

# **EXAMINING THE IMPACT OF SALES CLIMATE ON SALES PERFORMANCE AND CUSTOMER SATISFACTION.**

## **ABSTRACT**

Organizational climate – i.e., the shared understanding among organizational members regarding what is facilitated, supported, and rewarded in the organization -- has long been considered an important influence on directing employee efforts toward organizational goals (Schneider 1990; Schneider et al. 2006). Research has demonstrated that a climate aligned strategically with organizational goals relates positively to corresponding performance outcomes. For example, service climate positively affects service quality (Schneider et al. 1998; de Jong et al. 2004, Salanova et al. 2005), safety climate leads to safer work behavior (Zohar 2000; Zohar 2002; Zohar and Luria 2005), and diversity climate leads to equality of performance across ethnic groups (McKay et al. 2008).

Given the importance of the salesforce as the organization's primary revenue generator and the principal point of contact with customers, fostering a *sales climate* is likely to produce beneficial outcomes. However, past research has not examined the effects of a sales climate on important outcomes such as sales revenue and customer satisfaction. In this study, we define a multi-dimensional sales climate construct and examine its effects on these critical organizational performance metrics.

We base our conceptualization of sales climate on the fundamental functions performed by salespeople during the selling process. Rackham and DeVicintis (1999) identify co-producing individualized solutions for customers and closing sales to insure

realization of revenue streams as important functions of the salesforce. We conceptualize sales climate as a multi-dimensional construct that captures *the shared perception among salespeople regarding the extent to which the organization facilitates and supports co-producing customer value and the extent to which the organization provides informal social and psychological benefits for closing sales and achieving high sales revenue.*

First, we define and develop the sales climate construct. Second, we assess whether sales climate has incremental effects on revenue and customer satisfaction, over and above the effects of formal controls. Identifying unique effects of sales climate as a form of informal control represents a meaningful contribution of our study. Third, we examine whether sales climate augments the effects of formal salesforce controls or acts as a substitute for them.

## 1. INTRODUCTION

Achieving sales and customer satisfaction targets can be extremely challenging in competitive environments. The salesforce is the fulcrum through which companies strive toward these targets and thus plays a crucial role in determining organizational success (Ingram et al., 2002). Creating a work environment that supports and facilitates salesperson efforts and rewards and recognizes them for their contributions is likely to play an important role in motivating them to work towards organizational goals.

An abundance of research has shown that *organizational climate*, defined as the shared perception among employees regarding what practices, procedures, and activities get facilitated, supported, and rewarded (Schneider, 1990), greatly influences employees' goal-directed behavior. Organizational climate reflects how employees perceive and interpret their work environment in regard to the behaviors that matter most to the organization (Schneider et al. 2006). The shared understanding among employees regarding what is supported and rewarded by the organization influence what type of activities they choose to engage in, which, in turn, affects performance outcomes (Schneider, 1990; Schneider et al. 2006).

A strategically focused organizational climate helps companies achieve their goals. For example, studies have found that a service climate helps improve the quality of service provided to customers (Schneider et al. 1998; de Jong et al. 2004; Salanova et al. 2005), customer satisfaction (Schneider et al., 2005), and customer retention (Hui and Aichia, 2007).

Given that salespeople are the organization's primary revenue generators and the principal point of contact with customers, fostering a sales climate is likely to produce beneficial outcomes. However, to date nobody has looked at the effects of this important organizational climate in helping organizations achieve sales and customer satisfaction goals. We aim to fill this gap. We conceptualize the sales climate construct, develop an operational measure for it and empirically assess its effects on both sales performance and customer satisfaction.

The contributions of our study are as follows. First, we define a multi-dimensional sales climate construct and discuss its role as an informal control system within the organization. Second, we examine the incremental effects of sales climate (as a form of informal control) on sales performance and customer satisfaction, above and beyond the effects of formal salesforce controls. Identifying the unique effects of climate and control is an important contribution of our study. Third, we examine how sales climate and formal salesforce controls interact in predicting performance outcomes. We test two plausible but mutually exclusive interaction hypotheses, one suggesting that sales climate augments the effects of formal controls, the other positing that sales climate reduces their effects.

## **2. CONCEPTUAL DEVELOPMENT**

This section presents the conceptual framework underlying the research questions: what is a sales climate? How can we measure it? Does the sales climate have an impact on revenue and customer satisfaction over and above the effect of formal controls? And does the sales climate make formal controls more or less effective? We first present the conceptual development of the sales climate construct and discuss the role of sales climate as an informal control system within the organization. We then develop hypotheses that examine incremental and interactive effects of sales climate in relation to formal controls in predicting both sales performance and customer satisfaction.

### **Organizational Climate**

Schneider (1990) conceptualizes organizational climate as *employees' shared perceptions regarding practices, procedures, and activities that get supported, facilitated and rewarded in the organization*. Organizational climate refers to the meaning employees attach to cues they observe in their day-to-day work life (Schneider 1990; Schneider et al. 2006). Based on cues they perceive in the work environment, employees formulate a summary impression on what type of practices, procedures, and behavior are expected, supported and rewarded in the organization (Schneider et al. 2006). By experiencing the same work environment and by communicating with each other, employees come to share these impressions, and this shared perception is referred to as “organizational climate” (Schneider et al. 2006).

Schneider (1990) argues that in order to be meaningful, the organizational climate has to be *for something*. In line with this view, the impact of a specific, strategically focused organizational climate has been examined in past research. For example, service climate has a positive impact on service quality (Schneider et al., 1998; de Jong et al., 2004; Salanova et al., 2005), customer satisfaction (Schneider et al., 2005), and customer retention (Hui and Aichia, 2007). Safety climate enhances safer work behavior (Zohar 2000; Zohar and Luria 2005). Diversity climate leads to equality of performance across ethnic groups (McKay et al. 2008). Consistent with prior literature, this study focuses on the sales climate of organizations and examines its influence on sales performance and customer satisfaction.

### **Sales Climate**

We base our conceptualization of the sales climate construct on two fundamental functions performed by salespeople during the selling process. Salespeople must identify the needs of customers and help customers adapt the product to fit their individual needs. This involves ensuring that the generic product of the organization is shaped and molded to fit the customer's unique needs and making sure that the customer receives necessary support services to use the product in a satisfactory manner. Rackham and DeVicintis (1999) identify this key function as value co-production in which salespeople play an active role in creating customer value that goes beyond the benefits of the generic product. The second function is one that is traditionally associated with salespeople: closing sales and generating dollar revenue.

In our conceptualization, the sales climate of the company represents the extent to which the organization facilitates, supports and rewards these key functions performed by salespeople. We define sales climate as a multi-dimensional, formatively indicated construct that captures *the shared perception among salespeople regarding the extent to which the organization facilitates and supports co-producing customer value and the extent to which the organization provides informal social and psychological benefits for closing sales and achieving high sales revenue*. We describe the two dimensions of the sales climate construct as follows.

#### *Co-producing*

In most selling contexts, one size does not fit all. One crucial function of salespeople is to work with both customer and the salesperson's own organization to insure that the product fits the customer's individual needs (Plouffe and Barclay, 2007). Salespeople has to serve as customer advocates to ensure that the product is custom-tailored to meet the unique needs of the customer and that the customers receive after-sale services required for the satisfactory functioning of the product (Rackham and DeVincentis, 1999). The extent to which the organization facilitates and supports salesperson efforts to ensure that the product meets the customer's individual needs reflects the co-producing dimension of sales climate.

#### *Closing*

Beyond the formal, material, and organizationally mediated rewards for high sales performance, informal rewards (e.g., social status, recognition, and respect from

coworkers) are a strong force motivating superior employee performance (Pfeffer, 1998). The closing dimension captures the shared perception among salespeople regarding the extent to which the informal social environment of the organization provides social and psychological rewards for achieving high sales.

Consistent with the criteria established by Jarvis et al. (2003), we regard the first-order dimensions of sales climate as formative indicators of the higher-order sales climate construct. As such, we are interested in their individual and interactive effects on performance outcomes and frame our hypotheses at the level of the first-order dimensions, rather than at the level of the second-order construct.

### **Sales Climate as an Informal Control System**

In this section, we discuss the role of sales climate as an informal control system that motivates and directs salesperson's work effort. To put things in context, we first look at formal salesforce controls that are typically used by organizations to direct and motivate salespeople. Formal organizational controls consist of standards and measures used by the organization to direct employee effort toward criteria of importance to the organization and to serve as the basis for performance evaluation (Jaworski 1988; Ouchi 1979; Anderson and Oliver 1987). Monitoring the day-to-day activities of salespeople, compensating them, awarding bonuses and promotions based on sales performance, and providing supervisory feedback on progress towards sales goals are examples of formal controls in action (Anderson and Oliver 1987; Babakus et al., 1996; Challagalla and Shervani 1996).



Anderson and Oliver (1987) identify two main types of formal salesforce control systems: behavior and outcome controls. Behavior controls evaluate salespeople based on how well they perform day-to-day sales activities, whereas outcome controls evaluate them based on end results, such as sales revenue. Numerous empirical studies have shown that these two types of formal controls have a positive impact on sales performance (e.g. Oliver and Anderson, 1994; Babakus et al., 1996; Challagalla and Shervani 1996; Cravens et al. 1993; Cravens et al. 2004; Piercy et al. 2004, Piercy et al. 2006).

However, formal controls are not the only control mechanisms working to direct employee behavior toward organizational goals. Jaworski (1988) emphasizes that certain worker-initiated *informal* control mechanisms have an important influence. Specifically, he highlights the importance of “social controls,” whereby employees develop a common view of desired behaviors, monitor the extent to which peers conform to these behaviors, and take socially mediated action to correct deviations. Several authors have discussed the importance of social controls, described variously as “clan controls” (Ouchi 1979;1980) or “professional controls” (Waterhouse and Tiessen 1978; Jaworski and MacInnis 1989). As noted by Jaworski (1988), informal controls may or may not be consistent with the expressed objectives of the organization.

Organizational climate, and sales climate in particular, can be viewed as an informal control mechanism that directs employee behavior through social influence dynamics. Collective understanding among employees regarding what is facilitated, supported, and rewarded in the organization helps orchestrate individual contributions toward organizational goals (Schneider et al., 2006). A strong sales climate indicates that

salespeople perceive that the organization actively supports their efforts to adapt the product to fit customer needs, provide superior after-sale service, and reward and recognize salespeople who achieve high sales volume. Collective understanding among salespeople regarding organizational priorities in relation to the sales function is likely to play an important role in directing and motivating salespeople to perform well with respect to individual and organizational goals. In this sense, sales climate can be considered an informal control system that influences the type of activities salespeople engage in and the amount of effort they put into each activity.

### **Sales Climate and Formal Controls**

Although Jaworski (1988) and colleagues (Jaworski and MacInnis 1989; Jaworski et al. 1993) investigated effects of both formal and informal controls, salesforce research has largely neglected the role of informal controls. A handful of studies have looked at both formal and informal controls on salesperson performance (e.g. Cravens et al, 2004; Flaherty et al., 2007); however, researchers have not estimated the relative strengths or interactive effects of these two types of control mechanisms. In our view, it is important to reestablish the distinction between formal and informal controls and assess their unique and interactive effects in relation to performance outcomes. In this study, we assess the effects of both sales climate and formal controls, identifying their unique and interactive effects on two very important performance outcomes: sales revenue and customer satisfaction.

Although Jaworski (1988) posits that informal controls that are well aligned with formal controls will augment the effects of formal controls, there are equally plausible

reasons for expecting the opposite effect (i.e., a negative moderating effect of sales climate on the formal control-performance relationship). In the following section, we present arguments for the incremental effect of sales climate dimensions on performance outcomes (i.e. revenue and customer satisfaction), over and above the effects of formal controls. We also look at how these dimensions moderate the control-performance relationship. We provide both positive (augmenting) and negative (substituting) rationales and will test the exact nature of the moderation effect empirically.

### *Incremental Effects of Sales Climate*

Partitioning variance and identifying unique effects of climate and control is an important contribution of our study. We suggest that co-producing and closing dimensions of sales climate will have positive effects on sales performance. Climate signals types of behavior valued by the organization, which motivates employees to perform these behaviors (Schneider et al., 1998). A climate for co-producing indicates that the organization provides ample support and resources to help salespeople co-produce individualized solutions for customers. The shared understanding that the organization values these activities plays a crucial role in directing and motivating salespeople to spend time and effort individualizing products to fit the customer's needs and to ensure that the customer receives post-sale services he/she requires for the product to function in a satisfactory manner. Similarly, a climate for closing, in which revenue production determines social status and recognition, should motivate salespeople to achieve high sales. Therefore, we hypothesize that:

H1a: A climate for co-producing will have a positive effect on sales performance.

H1b: A climate for closing will have a positive effect on sales performance.

We expect that the effects on customer satisfaction, by contrast, will vary across the two sales climate dimensions. A climate for co-producing, should motivate salespeople to identify individual needs of the customer and to tailor products to cater to those needs. It should also motivate salespeople to engage in effort to provide superior after-sale service to customers. As such, a climate for co-producing should have a positive effect on customer satisfaction. In contrast, a climate for closing, in which sales production determines recognition and respect among peers, may motivate salespeople to be more sales-oriented (as opposed to customer-oriented). This may result in lower customer satisfaction. Therefore, we expect that:

H2a: A climate for co-producing will have a positive effect on customer satisfaction.

H2b: A climate for closing will have a negative effect on customer satisfaction.

This study also examines the interactive effects of sales climate dimensions on performance outcomes. We posit that by emphasizing co-producing customer value companies can enhance the positive effect of closing on sales performance, while attenuating its negative effect on customer satisfaction. A climate for closing indicates that in order to acquire social recognition and respect at the work place you need to attain high sales numbers. However, when you simultaneously have a climate emphasizing value co-production, salespeople would *also* be motivated to be customer focused and help customers acquire products and services that fulfill their needs. A climate for co-producing value will also deter salespeople from using high pressure and manipulative influence tactics to close the sale. Therefore, when you have a climate for both closing *and* co-producing, salespeople will be motivated to sell, but they will be motivated to sell

with the objective of fulfilling the customer's unique needs. Therefore, we hypothesize that:

H3a: A climate for co-producing will enhance the positive effect of closing on sales performance.

H3b: A climate for co-producing will attenuate the negative effect of closing on customer satisfaction.

The incremental effects of climate dimensions discussed above are depicted in figure 1(see appendix). The effects of different sales climate dimensions posited in H1a through H3b will be assessed over and above the effects of formal salesforce controls, thus identifying unique effects of climate and control on two important performance metrics.

We also predict that the organizational sales climate will interact with formal controls to direct employee effort towards sales goals. Extant literature suggests two different, mutually exclusive ways in which climate might interact with formal controls in determining sales performance. We offer both sets of hypotheses regarding interactions of sales climate with formal controls without venturing a strong prior expectation of which set is most likely. We begin by describing the line of reasoning that leads to hypotheses that sales climate will augment the effects of formal controls.

### *Interaction between Sales Climate and Formal Controls in Predicting Sales Performance*

#### *1. Augmentation Effects*

On one hand, sales climate can be viewed as an informal control system that enhances the effectiveness of formal controls implemented by the organization. While

formal controls specify targets and monitor progress towards achieving them, organizational climate signals through shared perceptions and informal communication what really counts in the organization. A strong sales climate indicates that co-producing and closing are key foci of organizational attention. The main objective of formal controls is to direct and motivate salespeople to perform their sales activities effectively and achieve revenue targets. Thus, both sales climate and formal controls tend to drive employees toward the same goals. Jaworski (1988) argues that informal controls that are aligned with formal controls will have a reinforcing augmentation effect. Although they do not specifically test it, several empirical studies (Cravens et al. 2004; Jaworski 1988; Jaworski and MacInnis 1989; Jaworski et al. 1993)<sup>1</sup> suggest a positive interaction between formal and informal controls in relation to job performance. In addition, a climate for co-producing signals that the organization provides ample support to meet the customers' unique needs, facilitating salespeople to achieve the standards specified by the formal control system. A climate for closing indicates that apart from formal rewards (e.g., commissions, bonuses), the organization also provides social and psychological benefits (e.g. recognition, social status) for achieving revenue targets. As such, formal controls will work better when there is a strong sales climate within the organization.

This line of reasoning leads to the following hypotheses:

H4a: A climate for co-producing will amplify the positive effect of formal controls on sales performance.

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<sup>1</sup> These studies have used discriminant analysis to compare performance across different control combinations and have not directly tested the main or interaction effects of formal and informal controls. However, findings of these studies suggest the possibility of a mutually enhancing interaction effect.

H4b: A climate for closing will amplify the positive effect of formal controls on sales performance.

## 2. *Substitution Effects*

Another way of thinking about organizational climate is to consider it a *substitute for leadership*. Kerr and Jermier (1978, p. 395) define substitutes for leadership as individual, task, and organizational factors that “render leadership not only impossible but also unnecessary.” Substitutes for leadership negate leaders' influence on subordinate performance (Jermier and Kerr 1997; Kerr and Jermier 1978). Formal controls call for a high degree of manager involvement, as managers must monitor and direct day-to-day activities of sales employees and provide feedback on progress toward sales goals.

However, a strong sales climate suggests that employees already have a clear comprehension that individualizing products to fit customer needs and closing sales are top priorities of the organization and should be central in their work efforts. Thus, when the organization has a strong sales climate, salespeople should be motivated to perform these sales tasks effectively, *even with little supervision* (i.e. formal managerial control). As such, sales climate may reduce the effects of formal controls on sales outcomes.

Based on this argument, we propose hypothesis countering those posited in H4a and H4b:

H5a: A climate for co-producing will attenuate the positive effect of formal controls on sales performance.

H5b: A climate for closing will attenuate the positive effect of formal controls on sales performance.

Hypotheses 4a to 5b suggest that a sales climate can either enhance or reduce the effectiveness of formal controls on sales performance. Both perspectives are plausible, and which is correct remains an empirical question that will be tested in this study.

#### *Interactions in Relation to Customer Satisfaction*

Anderson and Oliver (1987) suggest that behavior controls, which reward salespeople based on how they perform work activities, improve customer satisfaction. Several empirical studies (e.g. Baldauf et al., 2001; Piercy et al., 2004; Piercy et al., 2006; Theodosiou and Katsikea, 2007), have shown that behavior controls contribute to enhance behavioral performance (e.g., effectiveness of sales presentations, use of adaptive selling techniques, etc.) of salespeople. Past studies have reported a positive correlation between behavior controls and customer satisfaction (e.g. Cravens et al., 1993; Baldauf et al, 2002). We argue that a climate favoring value co-production will further motivate salespeople to effectively interact with customers and be more responsive to their unique needs. Such a climate will enhance the positive effect of behavior controls on customer satisfaction. However, when there is a strong social reward and recognition system based on sales production (i.e. a climate for closing), it will deter salespeople from emphasizing customer service while motivating them to engage in hard-sell strategies to close the sale. As such, when there is a strong climate for closing, behavior controls will be less effective in enhancing customer satisfaction. Therefore:  
H6a: A climate for co-producing will enhance the positive effect of behavior controls on customer satisfaction.



H6b: A climate for closing will attenuate the positive effect of behavior controls on customer satisfaction.

According to Anderson and Oliver (1987), output controls tend to focus salespeople's efforts on closing immediate sales and discourage salespeople from investing their time and energy in identifying customer needs and providing superior service. This in turn has detrimental effects on customer satisfaction. However, a strong climate for value co-production will encourage salespeople to engage in customer-oriented behaviors that mitigate this negative effect. Conversely, by providing an additional informal social reward system for attaining high sales numbers, a climate for closing will further motivate salespeople to concentrate on sales volume, amplifying the negative effect of output control on customer satisfaction. Therefore, we hypothesize that:

H7a: A climate for co-producing will attenuate the negative effect of output controls on customer satisfaction.

H7b: A climate for closing will amplify the negative effect of output controls on customer satisfaction.

In summary, in this section we define and develop the sales climate construct. We discuss the incremental effects of sales climate on sales performance and customer satisfaction after controlling for the effects of formal controls. We also offer hypotheses concerning how sales climate and formal controls interact in predicting both sales and customer metrics.

### **3. METHOD**

This section describes the method adopted to conduct the research. We discuss the sample, measurement instruments, and data analysis method to be used and rationales for their selection.

#### **Data collection**

##### *Sample*

Data for the study is currently been collected from vehicle dealerships selling vehicles of one of world's largest motor vehicle manufacturers. The sample consists of approximately 400 salespeople belonging to 50 dealerships located across several metropolitan areas in one of the largest states in the U.S.<sup>2</sup>. This sampling frame is ideal for our study, as individually owned dealerships provide a heterogeneous set of organizational units that are likely to vary in terms of climate and control. All these dealerships sell the same products belonging to a major brand; thus, the sample frame inherently allows us to control for background factors (Calder et al. 1981) that might cause variances in sales and customer satisfaction. Further, this sampling method is consistent with that adopted by previous studies on organizational climate, in which researchers collect data from different outlets of a company selling the same product (e.g.

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<sup>2</sup> We have secured the collaboration of the distributor who provides vehicles to these dealerships. The particular distributor is one of the two main distributors supplying vehicles of a major motor brand to dealerships located across U.S. The survey questionnaires will be administered through the distributor and data on sales performance and customer satisfaction will also be obtained through the particular company.

Jong et al. 2004; McKay et al. 2008; Salanova et al. 2005; Salvaggio et al. 2007; Schneider et al. 2005; Schneider et al. 1998).

### *Measures*

*Sales Climate:* We largely followed the guidelines recommended by Nunnally (1978) and Churchill (1979) to develop a scale for the sales climate construct. We began by conducting in-depth interviews with several experienced sales managers. During these interviews, we asked the sales managers to articulate thoughts that come to mind when they hear the term “sales climate” and to describe characteristics of an organization that had a good climate for sales. These interviews were very valuable in providing insights on how practitioners viewed the sales climate concept.

We then developed a conceptual definition for the sales climate construct based on (a) definitions of similar constructs described in the literature, and (b) information gathered through the in-depth interviews. Churchill (1979) emphasizes the need to couple a thorough literature review and in-depth discussions with area experts when developing new constructs. After several rounds of revision, in which we assessed the face validity of each item, we developed a list of measurement items that tapped into the multi-dimensional domain of the sales climate construct. We then selected items and adjusted the wording to fit the work context present at vehicle dealerships. Using this set of measures, we will collect data using a survey questionnaire from individual salespeople working in each dealership.

Because the sales climate is conceptualized as an organizational-level construct, we will aggregate the data obtained from individual salespeople to arrive at a sales

climate measure for the dealership (i.e. organizational unit). However, Klein et al. (1994) highlight the importance of first checking for agreement before aggregating individual-level data to arrive at an organizational-level measure. Intraclass correlations, i.e. ICC(1) and ICC(2) (Bartko, 1976; Shrout & Fleiss, 1979) and  $r_{wg}$  statistic (James, 1982; James et al., 1984) are indicators typically used for this purpose. Bliese (2000) reported an acceptable ICC(1) range from 0.05 to 0.20 and Click (1985) recommended an ICC(2) cutoff of 0.60. James et al. (1984) recommends a  $r_{wg}$  cut off of 0.70. After checking for agreement using ICC(1), ICC(2) and  $r_{wg}$  statistics, we will aggregate responses from individual salespeople to arrive at a sales climate measure for the dealership.

*Formal Controls:* We will adapt the scale developed by Challagalla and Shervani (1996) to measure formal controls. This is a popular scale used in past research to capture behavior and output controls operating in organizations. Though Challagalla and Shervani (1996) further subdivide behavior and output controls into nine dimensions, this type of subdivision is not necessary for our study. Therefore, we have adapted the scale to obtain a suitable set of measurement items that would capture behavior and output controls used in dealerships. We will collect data from salespeople using a survey questionnaire (exhibit A). After checking for agreement (i.e. ICC(1), ICC(2) and  $r_{wg}$ ), we will aggregate responses collected from individual salespeople to arrive at a dealership-level measure of formal controls.

*Performance:* We will use company records to obtain data on sales performance and customer satisfaction for each salesperson. By acquiring data on the dependent variables from a different source, we can avoid percept-precept inflation and common method bias (Crampton and Wagner 1994; Podsakoff et al. 2003). The number of

vehicles sold by each salesperson will be used as an indicator of sales performance. Data obtained from customer satisfaction surveys (conducted by the distributor that provides vehicles to the dealerships) will be used to arrive at a customer satisfaction index that will be used as a measure of customer satisfaction. The customer satisfaction index is calculated for individual salespeople working for the dealership. To help establish causality, performance data will be collected for a time period following the time in which we collect survey data.

*Control Variables:* Past research suggests that salesperson's age and experience (Churchill Jr et al. 1985) may be related to their performance. We will include these as control variables.

The survey questionnaire will be administered through the distributor who provides vehicles for each dealership. The distributor will hand out the questionnaires to salespeople at dealership meetings. This will help us attain a response rate very close to hundred percent. To encourage candid responses, salespeople will be guaranteed confidentiality and their completed questionnaires will be put into a sealed envelope and returned to the researcher. Each salesperson completing a survey response will be eligible for a lottery prize of a thousand dollars.

Data on sales performance (i.e. number of vehicles sold by each salesperson) will be obtained from each dealership through the distributor for subsequent quarters following the time-period in which we collect survey data. Customer satisfaction indexes will also be obtained for the same quarters. This will allow us to test the effects of sales climate on both cross-sectional performance and performance over time.

## **Data Analysis**

Due to the nested structure in the data (i.e. salespeople nested within different dealerships), we will use a multi-level modeling approach to examine how the sales climate and formal controls at the dealership-level predict performance of individual salespeople working within dealerships. We will use hierarchical linear modeling (HLM6) to analyze the data. This statistical package is commonly used when individuals are nested within organizational units. In such situations, the non-independence of individual-level observations nested within organizational units may bias regular OLS regression estimates (Raudenbush and Bryk 2002). To test our hypotheses, we will run two separate hierarchical linear models, one with sales performance as the dependent variable and the other with customer satisfaction as the dependent variable. We will use an ‘intercepts as outcomes’ model described by Raudenbush and Bryk (2002, pg. 27). To assess the effects of the control variables, the performance metrics (i.e. sales/customer satisfaction) of individual salespeople will be modeled as functions of age and experience at level 1. The hypotheses will be tested by modeling the intercepts of the level 1 analyses as functions of the main and interactive effects of sales climate and formal controls at level 2 (as developed in the preceding section).

In conclusion, this dissertation study defines and develops the sales climate construct, examines whether it has incremental effects on sales and customer satisfaction beyond those of formal controls, and investigates whether a sales climate makes formal salesforce controls more or less effective. This study amalgamates two important strategic concepts, i.e. climate and control, and in the process, provides valuable insights for both academicians and managers.

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**APPENDIX**

**Figure 1: Incremental Effects of Sales Climate dimensions on Performance metrics.**

