications can be reviewed and approved.

Please be aware that you are responsible for reporting any adverse events or unanticipated problems.

A MEMBER OF THE UNIVERSITY OF LOUISIANA SYSTEM

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