THE IMPACT OF CUSTOMER EXPECTATIONS

ON SERVICE EMPLOYEES

By

HARLAN TITUS BEVERLY

Bachelor of Science in Electrical and Computer
Engineering
Ohio Northern University
Ada, Ohio
1999

Master of Arts in Business Administration
The University of Texas at Austin
Austin, Texas
2005

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Graduate College of the
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Dissertation Approved:

Dr. Tom Brown
_____
Dissertation Adviser

Dr. Craig Wallace
_____

Dr. Aaron Hill
_____

Dr. Alex Zablah
_____

Name: Harlan Titus Beverly

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Abstract: This dissertation introduces the concept of customer expectations as a group-level construct impacting employee outcomes such as satisfaction and turnover. In addition, a new construct, Expectation Management Behaviors, is theorized and empirically tested as a means of employee coping with customers with high expectations. The author finds no evidence linking group-level customer expectations to job stress or other outcomes. Evidence is, however, provided that lends support for Expectation Management Behaviors as a driver of service employee job satisfaction and job performance, especially when working in a more structurally empowered culture.

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CHAPTER I

INTRODUCTION

A front-line employee (FLE) is an employee who has contact with customers in a service setting. Imagine, for example, being an FLE and working at a low-priced fast-food chain where the customers keep coming in expecting a gourmet service experience. This scenario is not very likely because fast-food chains use price, environment, and advertising (Kopalle & Lehmann, 2006) to construct brands that customers recognize as not likely to be a gourmet experience. Customers at a fancy steakhouse, however, are likely to have these kinds of high expectations because cloth napkins, waiters in suits, and tables with candles all help to advertise a high service quality environment. In some cases, customers may not know what to expect. For example, in a chiropractic office, customers may not understand the brand or the service very well and thus have a wide variety of service expectations and experiences (Crowther, 2014). In environments with some uncertainty about expectations, there will likely be both customers with high and low expectations for their service experience. Those expectations may be unfounded and the service quality may not actually be as high or low as they expect. Imagine customers walking in day after day with high expectations, such as being completely healed of their problems in a single visit. Day after day, being unable to meet those unreasonably high

expectations have a draining effect on the FLE. The purpose of this research is to determine whether the high expectations of customers as a group have an effect on FLEs and whether anything can be done about it.

Gap in Knowledge

Expectations have long been a part of the theory of service marketing. Indeed, service quality itself has been defined as a disconfirmation of the expectations that customers have (Zeithaml, Parasuraman, & Berry, 1985; Brady and Cronin 2001). However, the idea that the satisfaction of customers plays a role in the satisfaction of employees has only recently become an area of interest (Frey, Bayon, & Totzek, 2013). Tangential evidence shows that customer contact time does moderate the relationship between FLEs' customer orientation (CO) and their job satisfaction (Donavan, Brown, & Mowen, 2004), implying that there must be something about interactions with customers that affects job outcomes. Building on this idea, this research seeks to show empirically how customer expectations, as a group-level construct, directly affects employee outcomes such as job satisfaction.

Contribution to the Literature

This research makes several contributions to theory. Building on Job-Demands Resources theory (JD/R: Demerouti, Bakker, Nechreiner, & Schaufeli, 2001), this research will establish empirically that customer expectations, as a group-level construct, exert a job demand on individual FLEs, ultimately leading to job dissatisfaction. Following calls for greater attention to group-level phenomena in managerial settings (e.g., Bliese, Chan, & Ployhart, 2007), one contribution of this research is its definition and use of a new group-level construct called group-level customer expectations.

In addition, this research adds to our knowledge of the customer orientation of service workers (Brown, Mowen, Donavan, & Licata, 2002). I demonstrate that FLE customer orientation enhances the stress that workers feel from group-level customer expectations as a job demand. At the same time, FLE CO causes employees to take actions that ultimately act as job resources to counteract some of the effects of the job stress brought on by group-level customer expectations. Indeed, there are specific calls for research to fill in the gaps of how the "chain of effects through which CO, as a work value, influences the behaviors frontline employees exhibit in dyadic exchanges with customers" (Zablah, Franke, Brown, & Bartholomew, 2012: 37).

Another important theoretical contribution is the introduction to the literature of a new scale for an important activity in which front-line employees engage called expectation management behaviors. I posit that some FLEs are able to deal with high average customer expectations by helping customers to adjust their expectations to better match the likely service reality. The Theory of Cognitive Empathy (Barrett-Lennard, 1981) indicates that FLEs may detect a customer's expectations and may empathically resonate with those expectations. Knowing that those expectations may not be met, FLEs may feel higher levels of job stress. Some FLEs may then perform pro-social behaviors such as correcting incorrect expectations and complete a circle of cognitive empathy. Thus by helping others, FLEs help their own emotional states. Expectation Management Behavior is thus defined as the sensing and adjusting of the expectations of customers. Two of the phases of Cognitive Empathy, resonation and understanding, are employed as a theoretical underpinning of Expectation Management Behavior. This resonation and understanding can then lead some FLEs to perform the pro-social behavior of adjusting incorrect expectations (Eisenberg & Miller,

1987). This research seeks to establish that these pro-social behaviors work as a job resource by means of self-healing through the cognitive empathy of helping the customer, which ultimately leads to improved FLE job outcomes. The contribution to literature for this new construct is not only in its scale development, but also in establishing quantitatively its role as a job resource for FLEs to offset some of the job demands they encounter.

Contribution in Practice

For some people, interacting with customers can be stressful and cause them to be dissatisfied with their jobs (Donavan, Brown, & Mowen, 2004). Dissatisfaction with a job has been shown to lead to higher turnover (Williams & Hazer, 1986). This is important in practice because high turnover means replacing employees, training new employees, lost employee knowledge, and damaged morale, all of which can be very costly (Simons & Hinkin, 2001). In addition, unsatisfied employees in a service setting can also lead to poor employee performance, lowering overall service quality (Johnson, Nader, & Fornell 1996. This research is thus important in practice due to its cost-saving and potential bottom line impact.

Organization of the Dissertation

This dissertation is organized into five chapters, following the pattern of published research. Chapter 1 introduces the concepts and contributions to literature of this research. In Chapter 2, a literature review will summarize prior research in the areas of JD/R Theory, expectations, customer orientation, FLE job responses, and unit-level considerations. With these frameworks established, hypotheses will be developed and a complete model will be proposed for analysis. In Chapter 3, the research methodology will be discussed, including the research method, design, and sample. The data collection procedure will be discussed

along with all measures for the various constructs. The data analysis methods used in the analysis will then be discussed. Chapter 4 will present the results of the study and summary data. Chapter 5 will discuss the results and implications and conclude with further research ideas.

CHAPTER II

LITERATURE REVIEW

This chapter is divided into two primary sections. The first section presents the primary literature streams that form the foundation of this project; the second part presents conceptual development for the model I empirically test in my research.

The literature review is organized into five topic areas upon which this research is founded. First, I discuss the job demands and resources framework (Demerouti et al., 2001), in particular with respect to its consideration of job stress and job satisfaction. In addition, I will present the foundations and recent findings from the Theory of Cognitive Empathy (Barrett-Lennard, 1981), one of the key theories upon which this research is founded. Then I summarize the important role of customer expectations with respect to both customer outcomes and employee outcomes. Next, the concepts of customer orientation will be introduced along with an overview of recent research in that field. After that, I address several aspects of group-level and multilevel analysis, building on the idea that group-level customer expectations is a job demand that causes a form of job stress leading to job dissatisfaction.

The second section of this chapter contains the development of the conceptual model. In this section, I develop a number of specific hypotheses that will be empirically tested as part of this dissertation.

Theoretical Framework

Job Demands and Resources Theory and Job Stress

Employee job satisfaction is a complex thing, but one of the lenses that can help to understand and categorize its antecedents is that of the Job Demands and Resources theory (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Demerouti et al., 2001). Job Demands and Resources (JD/R) theory is the theory that some of the tasks employees perform exert demands of those employees that drain them of a kind of energy (Job Demands). In addition, the theory suggests that there are also other aspects of a job (job resources) that can build up an employee's tolerance for job demands. There are many forms of job resources, including personal attributes (Tremblay & Messervey, 2011), work environment (Bakker et al., 2007), and enjoyable job tasks (Crawford, LePine, & Rich, 2010). Finding a balance between job demands and job resources is unique to each individual (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007) and has a lot to do with that individual's personality traits. Some employees, for example, may have a higher tolerance for certain demands than others. Customer orientation as a psychological construct has been shown to act as a job resource for FLEs, directly improving job engagement and reducing job stress (Zablah et al., 2012).

When demands are not well balanced with resources, a given employee will build up job stress (Parker & DeCotiis, 1983) and/or burnout (Crawford et al., 2010). This job stress has been shown to cause negative job outcomes like lower job satisfaction, attrition (Zablah et

al., 2012; Harris, Artis, Walters, & Licata, 2006), and lower job performance (Bashir &

Ramay, 2010). Figure 1 illustrates the JD/R concept and shows how too many job demands

and not enough job resources may contribute to induced job stress/burnout and lowered work

engagement, both leading to decreases in desirable job outcomes. Figure 1 also shows how

more job resources and fewer job demands interact to improve work engagement and lower

job stress/burnout, leading to increases in desirable job outcomes.
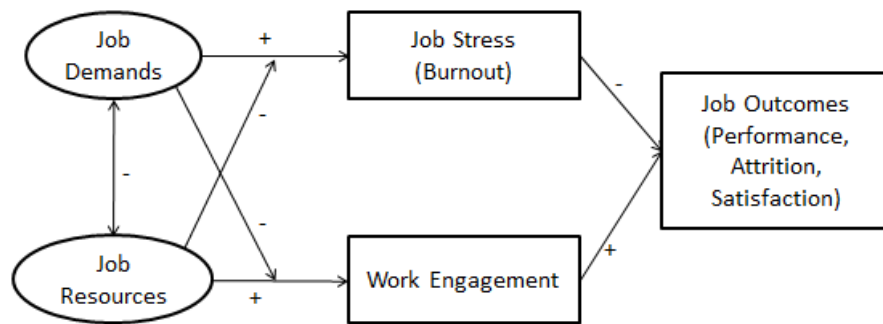
Figure 1. Job Demands and Resources Model, adapted from Bakker and Demerouti (2007)

Recent research using the JD/R framework suggests that some combinations of job

demands and resources allow employees to reach even higher levels of engagement (Bakker,

Tims, & Derks, 2012). This is particularly true of demands that are thought to be challenge

demands rather than hindrance demands (LePine, Podsakoff, & LePine, 2005). Having some

level of high challenge demands, in fact, is thought to make a job more rewarding and thus

more engaging, provided that there are enough job resources to counteract the job demands

(Van den Broeck, De Cuyper, De Witte, & Vansteenkiste, 2010). This line of thinking has

led to the concept of job crafting, where a sufficiently empowered employee redesigns his or

her job with a proper balance of demands and resources in mind, while taking into

consideration personal resources and psychological attributes (Tims & Bakker, 2010). Job

crafting has been shown to increase individuals' job satisfaction (Bakker et al., 2012) and most recently has been shown to also work at the team level, improving team average job satisfaction as well as individual job satisfaction and related outcomes (Tims, Bakker, Derks, & van Rhenen, 2013).

This research will seek to explore one potentially underexplored job demand: group-level customer expectations. The specific gap in knowledge that I try to fill is whether customers as a group exert a job demand on FLEs, leading to job stress and other negative job outcomes. In addition, I propose a potential job resource that might offset this job demand: expectation management behaviors. This research adds to JD/R theory not only in the new job demand and job resource proposed, but also at the conceptual level by showing that group-level phenomenon may be causing individual-level job demand effects.

Cognitive Empathy Theory

The Theory of Cognitive Empathy (Barrett-Lennard, 1981) describes a five-step repeating cycle of events whereby two (or more) individuals interact through an empathic cycle and affect each other's mental states. Figure 2 below shows how this five-step repeating process can create empathic resonance in both people. Empathic resonance starts when a first person (Person 1) expresses a mental state by some verbal or nonverbal cue (Step 1 - Transmission) and a second person (Person 2) observes or interacts with Person 1 and thus begins to resonate with understanding and to be able to take on the mental perspective of Person 1 (Step 2 - Resonation). Person 2 then expresses this understanding by some verbal or nonverbal cue to Person 1 (Step 3 - Understanding). Next (Step 4 - Reception), Person 1 detects that Person 2 is recognizing his/her perspective and is affected by Person 2's cognitive empathy by emotionally adjusting the original mental state

(hopefully for the better, but not necessarily so). Finally, Person 2 detects this shift in Person 1's original mental state and, through continued empathic understanding, changes his/her perspective further by Person 1's new (hopefully improved) emotional state (Step 5 - Re-resonation). This cycle has the opportunity to repeat back to step 1 if new information is expressed by Person 1 or if Person 1's mental state has not been reduced in intensity level such that Person 2 no longer needs to perform further perspective taking.
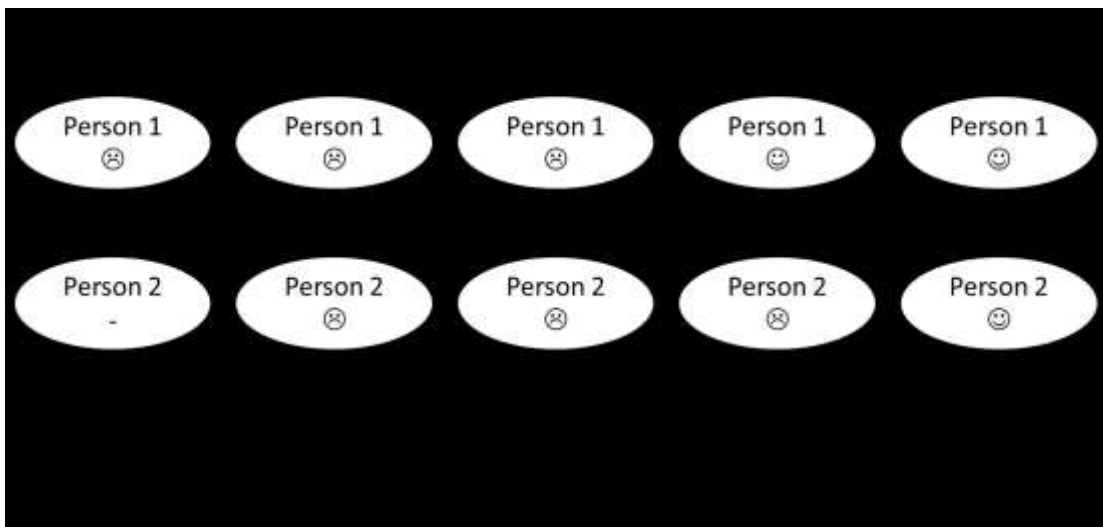
Figure 2. Theory of Cognitive Empathy, adapted from Barrett-Lennard 1981

The Theory of Cognitive Empathy has been used to help build understanding in a variety of applications. In the social service and psychological counseling setting, this theory has been used to spawn a number of treatments and techniques for helping patients and understanding the effects of patients on the psychologist (Gladstein, 1983). This has been generalized to include any generic health-care practitioner, where the cognitive empathy loop has been shown to be vitally important to patient (customer) satisfaction (Kim, 2004). Cognitive Empathy Theory has also been shown to improve selling success, a common FLE activity, through empathic listening (Comer & Drollinger, 1999) and adaptive selling

(Pettijohn, Pettijohn, Taylor, & Keillor, 2000). Most recently the Theory of Cognitive Empathy has been used as a foundation for customer need knowledge theory, where an employee's intrinsic empathic ability (and customer orientation) can be enhanced through training to further improve customer outcomes (Homburg, Wieseke, & Bornemann, 2009).

This research builds on the Theory of Cognitive Empathy to help explain why front-line employees might feel stress from high customer expectations and also feel better when they perform behaviors that benefit the customer. Specifically, this research adds to the knowledge about cognitive empathy by empirically showing that FLEs and customers engage in empathic exchanges that not only help customers' emotional states, but also, through empathic resonation and re-resonation, explain the actions of FLEs in a service setting. Although the Theory of Cognitive Empathy is typically used in a dyadic setting, this research will add to our understanding of cognitive empathy by examining the cumulative effects of interacting with numerous customers of a specific group (those of high expectation levels compared to those of lower expectation levels). The gap in knowledge this research seeks to fill is to empirically explain the actions of employees in response to the perceived mental states of customers in aggregate. This aggregated effect of customer expectations is explained in more detail next.

Expectations

From the earliest introduction of service marketing as a distinct sub-discipline of marketing, the idea of presenting customers with tangible evidence of a service, prior to their visit, to both entice and establish a basis of evaluation for the service has been at the forefront of service marketing (Shostack, 1977). Building on expectancy theory (Vroom, 1964), research shows that customers bring with them expectations organized as valence towards

possible outcomes and experiences (Van Eerde & Thierry, 1996). As these ideas came to be measured in service marketing, expectations of customers was defined as the valence in the minds of customers prior to their visits, brought about through a vast collection of evidence presented by word-of-mouth sources, by advertising and other marketing efforts, and by a person's life experience, including prior experience with the service or similar service (Zeithaml et al., 1985). Expectations have been categorized formally and in different ways into many areas, including expectations about the environment, the timeliness of service, the performance of employees, and more (Zeithaml, Berry, & Parasuraman, 1993; Brady & Cronin, 2001). Expectations were categorized into three main buckets: interaction quality, physical environment quality, and outcome quality (Brady & Cronin, 2001). Because services are more intangible and inconsistent in their delivery compared to products, the measuring of customer expectations and the disconfirmation of those expectations is often defined as the very definition of service quality (Parasuraman, Zeithaml, & Berry, 1988). Through repeated exposure of a customer to a specific service or service type, expectations change over time as that customer gets better at understanding the probabilities of the various service outcomes (Yi & La, 2004). Researchers have also established that service marketers should concern themselves with the expectations of their customers, by satisfying customers based on their expectations of service when possible or adjusting expectations if not possible (Boulding, Kalra, & Staelin, 1993). Providing high service quality through better confirmation of expectations has also been show to create better business outcomes (Anderson & Sullivan, 1993). Indeed, referral and return business are sometimes considered cornerstones of service marketing and are usually linked directly to customer satisfaction (Rust, Zahorik, & Keiningham, 1995).

While much is known about how customer expectations impact their behavior and related outcomes, far less is understood about how these expectations might impact other stakeholders such as employees. One self-report study discovered a correlation between ambiguous customer expectations (when employees cannot uncover what the customer expects) and employee emotional exhaustion (Karatepe, Haktanir, & Yorganci, 2010). Another self-report study (Song & Liu, 2010) found that disproportionate customer expectations (when customers demand service at a higher quality than is usually offered) were positively related to employee stress and emotional exhaustion. Both ambiguous customer expectations and disproportionate customer expectations have also been linked to employee burnout in a self-report study across a variety of service occupations (Dormann & Zapf, 2004). While these studies establish a link between customer expectations and employee well-being, they relied only on employee reported feelings. It may be that these self-reported feelings are referring to one or a few bad incidents that have simply stuck in employees' minds. What is needed is a direct measure of customer expectations aggregated to the group level so that individual incidents do not cloud the potential knowledge that can be gained about understanding how customer expectations (as a group-level concept) may be affecting employees. This research will add to knowledge by both measuring customer expectations directly and also considering the role that group-level customer expectations may be having on FLEs. The specific gap of knowledge this research seeks to fill is whether high group-level customer expectations themselves have an effect on FLE job outcomes such as job performance, attrition intention, and job satisfaction.

Customer Orientation

Front-line employees (FLEs) play a key role in the delivery of services (Fulford & Enz, 1995). According to the marketing concept, FLEs who use their knowledge and skills to adapt their approach and delivery of services to customers based on serving the customer's needs are thought to be performing customer-oriented behaviors (Saxe & Weitz, 1982). These customer-oriented behaviors are driven by an individual psychological trait, high customer orientation (Brown et al., 2002). Individuals with high customer orientation are more likely to engage in customer-oriented behaviors as compared to individuals with low customer orientation (Stock & Hoyer, 2005). Customer orientation is therefore a psychological trait that can lead employees to perform customer-orientated behaviors.

A unit-level customer-orientation climate, which was constructed as an aggregation of FLEs' perceptions of their managers' customer orientations, has been shown to moderate the effect of customer orientation on customer-oriented behaviors, so much so that customer orientation had virtually no effect in a low customer-orientation climate (Grizzle, Zablah, Brown, Mowen, & Lee, 2009). This research shows that while customer orientation as a psychological trait is important, there are clearly moderating factors that can change people's behavior despite their psychological predilections.

Customers have been shown to be more satisfied when approached in a customer-oriented way (Kamakura, Mittal, De Rosa, & Mazzon, 2002). Positive business outcomes such as repeat customers and increased profits have been shown to be a result of engaging customers in a customer-oriented way (Kamakura et al., 2002; Bowman & Narayandas, 2004). In addition to the positive business outcomes, customer-oriented employees are also more satisfied with their service jobs than their counterparts (Donavan et al., 2004; Grizzle et

al., 2009). Customer-oriented employees have also been shown to be higher performing employees based on supervisor ratings (Brown et al., 2002)

Researchers have uncovered many reasons why employees might not always perform customer-oriented behaviors (Pettijohn, Pettijohn, & Taylor, 2002). These behaviors, for example, rely on training, organizational commitment, and – of course – customer orientation (Pettijohn et al., 2002). However, a gap still exists in the literature for understanding the causal links between the psychological trait of customer orientation and the actual behaviors employees do as a result of this customer orientation (Zablah et al., 2012).

Empowerment

According to the concept of job design, the amount of autonomy that workers have to carry out their jobs has been shown to be essential to internally motivate employees (Hackman & Oldham, 1976). Building from autonomy, empowerment – specifically structural empowerment – is defined as the release or delegation of authority to lower levels of employees such that employees can perform their work more autonomously and effect decisions at lower levels, especially as it relates to the work itself (Leach, Wall, & Jackson, 2003). Psychological empowerment, on the other hand, is a psychological construct that represents an individual's tendency to feel self-empowered and self-capable and able to make an effect should the individual put forth the effort to perform an empowered act (Wallace, Johnson, Mathe, & Paul, 2011). Structural empowerment and psychological empowerment have been shown to have a link at the group level, where the work design aspect of empowerment leads to a feeling in the team of psychological empowerment (Mathieu, Gilson, & Ruddy, 2006). This paper uses the generic term "empowerment" to mean the

results of structural empowerment, or the work-design aspect of authority delegation and freedom to perform tasks in the way that workers feel best as measured by their feelings about their empowered state.

The potential organizational benefits of empowerment include greater levels of customer satisfaction (Hartline & Ferrell, 1996), higher employee job satisfaction (Fulfurd & Enz, 1995; Chan & Lam, 2011), and greater amounts of employee organizational citizenship behaviors (Jha, 2014; Auh, Menguc, & Jung, 2014). With all these potential benefits, one might wonder why managers would ever not want to empower their employees. Management's fear of empowerment comes from the potential moral hazard involved when delegating authority, specifically loss of control (Mills & Ungson, 2003). For example, empowered employees might choose to be lazy, use inefficient methods to perform tasks, or use poor judgement when making decisions, all of which might lower job performance outcomes (Mills & Ungson, 2003). Leaders must balance the potential benefits with their fears when choosing to empower employees to perform tasks in ways they feel are best and make decisions autonomously. Failure to structurally empower employees might not only lead to lower levels of psychological empowerment (Mathieu et al., 20016), but may also prevent employees from finding better methods to perform critical tasks such as satisfying customers using an individual needs-based approach (Hartline & Ferrell, 1996; Homburg et al., 2009). For example, employees who are not structurally empowered may be prevented from lowering a customer's expectations because of management's fear of potential loss of the customer. This paper builds on empowerment research by showing how an empowerment climate, as measured by the feelings of employees aggregated to the group level (described

next), helps to facilitate FLEs performance behaviors that not only help customers, but in so doing also improves the employee's job satisfaction and other outcomes.

Group-Level Considerations

The level of analysis for most psychology, marketing, and business research is usually kept to one of three levels: individual level such as customer or employee, group level such as department or firm, and macro level such as industry or country. Recently, researchers have begun looking at new methods and techniques to examine the interactions between different levels of analysis (Bliese et al., 2007). This research will seek to build on these methods and analyze a multilevel model focused at the individual level (employee), but with effects on these individuals coming in from unit-level constructs (firm).

There have been several prior analyses of multilevel effects regarding employees. First, employee and group (like work-group) interactions and leader emergence has been studied (Kozlowski & Chao, 2012). Evidence shows that a multilevel effect does occur in the variance of service team consensus (a climate for consensus) and that team's output and success (Ahearn, MacKenzie, Podsakoff, Mathieu, & Lam, 2010). In another study, team-member aggregated assessment of a leader's authenticity was significant in determining that team's creativity and innovativeness, where interestingly, the leader's self-reported authenticity was not significant (Cerne, Jaklic, & Skerlavaj, 2013). Similarly, high group-level employee empowerment was shown to cause increased service organizational citizenship behaviors (Auh et al., 2014). In addition to analyzing employee interactions, customers, and their satisfaction also have been used as a group-level construct to analyze employee and leader effectiveness (Schuh, Egold, & van Dick, 2012; Hunter, 2009).

Researchers have successfully used employee-group multilevel analysis as well as employee-customer interaction analysis to help explore several interesting relationships. Unlike these examples, however, this research will show how customers (as an aggregated group) might impact individual employees (e.g., customer-employee). This research adds to the knowledge of multilevel analysis by expanding the definition of a firm-level effect by considering customers, as a group, as being able to have an impact on individual employees as a firm-level group effect.

In all cases of multilevel analysis, theory must be identified to help explain why aggregation or the multilevel interaction should exist (Bliese et al., 2007). First, the use of aggregation to construct a higher-level construct has been fairly well recognized as a valid method if performed in one of two forms: aggregation by variance (Ahearn et al., 2010) and aggregation by average (Auh et al., 2014). Following the example from Auh et al. (2014), I will aggregate individual employee's assessment of empowerment climate by average of the group to form Group Level Empowerment Climate. This aggregation makes logical sense because if the group itself all individually reports a high empowerment climate, that group by definition believes it has a high empowerment climate. In addition, it also makes sense that a group, led by the same group management, might share homogeneity of feelings about empowerment, given that the same management interacts with the group and likely designs jobs to be structurally empowered leading to feelings of empowerment.

For an FLE who works in a single location, the geographic constraints of that location are likely to cause some homogeneity of customers. For example, a location situated in an affluent neighborhood might result in more affluent customers on average looking for services at that location. Similarly, commonalities about customers may exist due to

similarities in race, age, and other factors. In addition to demographic factors, the location itself may elicit some common modes of thinking for customers. For example, a location situated near other high-end businesses may make the location seem high end. Similarly, a location that looks run-down and old may seem low-end. These commonalities of customers, whether by demographics, location, or some other factor, may then lead to some commonality of expectations. For example, an older run-down location in a poor neighborhood may lead customers to have low expectations. Alternatively, a newer location near other high-quality businesses, in a wealthy neighborhood, may lead customers to have high expectations. Aggregation of individual customer expectations by averaging the individual customer expectations of all customers of a specific location is therefore logically sound. This research seeks to fill a gap in knowledge about customer expectations by averaging them at the unit level and testing hypotheses based on the aggregated effect on individual FLEs. Specifically I hope to show that the empathic response of an FLE to high customer expectations has a causal effect on that employee's stress and ultimate job performance and job satisfaction.

Hypothesis Development

The Effects of Unit-Level Customer Expectations

Ambiguous customer expectations and disproportionate customer expectations have been previously linked to employee burnout (Dormann & Zapf, 2004). High customer expectations can therefore be considered a job demand (Demerouti et al., 2001) that draws down from an employee's job resources. The more customers with high expectations, the more this job demand would affect an employee. Customers who engage at service in one location will be different than customers who engage in service at a different location. The

demographics (age, income, etc.) of people who live in one location often have averages that are very different than people who live in other locations, and these demographic differences can result in customers with different average expectation levels (Galster, Andersson, & Musterd, 2010). In addition, the location itself may elicit variation in expectation levels by customers. For example one location may be located next to businesses that are older or more run-down than the businesses of a location that might have nicer businesses operating next to it. All these factors mean that it is therefore logical to expect that customers of one location may have higher average expectations than customers of a different location. This averaging of expectations from the customer level aggregated up to the unit (location) level is a common approach used by researchers when aggregating individual-level measures to unit-level constructs (Grizzle et al., 2009; Auh et al., 2014). As a result, the averaging of a unit's (location's) customers' individual expectation measures to form the new construct, group-level customer expectations, is justified. According to JD/R Theory, high job demands have been shown to lead to job stress and burnout (Crawford et al., 2010). Since a given location is likely to have some homogeneity in customer expectations, one location will have higher group-level customer expectations than another, resulting in greater job demand and therefore leading to more job stress.

H1: Group-level customer expectations will exert a positive influence on job stress.

Based on Cognitive Empathy Theory, customer-oriented employees are more likely to care about customers and as such are likely to empathize with their plight (Barrett-Lennard, 1981). Therefore, the presence of something that is or may potentially cause a negative emotional state in a customer may cause a similar negative emotional state in the employee. Negative emotions and general worry about customers' potentially bad experiences can lead

to job stress (Parker & Decotiis, 1983). Because employees who are customer oriented care more about customers in general, they are likely to experience higher levels of job stress when customers who, as a group, consistently come in with high expectations. As a result, when group-level customer expectations exert a positive influence on job stress, that stress is even stronger for workers who have higher levels of customer orientation.

H2: The positive influence of group-level customer expectations on job stress is stronger when FLE customer orientation is higher than when FLE customer orientation is lower.

Prior research shows that high levels of job stress leads to job dissatisfaction (Harris et al., 2006). Job stress is thus expected to be negatively related to job satisfaction.

H3: Job stress will exert a negative influence on job satisfaction.

Low job satisfaction has been previously connected to job turnover metrics such as attrition (Williams & Hazer, 1986). In the context of JD/R Theory, job demands have been shown to lead to "burnout," which itself has been shown to have strong correlations to job turnover (Crawford et al., 2010). Direct correlations between job dissatisfaction and turnover intent have also been demonstrated (Harris et al., 2006). Job satisfaction is thus expected to be negatively related to attrition intention (turnover intent) because employees who are not satisfied will look to change their situations and look for new jobs, and employees who are satisfied are likely to have a low attrition intention.

H4: Job satisfaction will exert a negative influence on attrition intention.

The Role of Expectation Management Behavior

I define expectation management behavior as the actions of an employee to sense a customer's expectations and then attempt to adjust or correct those expectations. These

actions correspond to two phases of the Theory of Cognitive Empathy, resonation and understanding (Barrett-Lennard, 1981). According to the theory, individuals who interact, such as an FLE and a customer, can transmit and receive emotional states from one another in a cycle of empathy where improving (or hurting) each other's emotional states also affects their own emotional state, and so on. In this way, an FLE may sense the emotional state of a customer with high expectations. Then, by seeking to adjust these high expectations, the FLE improves his/her own emotional resonance. Not all employees will equally seek to sense and adjust customer expectations, however. The sensing half of customer expectation management behaviors is very similar to the idea of customer need knowledge (Homburg et al., 2009). Customer need knowledge has been defined as the knowledge that an employee might collect in order to better understand the needs of a customer (Homburg et al., 2009). Employees' customer orientation has been shown to directly affect FLEs' desire and ability to collect customer need knowledge and also to moderate the effectiveness of training customer need knowledge collection skills to employees (Homburg et al., 2009). Because needs are a type of expectations (Zeithaml et al., 1993; Wilder, Collier, & Barnes, 2014), the sensing of needs is very similar to the sensing of expectations. It is therefore logical to predict that customer-oriented employees are more likely to engage in overall expectation management behaviors. These customer-oriented employees likely care more about customers and are thus more willing to put forth efforts to sense customers' expectations (including needs), adapt the service if they can to meet those expectations (Homburg et al., 2009; Wilder et al., 2014), or adjust customers' expectations to match service realities if the expectations are not attainable.

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H5: Customer orientation will exert a positive influence on expectation management behavior.

Employees of the same group (e.g., location) who all similarly rate their environment as being highly empowered develop a consensus that their location is high in empowerment. The consensus composition model (Chan, 1998) therefore argues that for purposes of the group-level actualized construct, when employees have a consensus (or average) that there is high empowerment, this justifies the use of aggregation by average as a higher-level construct. An additive composition model is also justified by theory, simply stating that the average of the employee's rated empowerment is – by definition – the group-level empowerment. In either composition model, the group-level construct of "empowerment climate" is defined as the average empowerment of a group of employees at a common location. Other researchers have used this same aggregation by average technique to define a customer-orientation climate (Grizzle et al., 2009). Empowerment is logically aggregated by average because it is likely that there exists a common management philosophy in an employee group. Since these employees are also at the same location physically, they frequently interact with each other and a common management structure.

Empowerment has been shown to be a great resource available to employees in the JD/R context (Tremblay & Messervey, 2011). Service Empowerment Theory, in particular, has shown that empowerment in a service setting can have a positive influence on job satisfaction (Fulfurd & Enz, 1995; Chan & Lam, 2011). Empowerment has also been shown to improve service quality for customers (Hartline & Ferrell, 1996). As discussed previously, prior research into customer need knowledge suggests that customer-oriented employees are more likely to develop skills to sense and adapt service to meet customer needs (Homburg et al.,

2009), including, for example, expectation management behaviors. In addition, employees who care about customer need satisfaction are more likely to engage in organizational citizenship behaviors (OCBs) (Donavan et al., 2004). Employees in a low empowerment climate, however, may be prevented from or feel unable to engage in OCBs such as expectation management behavior. Evidence suggests that empowerment climate is indeed a moderator of OCBs (Jha, 2014). A more empowered climate, therefore, will logically strengthen the positive relationship between customer orientation and OCBs such as expectation management behaviors.

H6: The positive influence of customer orientation on expectation management behaviors is stronger when empowerment climate is higher than when empowerment climate is lower.

According to JD/R Theory, employees under high job demands must learn to cope with these demands by drawing upon their job resources (Bakker et al., 2007). Although existing research does help explain why expectation management should better satisfy customers (Boulding et al., 1993; Homburg et al., 2009), a gap in knowledge exists to explain why employees might also derive any benefit from the exchange.

I seek to fill this gap in knowledge by building on the Theory of Cognitive Empathy (Barrett-Lennard, 1981) to help explain why employees might derive personal benefits (as job resources) by managing customer expectations. Employees who seek to please customers by managing expectations (Boulding et al., 1993) are likely using their empathic skills to detect these customer expectations (Homburg et al., 2009). Based on the Theory of Cognitive Empathy (Barrett-Lennard, 1981), these employees are sharing emotion states of customers and also benefiting from interaction with them. This empathy likely springs from an

employee's customer orientation (see prior hypothesis) as well as that employee's personal experience as a customer. This empathic response is thus satisfied. Employees' emotion states are improved when they put forth effort to sense and adjust the expectations of customers such that customer expectations are more in line with the service likely to be delivered. When employees perform this adjustment, the empathic cycle (Barrett-Lennard, 1981) comes full circle. Employees can feel better about the plight of customers, regardless of the actual results of the service delivered. Prior research shows that service workers who are customer oriented experience satisfaction when getting to serve customers (Donavan et al., 2004). The empathic cycle explains that helping others also helps one's own emotional state (Barrett-Lennard, 1981), and customer-oriented employees have been shown to have increased job satisfaction when serving (e.g., helping) customers (Donavan et al., 2004), Thus it is logical to expect that expectation management behaviors create a job resource that contributes to overall employee job satisfaction.

H7: Expectation management behavior will exert a positive influence on job satisfaction.

Finally, when employees take the time to do expectation management behaviors, customers should be more satisfied (Boulding et al., 1993). Prior evidence confirms that customer need knowledge activities do correlate highly with more satisfied customers (Homburg et al., 2009). In addition, expectation disconfirmation theory shows that expectations that are too high as compared to actual service delivery will result in overall lower customer satisfaction and lower job performance ratings (Zeithaml et al., 1993). Expectation disconfirmation theory also demonstrates that lowering expectations will create an even larger gap between perceived performance and expected performance, thereby increasing customer satisfaction and job performance (Brady & Cronin, 2001). Because it is

one of the primary purposes of service employees to create satisfied customers, employees who engage in expectation management behaviors should be both self-rated as better performers and also rated by customers as having performed better.

H8: Expectation management behaviors will exert a positive influence on job performance

In addition to the items in the hypotheses modeled in Figure 3, several control variables will also be assessed in order to both verify lack of bias in responses and also to determine whether certain alternative explanations for results may be biasing the analysis. Several alternative hypotheses will also be checked using the control variables to confirm parsimony of the hypotheses. A full list of the control variables being collected and tested is shown in Table 3.
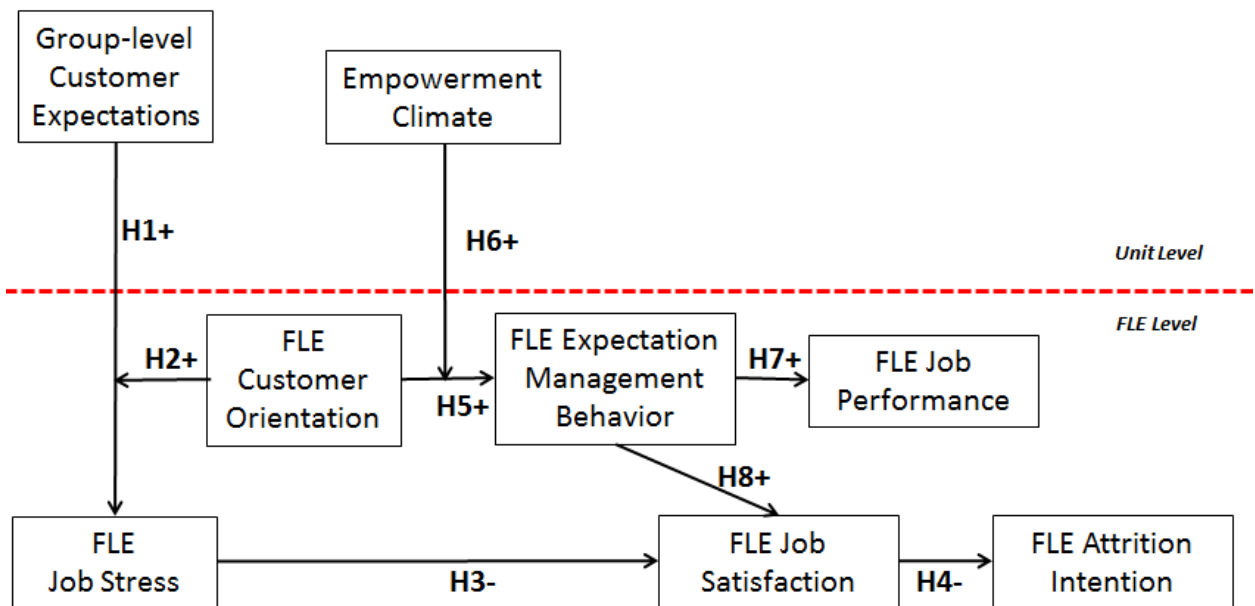
Figure 3. Hypothesized Model

CHAPTER III

METHODOLOGY

The purpose of this chapter is to describe the research methods, sample, data collection, and measures to be used in this dissertation. This chapter first describes the overall method and design of the quantitative analysis of the model proposed in the prior chapter. Next, the sample and process for data collection will be discussed. Then, each measure and all control variables will be discussed, including the source of scale for each measure. Finally, the data analysis and hypothesis testing plan will be described.

Method and Design

The method that is used to test the hypotheses developed in Chapter 2 is advanced structural equation modeling of data collected for the proposed model and control variables using established data analysis methods (Kline, 2001) and the mPlus 7.3 software package. The design of the study uses nesting in order to create group-level data for analysis. Specifically, three simultaneous surveys are used to collect nested data in a large number of different locations, and the data is grouped by survey and location. First, an employee survey will be given to every employee at a given location and kept grouped by location. Next, a pre-encounter customer survey will be given to every customer at each location, again grouped by location. Finally, a post-encounter customer survey will

be given to every customer at each location, similarly tied to that location. These post-encounter surveys are coded so that a specific customer, while still being anonymous, is tied to his or her specific pre-encounter survey. Each customer group and employee group will have the same group ID number for analysis purposes. Using this nested research design approach allows for multilevel analysis to be performed: testing interactions of customers (as a group) to employees (as individuals).

Sample and Data Collection Procedure

The sample used for this dissertation is from a collection of 40 chiropractic offices operating in a chain within 200 miles from each other in the midwestern United States. Because the chiropractic offices are spaced geographically apart, they attract customers from different customer pools. I hope that these pools of customers, as well as differences in the locations of the offices, will create a situation where customers as a group, at different locations, will have different levels of expectations, which is essential to enable the testing of the multilevel hypotheses. Each office staffs between 3 and 10 employees, allowing for 40 groups of employees and as many as 250 employee responses in total. In addition a typical office will see between 20 and 100 patients (customers) per month. However, since patients will be asked to participate in two surveys (a pre-visit survey and a post-visit survey) at the time of their visit, a somewhat low response rate is expected. To compensate for this low expected response rate, the data collection period for the patients is designed to be over a period of several months. If the response rate were 100%, this could be as many as 4,800 pre-and-post visit survey pairs. However, since the response rate is likely to be much lower than 100%, and multilevel/group analysis is not statistically advisable for less than three samples per group (Hox & Maas, 2001), a minimum of five matched pairs of customer data per office

is established as a minimum threshold for inclusion of the office in the analysis. It is thus expected that there will be a minimum of 200 customer matched survey responses, but likely many more.

The data collection procedure follows the established research protocols and policies of Oklahoma State University, and has been approved by the research review board (Appendix C). First, the chiropractic chain's assistance will be requested for data collection and using approved recruitment formats (Appendix A). Recruitment of employee participation will be by email request, followed up by delivery of a tablet computing device (paid for by the chiropractic chain for its own uses and purposes, here used for data entry of surveys). Each tablet computing device will be pre-loaded with three unique survey links per office (one employee survey link, one pre-visit customer survey link, and one post-visit customer survey link), hosted on the Qualtrics online survey system. Since each office will have only tablet data entry devices that contain unique links for that specific office, all data will be automatically coded as tied to a specific office. Having received the recruitment email, employees may then use the tablet devices to take the employee survey at their leisure and in complete privacy. In accordance with ethical research standards, no identifying information is requested and all data is kept private and confidential inside the Qualtrics system and on researcher's computers. The tablets will also be used as survey-taking devices for customers who choose to participate in the study. Recruitment of customers is done by each office's staff employees who are given an IRB-approved recruitment pitch to be delivered verbally to customers. In all three cases, customers will be presented with IRB-approved consent forms, built in to the surveys themselves and presented on the tablets to the survey taker before they continue with the survey. In order to tie customer pre-visit data to customer post-visit data, a

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combination of three identifiers are used to disambiguate and match customer data. First, the customer's year of birth is asked on both the pre- and post-survey, with a reminder to the survey taker that this will be used to code their surveys together. Next, each survey is also coded to a specific office. Finally, each survey has a time stamp of start and complete times. These three items (location, time, and age) will be matched such that a customer survey pair is one that is at the same location, and the same age, and within a maximum of two hours of each other. In the rare but possible case of customers with the same age at nearly the same time (within the same one-hour period), both data points are discarded since they cannot be matched. As part of the data analysis, any unmatched customer data that violates one of the constraints above will be discarded. The entire data collection phase is expected to take more than three months from start.

Measures

The measures used to represent variables in the proposed models and hypotheses are here described as three sections. First, the development of a new variable and scale being used as part of this research is discussed (Expectation Management Behaviors). Next, there will be a discussion of the remaining constructs that are part of the hypothesized model, all drawn from prior validated scales. Finally, various control variables and their measures will be discussed.

I introduce the new concept of Expectation Management Behaviors as one of the potential linkages between customer orientation and the behaviors of employees (Zablah et al., 2012). However, as with any new measure, a validated scale is needed. I will develop this scale using data collected also as part of the analysis. Expectation Management Behavior is defined as the presence or absence of employees performing (or thinking that they are

performing) the sensing and adjusting of a customer's expectations prior to their service

fulfillment. This idea comes from strong theory on both expectation management as a desired

business activity (Boulding et al., 1993) and Cognitive Empathy Theory (Barrett-Lennard,

1981), which puts forth the motivation and reasoning for why employees might feel good by

doing these behaviors. The theoretical foundation for the Expectation Management Behavior

concept is described more fully in Chapter 2. First, an exploratory factor analysis (EFA) will

be performed on the data in order to test for reliability and the number of constructs being

measured by the six items. Next, because this concept is founded in strong theory, a

confirmatory factor analysis (CFA) is proposed based on items that are created from its

definitional nature. A set of expectation-sensing items is proposed (see Table 1) based on

inspiration from Customer Need Knowledge theory (Homburg et al., 2009). An additional set

of expectation-setting items is proposed here (Table 2) inspired by the Boulding et al. (1993)

Expectation Management concept and also built on the expectation sensing items. The

Expectation Management Behavior construct is thus the presence (or absence) of these items

or the thought (in the mind of the employee) that these items are performed. Through a

process of interaction with other subject matter experts, these items have been reduced to six

items, three each for sensing and setting behaviors. The CFA analysis will be performed on

these six items for the employee data set.

The proposed model in Figure 3 shows eight variables and their hypothesized effects.

Expectation Management Behaviors have already been described. The remaining seven

variables (Group-level Customer Expectations, Empowerment Climate, Customer

Orientation, Job Stress, Job Performance, Job Satisfaction, and Attrition Intention) use items

from scales validated in prior research. Table 2 shows each of the remaining six variables and

their respective sources of scale items. Appendix B shows the actual surveys, including the

items for each of these six variables.

Table 1
Expectation Management Behaviors Scale Items

	Item
Sensing 1	I usually am able to sense exactly what customers need without them asking.
Sensing 2	I actively try to get customers to tell me what their needs are.
Sensing 3	Customers open up to me about their specific problems prior to treatment.
Sensing 4	It is easy for me to understand what the customer really wants even if they cannot say it right.
Sensing 5	I realize what customers mean even when they have difficulty in saying it.
Setting 1	I correct clients who incorrectly think all their problems will be solved in one visit.
Setting 2	I proactively make sure the client knows what will likely happen during their visit.
Setting 3	I help clients understand the kind of results they can expect from their visit.
Setting 4	I help clients understand that lifestyle changes may also be needed in addition to their treatment.

Note. Seven-Point Likert scale: 1 = Strongly Disagree to 7 = Strongly Agree

Table 2
Other Variables Used in Model with Source of Items

Variable	Source of Items
Customer Orientation	Brown et al., 2002
Job Satisfaction	Donovan et al., 2004
Job Performance	Behrman & Perreault, 1982
Job Stress	Parker & DeCotiis, 1983
Employee Retention Intention	Frey et al., 2013
Service Empowerment Climate	Chan & Lam, 2011
Customer Expectations	Brady & Cronin, 2001; Parasuraman et al., 1988

Customer Expectations will be measured via the pre-visit survey and then grouped by

office location. In order to determine whether group-level analysis is justified for customer

expectations, Hierarchical Linear Modeling (HLM) will be used on a simple model of

customer expectations as an independent variable (IV) leading to job stress as the dependent

variable. HLM will be used to determine how much variation might be attributable to group-

level phenomena by computing the Interclass Correlation Coefficient (ICC) and performing

an F-test on the critical value to determine statistical significance. For purposes of the group-

level analysis, the average expectation level of the groups will be assessed in the moderation hypothesis tests. Empowerment climate will be measured at the employee level, but an average level per group (location) will be used as the potential moderating variable in the model. Similar to customer expectations, HLM will be used to compute ICC and significance of the group-level effects of empowerment acting as an IV on Expectation Management Behavior. Job Performance is a self-report item and also deserves some special attention. While a self-report metric for performance is not as good as an independent performance review, self-reports for job performance have been used in prior research (Behrman & Perreault, 1982). I will use previously validated items (Behrman & Perreault, 1982) to help ensure validity for the job-performance self-report. The remaining items are neither multilevel nor complex and, being straightforward in their sample and use, are not discussed here.

The survey instruments shown in Appendix B contain a large number of other variables and items being collected. Each of these other variables could be useful as control variables (e.g., age, new patient, gender, and role). The other variables could also be used to test alternative hypotheses as part of the structural equation model (SEM) process. Additionally, some variables have been added in order to test another set of research ideas for future analysis (for example, customer effects and outcomes). Finally, these variables could also be of use to help show discriminant and convergent validity of the new construct (Expectation Management Behaviors). Table 3 below shows a list of all these control variables, alternative idea variables, future analysis variables, and their sources where appropriate.

Table 3

Control Variables with Source of Items

Variable	Source of Items
Customer Contact Time	Donavan et al., 2004
Gender	N/A
Age Group	N/A
Job Role	N/A
First Customer Visit	N/A
Job Fit	Donavan et al., 2004
Customer Satisfaction	Brown & Kirmani, 1999
Refer & Return Likelihood	Brown et al., 2005
Anticipatory Service Quality	Brown & Kirmani, 1999

Data Analysis and Hypotheses Testing Plan

The purpose of this section is to describe the data analysis techniques to be used in the analysis section. First, the process for EFA and CFA will be presented. Next, the hypothesis testing method will be proposed as well as tools and techniques identified.

In order to establish reliability and validity of the constructs, a number of calculations will be performed on both new constructs. First, an EFA on the scale for Expectation Management Behaviors will be used to assess reliability and identify whether one, two, or more factors is measured by the scale. Next, a simple CFA calculation will be used to assess the reliability of all the constructs. This will be done across the entire employee dataset (not by groups). This will be done using path analysis as analyzed using SAS 9.3 to establish unstandardized path coefficients that are above 0.7. In addition JMP 10 will be used to calculate Cronbach's alpha levels above 0.9. Since this is a first CFA assessment, factors that fail to load may be removed in order to achieve the desired CFA results as long as there are at least two items that remain and fit into the CFA parameters. Lastly, a CFA will be performed in combination with a CFA of other constructs in order to establish discriminant validity in a nomological network.

The model and hypotheses will be tested using SEM in a multiple-step process as defined by Kline (2001). First, the SEM will be shown to be identified. Next a CFA across all data will be shown to demonstrate discriminant validity between the constructs and detect any potential errors or multiple correlation problems. Then a model featuring only the employee-level data will be constructed and tested to demonstrate the employee-level paths. Hypotheses at this level will be tested using significance of the path coefficients as well as the model-fit statistics such as comparative fit index (CFI), standardized root mean square residual (SRMR), and others. Next a multilevel path analysis will be performed utilizing mean scores of items as variables. Finally, the group-level analysis will be performed using the techniques described by Hox and Maas (001) to demonstrate the significance of the group-level effects. This group-level moderation analysis will be performed using mPlus 7.3, whereas all other analysis will be done in SAS 9.3. This overall model with group-level moderation will then be assessed for fit and compared to a null model to show added explanatory power. All hypotheses will be tested as significant if the path is significant at the 0.10 level and the unstandardized path coefficient is above 0.1 (meaning it explains at least 10% of the variance of the subsequent endogenous variable).

CHAPTER IV

FINDINGS

The analysis and results presented here are organized according to the Kline (2001) method of presenting EFA, CFA, Path Analysis, and Structural Equation Modeling results. First, an explanation of data grooming is provided, followed by an EFA on the new concept of Expectation Management Behaviors; subsequent factor analysis reduces the latent variable into its mathematical optimized while still theoretically sound items. Second, a CFA is presented across employee-level data, and items are reduced based on their reliability and validity. Then a CFA analysis is performed on an explicit two-level model (employee level and unit/store level). Two employee-only level models are presented and tested using structural equation modeling in order to help establish a baseline of model fit without introducing the multilevel elements. Next, an explanation of the aggregation methods of the unit-level data is provided. Finally, a multilevel path analysis of the hypothesized model is performed using a random-slopes hypothesis per the hypothesized multi-level interactions. All hypotheses are then tested using the results of the multilevel path analysis

.

EFA and CFA – Employee Level

Before any EFA, CFA, or analysis was performed, the data were examined looking for several specific anomalies that might indicate an invalid data point. First, the time-delta for an individual to complete the employee survey was computed based on start and finish times and compared to the fastest time that I could complete the survey myself just skimming the survey and filling out the form as fast as possible (two minutes). Out of 146, three were identified as being completed too quickly to be valid data points. Next, the group-level data for one of the locations was found to be unavailable. As a result, employee items were removed that came from that group/location, resulting in the removal of three employee data points. Finally, an average of each employee's Likert responses for all questions was calculated and compared to the maximum (7.0), and any responses with an average of 6.9 or higher were removed (three additional data points). These responses were considered to be extreme outliers because the user answered "max" on almost every question, which skews the data and is likely an invalid survey response. In other words, it is unlikely that an employee is fully maximally stressed, maximally customer oriented, and also maximally satisfied and maximally performing. Thus, from a sample of 146, we were left with 137 useable employee-level data points with matched group-level data.

As discussed in prior chapters, Expectation Management Behavior was expected to consist of first sensing and then setting or adjusting a customer's expectations of service. Ten items were created to encompass the acts of sensing and setting customer expectations. EFA analysis showed that it is likely that two separate ideas are being represented here since there are two eigenvalues at one or higher (Table 4). Fit statistics for a one-factor model were poor with a CFI of only 0.634 and an SRMR of 0.1116. A two-factor model had a better fit with

CFI of 0.849 and SRMR of 0.058. Factor loadings for a two-factor model showed clearly that

the sensing and setting components are too dissimilar to be considered the same thing, and

thus the two factors should be separated (see Table 5). The expectation setting component is

the more theoretically important behavior because its active nature is hypothesized to elicit

the customer response that in turn is hypothesized to influence employee satisfaction. As a

result, Expectation Management Behavior referred from here on is just the one factor −

expectation setting component − consisting of the five items identified as setting behaviors

EXPSET1 to EXPSET5. Since only the expectation setting items are being used in the

subsequent modeling and not the expectation sensing items, the cross-loadings identified in

Table 5 are not of concern. Some of the items may not be loading well in general, however,

and the next section on CFA will show how items were analyzed and reduced.

Table 4
Eigenvalues for Expectation Management Behaviors EFA Analysis

Factors	Eigenvalue
1	4.802
2	1.638
3	0.974
4	0.796
5	0.714
6	0.571
7	0.414
8	0.382
9	0.307
10	0.148

A CFA of employee-level data was performed to assess the reliability, convergent validity,

and discriminant validity of the measures of the items and constructs used in the

hypothesized model. Customer Orientation (CUSTORIE), Job Satisfaction (JOBSAT), Job

Performance (JOBPERF), Retention Intention (RETAIN), Job Stress (JSTRESS), and

Expectation Management Behavior (as discussed above, only the Expectation Setting

Table 5

Factor Loadings for a Two-Factor Model EFA Analysis

Item	Factor 1	Factor 2
EXPSENS1	0.757	0.425
EXPSENS2	0.853	0.391
EXPSENS3	0.849	0.291
EXPSENS4	0.566	0.488
EXPSENS5	0.478	0.364
EXPSET1	0.259	0.490
EXPSET2	0.279	0.530
EXPSET3	0.355	0.774
EXPSET4	0.225	0.784
EXPSET5	0.341	0.539

Component) are the full set of employee-level data analyzed in the CFA. The model is identified using the two-indicator rule (Kline, 2001), which explains that any CFA model with two or more indicators per factor and two or more factors is automatically identified. The model fit using all measured items is not ideal with a CFI of 0.867 (which is below 0.9). Of more concern is the problem that many of the items had poor loadings for their respective factors. Table 6 shows the standardized factor loadings, and several items labeled with an asterisk are shown as being potentially bad items for reliability purposes. In addition to these potentially poor loading items, several other items were considered for removal and marked in Table 6 with an asterisk as well. These items were lower than the other items and not strictly necessary, resulting in at least three remaining items per factor in a respecified CFA model (Table 7).

The respecified CFA model showed a much better fit with a CFI of 0.923 and a SRMR of 0.067. Table 7 shows the final employee-level items and factors used in all subsequent analysis. To assess convergent validity, the average variance extracted was calculated using the average of the square of the standardized factor loadings for each item as it relates to the factor. Table 8 shows that all factors had a higher than 0.5 average variance extracted (AVE)

except for Job Performance (0.46). The Job Performance AVE was very close to 0.5,

however, and since the AVE test is stricter than other tests (Fornell & Larcker, 1981) and the

factor loadings are also all close to 0.7, the convergent validity of the scale is useable for this

analysis.

Table 6
Standardized Factor Loadings for CFA – Before Item Reduction

	Std. Estimate	S.E.	Est./S.E.	p
Customer Orientation				
CO1	0.802	0.033	24.135	.00
CO2	0.871	0.024	36.696	.00
CO3	0.837	0.029	29.160	.00
CO4	0.880	0.022	39.518	.00
CO1B	0.734 *	0.042	17.485	.00
CO2B	0.712 *	0.045	15.902	.00
CO3B	0.873	0.024	36.561	.00
CO4B	0.876	0.023	37.391	.00
Job Satisfaction				
JOBSAT1	0.486 *	0.071	6.808	.00
JOBSAT2	0.802	0.051	15.603	.00
JOBSAT3	0.636	0.068	9.297	.00
JOBSAT4	0.690	0.058	11.812	.00
Job Performance				
JOBPERF1	0.578 *	0.068	8.447	.00
JOBPERF2	0.632	0.065	9.677	.00
JOBPERF3	0.527 *	0.073	7.165	.00
JOBPERF4	0.810	0.049	16.430	.00
JOBPERF5	0.588	0.068	8.638	.00
Employee Retention				
RETAIN1	0.847	0.029	28.829	.00
RETAIN2	0.796	0.036	22.255	.00
RETAIN3	0.868	0.027	32.662	.00
RETAIN4	0.849	0.029	29.625	.00
Job Stress				
JSTRESS1	0.666 *	0.061	10.844	.00
JSTRESS2	0.743	0.055	13.560	.00
JSTRESS3	0.711	0.058	12.301	.00
JSTRESS4	0.774	0.051	15.310	.00
Expectation Management Behaviors				
EXPSET1	0.463 *	0.079	5.835	.00
EXPSET2	0.504	0.077	6.556	.00
EXPSET3	0.799	0.047	16.986	.00
EXPSET4	0.803	0.049	16.534	.00
EXPSET5	0.499 *	0.075	6.617	.00

*Note. A * in the Standardized Estimate column indicates an item whose estimate is so low that it should be considered for removal*

Table 7

Respecified Standardized Factor Loadings for CFA – After Item Reduction

	Std. Estimate	S.E.	Est./S.E.	p
Customer Orientation				
CO1	0.807	0.033	24.582	.00
CO2	0.864	0.025	34.558	.00
CO3	0.854	0.027	31.887	.00
CO4	0.894	0.021	43.121	.00
CO3B	0.863	0.026	33.207	.00
CO4B	0.873	0.025	35.486	.00
Job Satisfaction				
JOBSAT2	0.806	0.058	13.925	.00
JOBSAT3	0.641	0.073	8.761	.00
JOBSAT4	0.688	0.063	10.970	.00
Job Performance				
JOBPERF2	0.677	0.065	10.443	.00
JOBPERF4	0.725	0.061	11.871	.00
JOBPERF5	0.623	0.068	9.115	.00
Employee Retention				
RETAIN1	0.848	0.029	28.893	.00
RETAIN2	0.797	0.036	22.289	.00
RETAIN3	0.866	0.027	32.274	.00
RETAIN4	0.85	0.029	29.620	.00
Job Stress				
JSTRESS2	0.724	0.066	10.897	.00
JSTRESS3	0.653	0.062	10.513	.00
JSTRESS4	0.841	0.062	13.638	.00
Expectation Management Behaviors				
EXPSET2	0.445	0.079	5.628	.00
EXPSET3	0.840	0.056	14.899	.00
EXPSET4	0.793	0.057	13.809	.00

Table 8

AVE Values for Latent Variables

Variable	AVE
Customer Orientation	0.74
Job Satisfaction	0.51
Job Performance	0.46
Employee Retention	0.94
Job Stress	0.55
Expectation Mgmt Behaviors	0.51

Finally, in order to test for discriminant validity, the square of the interfactor correlations (shown in Table 9) was compared to the AVE of the factor. The method of determining discriminant validity by comparing AVE and square interfactor correlations has been shown to be better than only examining the correlations because it allows for an absolute comparison of the correlations as compared to the variance explained by the measure (Fornel & Larcker, 1981). Only RETAIN and JOBSAT had a higher square interfactor correlation versus AVE; this is somewhat expected as this relationship has been shown to be very strong in prior research (Williams & Hazer, 1986). Unfortunately, because the AVE is below the square interfactor correlation for REATAIN and JOBSAT, discriminant validity for these two variables cannot be established and the analysis of the proposed model involving the job satisfaction and retention path cannot be relied upon. Specifically, the hypothesis H4 in this model cannot be tested. In addition, any goodness of fit statistics for the model would not be valid. In order to mitigate this problem, the proceeding analysis is performed with two modifications. First, the analysis is performed as two models, one using the ultimate dependent variable of Job Performance, and the other using the ultimate dependent variable for Job Satisfaction. This allows all the analysis of the job performance path to be valid and testable, while isolating the problem of the other dependent variable model. Next, because the H4 hypothesis cannot be tested, the variable for Retention is dropped from analysis, allowing the remaining analysis to be completed and valid.

CFA – Multilevel (Group Level)

Three hypotheses in this dissertation involve multilevel data. First, H1 and H2 both involve group-level customer expectations. As described previously, customer expectations data was collected for each location (group-level is by office, which is distinguished as

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Table 9

Standardized Interfactor Correlations for CFA – After Item Reduction

	Std. Estimate	S.E.	Est./S.E.	p
Cust. Orientation with				
Job Satisfaction	0.342	0.095	3.614	0.000
Job Performance	0.454	0.088	5.178	0.000
Employee Retention	0.290	0.085	3.411	0.001
Job Stress	-0.115	0.100	-1.147	0.251
Expectation Mgmt Beh	0.289	0.091	3.189	0.001
Job Satisfaction with				
Job Performance	0.404	0.116	3.474	0.001
Employee Retention	0.921	0.050	18.331	0.000
Job Stress	-0.054	0.108	-0.503	0.615
Expectation Mgmt Beh	0.250	0.106	2.348	0.019
Job Performance with				
Employee Retention	0.431	0.091	4.746	0.000
Job Stress	-0.185	0.117	-1.588	0.112
Expectation Mgmt Beh	0.652	0.083	7.819	0.000
Employee Retention with				
Job Stress	-0.076	0.099	-0.763	0.445
Expectation Mgmt Beh	0.325	0.091	3.573	0.000
Job Stress with				
Expectation Mgmt Beh	-0.225	0.105	-2.142	0.032

offices in different locations), resulting in 714 customer data points across 40 office locations, a mean of 17 responses per office. In order to aggregate these data points to a group-level construct, averaging of responses by group was performed for each item used to measure customer expectations. Next, these computed group-means were inserted into the employee-level data by group, where an individual employee data point would get a new column with the indicated group-mean value for expectations inserted. This was repeated for each item of customer expectations. H6 also contained a group-level hypothesis, this time involving structural empowerment climate. Each employee answered items about his/her opinion of the structural empowerment climate, and these were aggregated by averaging each group's responses and inserting them as new columns in the employee dataset. What was left is the full employee data-set, with a group ID number for each employee and that group's averaged items for customer expectations and empowerment climate.

Because items were used to measure group-level customer expectations and empowerment climate, a multilevel CFA was justified to be calculated (Vandenberg, 2014). Each employee-level item that was pre-validated in the prior CFA step was added to the within-level analysis. Each group-level item was added to the between level, along with grouped copies of the within level (to test for interaction effects). As before, the model is identified using the 2+ item and 2+ factor method. The group-level model had a low comparative fit index (CFI) of just 0.753, and the SRMR for the between level was also high (0.236). The SRMR for the within level remained low (having been validated in the prior step) at 0.079. Examining the between-level standardized effects in Table 10 showed that some items might not be loading well to the variable of interest. Specifically MEMPOW1 and EXP5 were below desired values and removed in a respecified CFA model. The respecified model (also 2+/2+ identified) did not have greatly improved CFI or SRMR (0.747 and 0.255, respectively), but the standardized group-level effects were generally better (see Table 11). The fit statistics of the CFA being low is not overly concerning because we have not yet accounted for variance in the group-level interactions. None of the interaction effects for the two group-level variables was significant, which provides evidence of discriminant validity. In the following section, the ICC values will be reported to help justify multilevel analysis.

ICC values were computed using mPlus 7.3 at both the item level and the latent variable level. The ICC calculation as reported by mPlus is a measure of the group-level variance as a percent of total variance in a random intercept model, or the equation $ICC = VB/(VB + VW)$, where VB is between variance and VW is within variance. The ICC for each within-level (employee-level) item shown in Table 12 indicates that there is significant group-level

variance in a number of items. Job Satisfaction, one of the models important dependent

variables, had an average of 0.227 ICC, meaning about 23% of variance might be explained

by group-level effects. To test whether this ICC was significant,

Table 10
Standardized Factor Loadings for Level-2 Variables – Before Item Reduction

	Std. Estimate	S.E.	Est./S.E.	p
Group-Level Structural Empowerment				
MEMPOW1	0.439*	0.502	0.874	0.382
MEMPOW2	0.676	0.124	5.429	0.000
MEMPOW3	0.832	0.132	6.317	0.000
MEMPOW4	0.964	0.153	6.302	0.000
Group-Level Customer Expectations				
EXP2	0.847	0.062	13.635	0.000
EXP3	0.929	0.047	19.915	0.000
EXP4	0.869	0.052	16.647	0.000
EXP5	0.747*	0.115	6.491	0.000

*Note. A * in the Standardized Estimate column indicates an item whose estimate is so low that it should be considered for removal*

Table 11
Respecified Standardized Factor Loadings for Level-2 Variables – After Item Reduction

	Std. Estimate	S.E.	Est./S.E.	p
Group-Level Structural Empowerment				
MEMPOW2	0.620	0.442	1.402	0.161
MEMPOW3	0.759	0.309	2.458	0.014
MEMPOW4	1.059	0.358	2.96	0.003
Group-Level Customer Expectations				
EXP2	0.837	0.065	12.866	0.000
EXP3	0.929	0.056	16.591	0.000
EXP4	0.879	0.061	14.423	0.000

an F test using the formula (numgroups-1)/(numsubjects-groups) was performed and looked

up on the F-table (Soper, 2015), leading to a critical value of 1.52. The F-value of this dataset

was computed using the formula $F = ((N * \tau 11) / \sigma 2)$ where N is the average group size (3.5)

leading to an approximate F-value of 0.9. Because this F-value is below the critical value,

multilevel modeling is not fully justified. This result does not mean that any multilevel

analysis is invalid, but that it may be difficult to detect the cause of the multilevel variance in

a random intercept model. Since the proposed multilevel interactions are not hypothesized as direct effects or random intercept models, multilevel analysis is still justified.

Table 12
ICC Values for Employee-Level Variables

Variable	ICC
Customer Orientation	**0.129**
CO1	0.161
CO2	0.256
CO3	0.175
CO4	0.206
CO3B	0.249
CO4B	0.247
Job Satisfaction	**0.227**
JOBSAT2	0.235
JOBSAT3	0.273
JOBSAT4	0.204
Job Performance	**0.065**
JOBPERF2	0.156
JOBPERF4	0.097
JOBPERF5	0.095
Employee Retention	**0.214**
RETAIN2	0.233
RETAIN3	0.302
RETAIN4	0.186
Job Stress	**0.120**
JSTRESS2	0.153
JSTRESS3	0.236
JSTRESS4	0.172
Expectation Mgmt. Behaviors	**0.051**
EXPSET2	0.074
EXPSET3	0.113
EXPSET4	0.119

Note. 39 Clusters (Groups), Employee Average Cluster Size of 3.503

In addition to the ICC values for employee-level data, the ICC values of the group level variables were also computed as shown in Table 13. The customer-level data (customer expectations) resulted in an ICC for the scale of 0.017. This low ICC value means that there is not a significant amount of group-level variation in the customer-level data for a consensus composition model. However, because the scale is shown as reliable through the preceding

CFA, an additive composition model is justified (Chan, 1998). Empowerment climate had an ICC of 0.06. Similar to customer expectations, this level of ICC does not fully justify a consensus composition model, and the low average cluster size (3.5) causes the F-Test to fail to show significance. However, the reliability of the scale was validated in the prior step, and as such the additive composition model is justified (Chan, 1998).

Table 13
ICC Values for Group-Level Variables

Variable	ICC
Customer Expectations	**0.017**
EXP2	0.021
EXP3	0.008
EXP4	0.032
Employee Empowerment	**-0.066**
EMPOW2	-0.056
EMPOW3	-0.083
EMPOW4	0.001

Note. 39 Clusters (Groups), Customer Expectations Average Cluster Size of 18.308, Employee Average Cluster Size of 3.503

Employee-Only Structural Equation Modeling

The hypotheses presented in Figure 3 involve both multilevel and employee-level hypotheses. While nesting effects may be necessary to understand the entire proposed model, it is often useful to start by examining first just the employee-level hypotheses. The following structural equation modeling analyses are presented here to show these employee-level relationships.

SEM for Employee-Level Job Performance

The model shown in Figure 4 below, with each variable having multiple validated items, is first identified as having 38 free parameters and 78 observations, resulting in 40 degrees of freedom. Table 14 shows the unstandardized results of the SEM analysis. There is support for the influence of expectation management on job performance (H7), and the standardized

results indicate that 68% of the variance in job performance is significantly explained by Expectation Management Behaviors. In addition, there is support for the direct effect of customer orientation on expectation-setting behaviors (H5), although the standardized results show that 33% of the variance in expectation setting is accounted for by customer orientation. The model had a good fit with CFI of 0.919 and SRMR of 0.078.
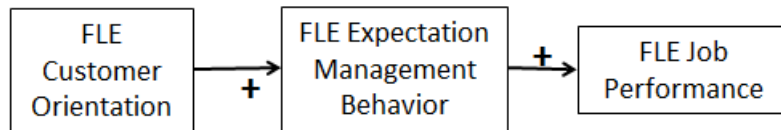

Figure 4. Employee-Level Job Performance Model

Table 14
Unstandardized Factor Loadings for Job Performance Employee-Level SEM

	Std. Estimate	S.E.	Est./S.E.	p
Customer Orientation				
CO1	1.000	0.000	0.000	0.00
CO2	0.984	0.081	12.179	0.00
CO3	0.974	0.081	12.015	0.00
CO4	0.935	0.074	12.708	0.00
CO3B	0.934	0.079	11.757	0.00
CO4B	0.958	0.080	11.919	0.00
Job Performance				
JOBPERF2	1.000	0.000	0	0.00
JOBPERF4	1.39	0.237	5.872	0.00
JOBPERF5	1.083	0.190	5.698	0.00
Expectation Management Behaviors				
EXPSET2	1.000	0.000	0.000	0.00
EXPSET3	1.562	0.33	4.736	0.00
EXPSET4	1.509	0.348	4.341	0.00
Customer Orientation → Expectation Mgmt.	0.148	0.051	2.88	0.004
Expectation Mgmt. → Job Performance	0.964	0.257	3.756	0.00

SEM for Employee-Level Job Satisfaction

The model shown in Figure 5 below in which each variable had multiple validated items, is first identified as having 62 free parameters and 190 observations resulting in 128 degree of freedom. Table 15 shows the unstandardized results of the employee-level only SEM analysis. First, due to the discriminant validity problem noted previously, H4 could not be tested and retention was removed from the model for this analysis. There was support for the hypothesis that performing expectation management behaviors leads to increased job satisfaction (H8), with standardized results showing that 20% of the variance in job satisfaction is explained by expectation management behaviors. In addition, there is support for the direct effect of customer orientation on expectation setting behaviors (H5), with the standardized results showing that 34% of the variance in expectation setting is accounted for by customer orientation. There was unfortunately no significance to the job stress on job satisfaction hypothesis (H3). Further, the effect of customer orientation acting as a job stressor, while not a hypothesized relationship on its own, was not supported. The model had a good fit with CFI of 0.0.892 and SRMR of 0.107.
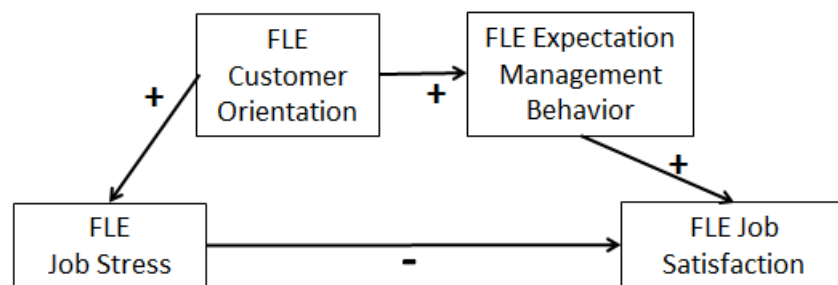

Figure 5. Employee-Level Job Satisfaction Model

Table 15

Unstandardized Factor Loadings for Job Satisfaction Level SEM

	Std. Estimate	S.E.	Est./S.E.	p
Customer Orientation				
CO1	1.000	0.000	0.000	0.000
CO2	0.983	0.081	12.178	0.000
CO3	0.972	0.081	12.009	0.000
CO4	0.934	0.074	12.707	0.000
CO3B	0.934	0.079	11.772	0.000
CO4B	0.958	0.080	11.940	0.000
Job Satisfaction				
JOBSAT2	1.000	0.000	0.000	0.000
JOBSAT3	0.638	0.104	6.110	0.000
JOBSAT4	0.336	0.072	4.646	0.000
Job Stress				
JSTRESS2	1.000	0.000	0.000	0.000
JSTRESS3	1.005	0.154	6.540	0.000
JSTRESS4	1.176	0.18	6.530	0.000
Expectation Management Behaviors				
EXPSET2	1.000	0.000	0.000	0.000
EXPSET3	1.553	0.324	4.788	0.000
EXPSET4	1.482	0.337	4.396	0.000
Job Stress				
→ Job Satisfaction	-0.040	0.140	-0.289	0.772
Expectation Mgmt.				
→ Job Satisfaction	1.118	0.581	1.922	0.055
Customer Orientation				
→ Expectation Mgmt.	0.151	0.052	2.920	0.003
Customer Orientation				
→ Job Stress	-0.092	0.085	-1.086	0.277

Multilevel Path Analysis

In order to test the hypothesized relationships including multilevel interaction effects, I
performed a path analysis on the model. The reason that a path analysis was performed and
not a full SEM analysis, is that the sample size of employees ($N = 137$) and the relatively low
number of groups (39) combine to cause a full SEM analysis to fail to converge. First, I
analyzed the job performance ultimate dependent variable path. Then, I analyzed the job
satisfaction ultimate dependent variable path. While it is possible using mPlus 7.3 to test both
paths simultaneously, I did them separately to ease understanding the various hypotheses and
to be able to test model fit for the two ultimate DVs separately. Figure 6 shows the job

performance ultimate dependent variable path, and Figure 7 shows the job satisfaction

ultimate dependent variable path. In both of the path models, I tested for random slopes and

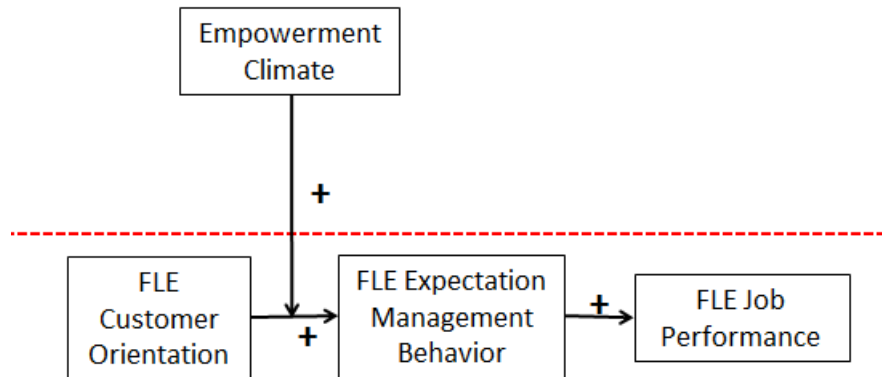random intercepts hypotheses for in the multilevel models and results presented.
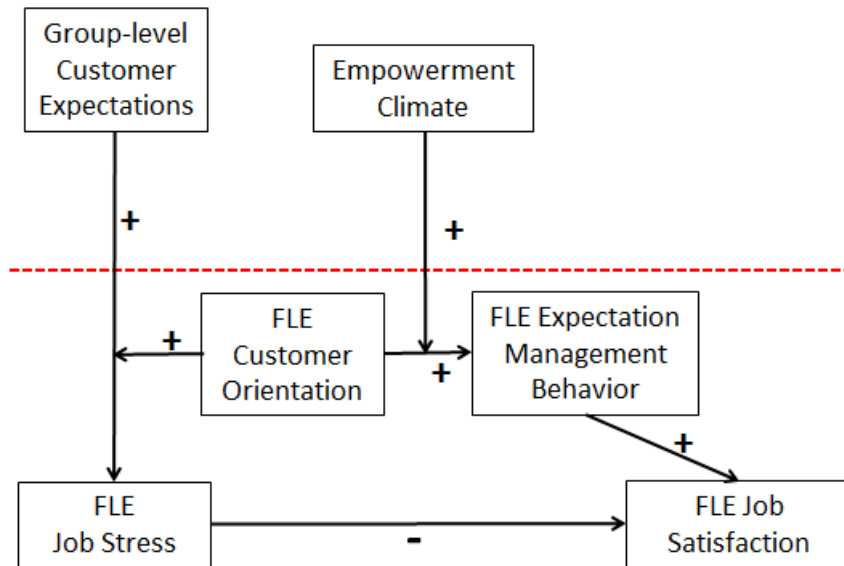

Figure 6. Job Performance Path Model

Figure 7. Job Satisfaction Path Model

Group-Level Data Preparation and Group-Mean Centering

Before the path analysis or structural equation modeling (SEM) could be computed, each of the multi-item variables had to be aggregated in some way to allow for path analysis or SEM to be performed. I performed simple averaging of all the items for each multi-item variable, including the latent variables, at the employee level in order to get the single item measures of the variables for use in path analysis. Next the item that is hypothesized to interact with the group-level variables, customer orientation (CO), was group mean centered in order to better isolate the interaction effect of group-level empowerment with customer orientation. In particular, we are interested in the empowerment effect on the slope representing the influence of customer orientation on expectation settings; a significant influence of group-level empowerment on the slope indicates a moderating effect. Since this is a contextual effect where we are interested in the exogenous effect of empowerment, the use of group-mean centering is justified (Paccagnella, 2006). In other words, group-mean centered customer orientation makes the overall mean of customer orientation across all groups zero. Then we can see how the variations in an individual's customer orientation within a group affects their likelihood to perform expectation setting behaviors in environments of high empowerment versus environments of low empowerment.

Job Performance Path Analysis Results

The model shown in Figure 6 is first identified as having nine free parameters and ten observations resulting in one degree of freedom. Table 16 shows the unstandardized results of the path analysis. There is support for the hypothesized influence of expectation management on job performance (H7). The multilevel interactions were tested with a random

Table 16
Unstandardized Path Loadings for Job Performance Path Analysis

	Std. Estimate	S.E.	Est./S.E.	p
Within Level Paths				
Expectation Mgmt Beh. → Job Performance	0.551	0.099	5.572	0.000
Residual Variances				
Expectation Mgmt Residual Variance	0.215	0.027	7.897	0.000
Job Performance Residual Variance	0.266	0.035	7.653	0.000
Between Level Paths				
Customer Orientation & Group Empowerment → Expectation Mgmt Beh.	0.280	0.153	1.829	0.067
Group Empowerment → Expectation Mgmt Beh.	-0.026	0.050	-0.531	0.596
Intercepts				
Intercept of Expectation Mgmt Beh.	6.615	0.255	25.951	0.000
Intercept of Customer Orientation & Group Empowerment	-0.944	0.712	-1.326	0.185
Variances				
Variance of Job Performance	0.001	0.021	0.035	0.972
Residual Variances				
Residual of Expectation Mgmt Beh.	0.000	0.000	999.000	999.000
Residual of Customer Orientation & Group Empowerment	0.085	0.047	1.795	0.073

slopes effect test. There is support for the random slopes hypothesis of empowerment influencing the effect of customer orientation on expectation management behaviors (H6 and H5). The data show that the effect of customer orientation on expectation management behaviors is strengthened in groups where the empowerment climate is stronger. Comparing the model fit to the null model -2Loglikelhood comparison using the formula TRd = -2*(LLnull – LLmodel)/cd, where cd is (parametersNull*scalingNull – parametersModel*scalingModel)/(paramtersNull – parametersModel) as described by Satorra and Bentler (2011), resulted in a χ^2 difference of 19.9. This positive χ^2 difference means that

the hypothesized model is a better fit than the null model, lending further support for the hypotheses.

Job Satisfaction Path Analysis Results

The model shown in Figure 7 is first identified as having 18 free parameters and 25 observations resulting in 7 degrees of freedom. Table 17 shows the unstandardized results of the path analysis. As noted previously, retention was removed from this analysis due to discriminate validity problem, and as such the H4 hypothesis could not be tested. There was support for the hypothesis that performing expectation management behaviors leads to increased job satisfaction (H8). As was the case for job performance, there is support for the random slopes hypothesis of empowerment influencing the effect of customer orientation on expectation setting (H5 and H6). There was unfortunately no significance to the job stress on job satisfaction hypothesis (H3). Further, the interaction effect of customer expectations and customer orientation acting as a job stressor was not supported (H1 and H2). Comparing the model fit to the null model -2Loglikelhood comparison using the formula TRd = -2*(LLnull – LLmodel)/cd, where cd is (parametersNull*scalingNull – parametersModel*scalingModel)/(paramtersNull – parametersModel) as described by Satorra and Bentler (2011), resulted in a χ^2 difference of -44.01. This χ^2 difference was less in the hypothesized model compared to the null model, lending support that the hypothesized model was not supported by the data.

Table 17
Unstandardized Path Loadings for Job Satisfaction Path Analysis

	Std. Estimate	S.E.	Est./S.E.	p
Within Level Paths				
Job Stress → Job Satisfaction	-0.037	0.050	-0.744	0.457

Expectation Mgmt. Beh → Job Satisfaction	0.475	0.156	3.033	0.002
Residual Variances				
Job Stress	1.922	0.241	7.966	0.000
Expectation Mgmt. Beh.	0.215	0.028	7.757	0.000
Job Satisfaction	1.168	0.142	8.199	0.000
Between Level Paths				
Customer Orientation & Group Empowerment → Expectation Mgmt Beh.	0.282	0.153	1.848	0.065
Group Empowerment → Expectation Mgmt Beh.	-0.001	0.059	-0.016	0.987
Group Customer-Exp. & Customer Orientation → Job Stress	-1.520	1.961	-0.775	0.438
Customer Expectations → Job Stress	0.003	0.863	0.003	0.997
Intercepts				
Intercept of Expectation Mgmt Beh.	6.494	0.299	21.720	0.000
Intercept of Customer Orientation & Group Empowerment	-0.953	0.712	-1.339	0.181
Intercept of Job Stress	3.965	4.022	0.986	0.324
Intercept of Group Customer Exp. & Customer Orientation	6.415	9.170	0.700	0.484
Variances				
Variance of Job Satisfaction	0.357	0.124	2.869	0.004
Residual Variances				
Residual of Expectation Mgmt Beh.	0.000	0.000	999.000	999.000
Residual of Customer Orientation & Group Empowerment	0.088	0.050	1.777	0.076
Residual of Job Stress	0.000	0.000	999.000	999.000
Residual of Group Customer Exp. & Customer Orientation	0.485	0.518	0.936	0.349

CHAPTER V

CONCLUSIONS

Interpretation of Results

In the analysis provided above, there is support for the idea that helping to manage customer expectations helps make employees feel more satisfied with their jobs. Further, the data supports the idea that the more customer oriented the employee is, the more likely she/he is to engage in these customer expectation management behaviors. In a climate where employees are more structurally empowered, these customer-oriented employees are even more likely to engage in this positive behavior of customer expectation management.

Employees believe that helping manage expectations means they are performing their jobs well. The analysis above shows that employees rate their self-perceived performance higher when they engage in customer expectation management behaviors. Performing expectation management behaviors is thus shown in this data to be important to both the employee's job satisfaction and the employee's self-rated and customer-rated job performance.

Although the data here did not support the JD/R concept that job stress leads to job dissatisfaction (Bakker & Demerouti, 2007), there is no data or analysis here that

necessarily refutes the JD/R model. More likely, the items chosen to try to measure job stress were not sufficient to encapsulate true stress for the employee. Further, there are likely at least several factors that were not measured that are interacting with the job stress and job satisfaction relationship, but which this study did not capture.

While the group-level customer expectations effect on job stress link was not significant in the analysis above, it came close when including the interaction with customer orientation. It is possible that there may be some other factor involved that was not measured and that may more strongly interact with group-level customer expectations such that the effect would become significant. Despite the fact that the hypothesized relationship between group-level customer expectations and job stress was not supported by this data, the search for this relationship should not be discouraged by these results.

Contribution to Theory

This research contributes to theory in three distinct ways. First, the new concept of Expectation Management Behaviors has been established and a new scale for measuring this concept has been validated. This research has demonstrated that Expectation Management Behaviors performed by employees may be beneficial both as an antecedent to job performance and also job satisfaction. Next, this research contributes to theory by providing a meaningful group-level construct (structural empowerment climate) that influences the strength with which customer orientation influences expectation management behaviors. This contribution is important because it is a specifically identified gap for how CO affects behaviors (Zablah et al., 2012) and also being multilevel in nature addresses calls for research into group-level phenomena in managerial settings (Bliese et al., 2007). Finally, this research contributes to theory by adding evidence to the importance of empowerment

climates for not only more satisfied employees, but also better performing employees (Leach et al., 2003).

Limitations and Future Research

Several limitations to the research presented here should be discussed further. First, discriminate validity between job satisfaction and employee retention could not be achieved. Because both of these constructs are rooted in sound theory as distinct variables, it is likely that there was a problem with the measures being used. Regardless, any future papers that may emerge from this research should take this into account and address it using techniques such as dropping one scale or the other or merging the two scales to create one scale (Farrell, 2010). The ICC of both the customer expectations and the structural empowerment scale was too low to justify a consensus aggregation model. High ICC values are needed in consensus aggregation models because it shows that there are indeed group-level variations in the variable indicated and the consensus can be explained by theory. The small per-group sample size (3.5 on average) was the likely main contributor to this problem for structural empowerment. Increasing the number of samples per group should help improve the ICC. In the case of customer expectations, it may be that there are other factors to consider prior to aggregation of customer data. For example, familiarity with the service based on being a past customer or a new customer may have to be considered before attempts at aggregation are performed. Future studies might design additional moderators or mediators through which a higher ICC could be uncovered.

There are several areas where future research could help to add value to this research by adding both external and construct validity. In addition, several hypotheses were not supported by the data here but might guide future studies to be able to construct a research

design that would be more successful. Finally, several new research questions arise from the results presented here.

This research could benefit from replication to add both construct validity to the new measure of expectation management behaviors and add external validity to go beyond the chiropractor setting. Specifically, the expectation management behaviors construct could be retested in other settings to determine the continued validity of the items. Additionally, testing the model in other settings would add to the external validity of the model, especially the connection between job satisfaction and expectation management behaviors as well as job performance and expectation management behaviors. For example, testing the model in a retail setting or some other service setting would add confidence in the generalizability of the results. Although this research did not completely rely on employee self-reports, future studies could be enhanced by being designed to match every customer response to a specific employee and including the customer's assessment of the employee: assessing the employee's expectation management behaviors and job performance. Results could further be enhanced by a manager report of each employee's job performance.

The link between job stress and job satisfaction was not found in the data gathered for this research. One problem was a relatively high score for the satisfaction items and relatively low variation of these items (mean STDDEV of 1.5). Because the variation for job satisfaction was normally distributed, it is sufficient to perform the analysis presented in this dissertation (West, Finch, & Curran, 1995). However, future studies could choose to study different kinds of customer-facing jobs where there is either more stress or more unsatisfied employees in order to better assess the cause of the stress and dissatisfaction. This would likely make the hypothesized JD/R relationships (Bakker & Demerouti, 2007) such as job

stress leading to job dissatisfaction valid. In addition to finding a more stressful job to study, it may be that there are good stressors and bad stressors, i.e., job challenges (Van den Broeck et al., 2010). Theory could inform a new model with different measures of stress (both good and bad) that would help advance the concepts presented here. It may be, for example, that high customer expectations is actually a cause of the good kind of stress (challenge), which many employees may actually thrive on. This difference in good stress and bad stress may also help explain why this research was unable to find a connection between high customer expectations and job stress. Finally, the connection between high customer expectations and job stress may not have been found in this data because the expectations are actually achievable. Future research might be designed to test for unrealistic expectations or failed disconfirmation of expectations rather than simply high customer expectations. Although this is a theoretically different approach, the underlying theories are similar and may be a more testable set of hypotheses in future research.

Although this research did not find support for every hypothesis, the findings did support a connection between expectation management behaviors and job performance and job satisfaction. These expectation management behavior hypotheses were based on the Theory of Cognitive Empathy (Barrett-Lennard, 1981). Future research could build on this advancement in knowledge to find other "behaviors" that might influence employee outcomes. For example, surface versus deep acting (Song & Liu, 2010), maintenance of the work environment (cleaning), or perhaps even coworker social interaction are all behaviors that may have a similar effect on job satisfaction. The influence of structural empowerment in this model leads to several other interesting questions for future research. What is it about structural empowerment that causes employees to engage in expectation management

behaviors? What role does psychological empowerment play in this interchange (Wallace et al., 2011)? Another key area where future research may wish to build on this research is the effects on customers by these expectation management behaviors. Specifically, researchers might wish to investigate whether customers are more satisfied when management behaviors are performed. Researchers may also wish to explore the revenue and profit impact of these behaviors. In summary, researchers may find this research a useful starting place to build on the new concept of expectation management behaviors as well as building additional knowledge in the area of empowerment.

Summary of Conclusions

In summary, this research provides empirical support for the idea that expectation management behaviors and empowerment thereof are good things from the employee's perspective. Permitting customer-oriented employees to manage customer expectations (structurally empowered) can lead to higher overall job satisfaction and job performance. Managers should consider both hiring for customer-oriented employees and also empowering (and perhaps even encouraging) employees to manage customer expectations in order to get both higher performing and more satisfied employees.

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APPENDIX A: Recruitment Materials

1. Employee Recruitment Email

Subject:
10-minute Employee Survey – Your Participation Requested to Help us Improve
Customer Satisfaction

Message:
Please help us make Chiropractic Care at <COMPANY> even better for our
clients!

We are conducting an academic study in partnership with Oklahoma State
University researchers to help us learn how to improve Customer Satisfaction.

We request your help by taking a short 10-minute survey about your experiences
with clients.

Your participation is 100% voluntary, there is no penalty for refusal to participate,
and you are free to withdraw your consent and participation in this project at any
time, without penalty.

**Your responses will be kept <u>completely anonymous</u>: no employee will ever
see your responses, and the Oklahoma State University researchers who will
analyze and aggregate the data, will never be able to identify you.**

Please, take a few moments at work today to fill out this short survey, and help us
make <COMPANY> and your specific office an even better place for both clients
and employees!

We really do hope you will participate and help us get *as close to 100%
participation in the survey as possible*.

Click this link to take the 10-minute anonymous Survey today:
        <QUALTRICS URL>

Thank You!

        The <COMPANY> Team.

2. Customer Recruitment Script

"

We are conducting an academic study in partnership with Oklahoma State University researchers to help us learn how to improve customer satisfaction.

The study involves a very short 2-part survey. The first part will take you 5-minutes before your visit today, and the second part 5-minutes immediately after your visit today.

It is 100% anonymous, and we will never see individual responses. There is a consent form as part of the survey with more details.

Would you be willing to help us out by filling out a short survey before and after your appointment today?
"

APPENDIX B: The Three Survey Instruments in Totality

1. Chiropractic Employee Survey

Participant Information Sheet

Project Title: Causes of Customer Satisfaction

Investigator(s):   Harlan Beverly, Oklahoma State University, Spears School of Business
                 Dr. Tom Brown, Oklahoma State University, Spears School of Business

Purpose: This study is being conducted for academic research purposes in an effort to understand factors affecting service quality in service businesses like Chiropractic Care.

Procedures: This is an anonymous online survey. **Your responses will be kept completely anonymous: neither your employer nor any employee will ever see your responses; and all results will be reported as group means.** Individual Clinic Data about Employees (including Means) will also not be shared with the employer. All data will be collected through a secured website, and all data will be stored in a password-protected computer. This survey should take approximately 20 minutes to complete. You must be 18 years or older to participate.

Risks of Participation: There are no expected risks of participating in this research.

Benefits: The results of this study should allow service businesses, like Chiropractic Care, to provide higher quality service and improve customer satisfaction.

Confidentiality: All of the responses will be confidential; you and your responses cannot be identified in any way. Although we have included some questions on demographics (e.g., age, sex), there will be no way for anyone other than the researchers to see your responses. Therefore, **no one other than the researchers will see your individual survey, and your individual response will never be seen by anyone except the researchers for the purpose of calculating group means.** All results will be reported as aggregated data and no individual responses will be reported.

Contacts: If you have any questions about the research or your rights as a participant in this study, please feel free to contact Harlan Beverly at 512-308-7541/harlan.beverly@okstate.edu or Dr. Tom Brown at 405-744-5113/tom.brown@okstate.edu . If you have questions about your rights as a research volunteer, you may contact the IRB office at 405-744-3377 or irb@okstate.edu.

Participant Rights: I understand that my participation is voluntary, that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time, without penalty.

Consent: By clicking the "next" arrow below, you agree that:
1. I have been fully informed about the procedures listed here. I am aware of what I will be asked to do and of the benefits of my participation.
2. I affirm that I am 18 years of age or older.
3. I have read and fully understand this consent form and I agree to it freely and voluntarily.
4. I hereby give permission for my participation in this study.

Please type in the Name of your Chiropractic Office and the City/State/Zip where it is located:
(for example: Chiro Office of XXXX, IL, 30303)

[_____]

What proportion of your time do you spend in contact with customers?

| 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

Customer Orientation
Please indicate the degree to which you agree or disagree with each of the following statements about your job by selecting the appropriate position on each scale.
<7 point Likert Scale, 1=Strongly Disagree to 7=Strongly Agree>
I find it easy to smile at each of my customers.
I enjoy remembering my customers' names.
I enjoy responding quickly to my customers' requests.
I get satisfaction from making my customers happy.

Customer Orientation
Please indicate the degree to which you agree or disagree with each of the following statements about your job by selecting the appropriate position on each scale.
<7 point Likert Scale, 1=Strongly Disagree to 7=Strongly Agree>
I get customers to talk about their service needs with me.
I take a problem-solving approach with my customers.
I keep the best interests of the customer in mind.
I try to help customers achieve their goals.

Job Fit
Please indicate the degree to which you agree or disagree with each of the following statements about your job by selecting the appropriate position on each scale.
<7 point Likert Scale, 1=Strongly Disagree to 7=Strongly Agree>
My skills and abilities perfectly match what my job demands.
My personal likes and dislikes match perfectly what my job demands.
There is a good fit between my job and me.

Job Satisfaction
<7 point Likert Scale, 1=Very Dissatisfied to 7=Very Satisfied>
How satisfied are you with your supervisor(s)?
How satisfied are you with your opportunities for promotion with this organization?
How satisfied are you with your salary or wages?
How satisfied are you with your work itself?

Job Performance
Please indicate the degree to which you agree or disagree with each of the following statements about your job by selecting the appropriate position on each scale.
<7 point Likert Scale, 1=Strongly Disagree to 7=Strongly Agree>
Compared to a typical employee at my level, I would likely be rated by my supervisor as outstanding.
I work out solutions to customer's questions or problems.
I submit required reports and paperwork on time.
I know how the office operates and keep abreast of changes in policies and procedures.
My performance causes customers to come back time and again.

Employee Retention
Please indicate the degree to which you agree or disagree with each of the following statements about your job by selecting the appropriate position on each scale.
<7 point Likert Scale, 1=Strongly Disagree to 7=Strongly Agree>
I have no desire to work for a different company

It would be hard for me to leave the company
It is great to work for this company
I am likely to be at this company in 6-months.

Expectation Sensing
Please indicate the degree to which you agree or disagree with each of the following statements about your job by selecting the appropriate position on each scale.
<7 point Likert Scale, 1=Strongly Disagree to 7=Strongly Agree>
I usually am able to sense exactly what customers need without them asking.
I realize what customers mean even when they have difficulty in saying it.
It is easy for me to understand what the customer really wants even if they cannot say it right.
I actively try to get customers to tell me what their needs are.
Customers open up to me about their specific problems prior to treatment.

Job Stress
Please indicate the degree to which you agree or disagree with each of the following statements about your job by selecting the appropriate position on each scale.
<7 point Likert Scale, 1=Strongly Disagree to 7=Strongly Agree>
I worry if customers will be pleased or not with my work.
I sometimes get nervous about the customer's reaction to my work.
I think a lot about how customers will perceive my performance.
I worry about how challenging customers will react to my work.

Expectation Setting
Please indicate the degree to which you agree or disagree with each of the following statements about your job by selecting the appropriate position on each scale.
<7 point Likert Scale, 1=Strongly Disagree to 7=Strongly Agree>
I correct clients who incorrectly think all their problems will be solved in one visit.
I help clients understand that lifestyle changes may also be needed in addition to their treatment.
I proactively make sure the client knows what will likely happen during their visit.
I help clients understand the kind of results they can expect from their visit.

Service Empowerment
Please indicate the degree to which you agree or disagree with each of the following statements about your job by selecting the appropriate position on each scale.
<7 point Likert Scale, 1=Strongly Disagree to 7=Strongly Agree>
I am permitted to use my own judgment in solving customer problems.
I have complete freedom in my work to serve customers.
I am allowed to serve the customers the way I think best.
I am encouraged to serve customers in my own way.

What is your gender?
Male
Female

What is your job role?
• Chiropractic Technician
• Advance Nurse Practitioner
• Licensed Chiropractic Technician
• Clinic Director / Chiropractic Physician
• Associate Chiropractic Physician
• Other Administrator
• Other Support Staff
• Other (please specify)

What is your current age?

- 18 to 19
- 20 to 24
- 25 to 34
- 35 to 44
- 45 to 54
- 55 to 64
- 65 or over

2. Pre-Visit Customer Survey

Participant Information Sheet

Project Title: Customer Expectations

Investigator(s):   Harlan Beverly, Oklahoma State University, Spears School of Business
                   Dr. Tom Brown, Oklahoma State University, Spears School of Business

Purpose: This study is being conducted for academic research purposes in an effort to understand factors affecting service quality in service businesses like Chiropractic Care.

Procedures: This is a 2-part anonymous online survey, where part 1 will be completed prior to your office visit, and part 2 will be completed after your office visit. **Your responses will be kept completely anonymous: employees will never see your responses, and researchers will never be able to identify you.** All data will be collected through a secured website, and all data will be stored in a password-protected computer. This first part of the survey should take approximately 5 minutes to complete. You must be 18 years or older to participate.

Risks of Participation: There are no expected risks of participating in this research. There will be no way for anyone to identify individual participants with their responses.

Benefits: The results of this study should allow service businesses, like Chiropractic Care, to provide higher quality service and improve customer satisfaction.

Confidentiality: All of the responses will be confidential; you and your responses cannot be identified in any way. Although we have included some questions on demographics (e.g., age, sex), no questions ask for any specific information that can be used to identify you. Therefore, **no one other than the researchers will see your individual survey, nor will anyone ever be able to tell one individual from another in the results.** All results will be reported as aggregated data and no individual responses will be reported.

Contacts: If you have any questions about the research or your rights as a participant in this study, please feel free to contact Harlan Beverly at 512-308-7541/harlan.beverly@okstate.edu or Dr. Tom Brown at 405-744-5113/tom.brown@okstate.edu . If you have questions about your rights as a research volunteer, you may contact the IRB office at 405-744-3377 or irb@okstate.edu.

Participant Rights: I understand that my participation is voluntary, that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time, without penalty.

Consent: By clicking the "next" arrow below, you agree that:
1. I have been fully informed about the procedures listed here. I am aware of what I will be asked to do and of the benefits of my participation.
2. I affirm that I am 18 years of age or older.
3. I have read and fully understand this consent form and I agree to it freely and voluntarily.
4. I hereby give permission for my participation in this study.

What year were you born? (NOTE: This value will also be used to anonymously match the 2nd-survey which you will fill out after your visit.).

[   ]

Expectations

Please choose a response for both columns for each question below:

How much do you agree or disagree with each of these statements?

How sure are you?

<2x 5-Point Likert Scales (must choose one from both) 1=Strongly Disagree to 5=Strongly Agree, then,   1=Very Unsure to 5 = Very Sure>

This office's employees will try to give me a good experience.

This office's employees will provide superior service.

The quality of my interactions with this office's employees will be high.

When this office's employees promise to do something by a certain time, they will.

When customers have problems, this office's employees will be sympathetic and reassuring.

Customers will be able to trust this office's employees.

Customers will be able to feel safe in their transactions with this office's employees.

Anticipatory Expectations

Please choose a response for both columns for each question below:

How much do you agree or disagree with each of these statements?

How sure are you?

<2x 5-Point Likert Scales (must choose one from both) 1=Strongly Disagree to 5=Strongly Agree, then,   1=Very Unsure to 5 = Very Sure>

The Chiropractor's treatment/adjustment will not be painful.

I will be able to trust the Chiropractor throughout my visit.

The Chiropractor will be sensitive to my feelings.

I will feel immediate relief when the Chiropractor gives treatment.

I will only have to visit the Chiropractor once to solve my problem.

What is your gender?

Male

Female

Have you ever seen any Chiropractor before today?

- Yes, I have seen a Chiropractor before today.
- No, I have never seen a Chiropractor before today.

Prior to today, approximately how many treatments have you received from this Chiropractor?

- 0
- 1
- 2-5
- 6-10
- 10+

3. Post-Visit Customer Survey
Participant Information Sheet

Project Title: Customer Expectations - Part 2: Satisfaction

Investigator(s):   Harlan Beverly, Oklahoma State University, Spears School of Business
                   Dr. Tom Brown, Oklahoma State University, Spears School of Business

Purpose: This study is being conducted for academic research purposes in an effort to understand factors affecting service quality in service businesses like Chiropractic Care.

Procedures: This is part 2 of the 2-part anonymous survey which should take 5 minutes or less to complete. will be completed after your office visit. **Your responses will be kept completely anonymous: employees will never see your responses, and researchers will never be able to identify you.** All data will be collected through a secured website, and all data will be stored in a password-protected computer. You must be 18 years or older to participate.

Risks of Participation: There are no expected risks of participating in this research. There will be no way for anyone to identify individual participants with their responses.

Benefits: The results of this study should allow service businesses, like Chiropractic Care, to provide higher quality service and improve customer satisfaction.

Confidentiality: All of the responses will be confidential; you and your responses cannot be identified in any way. Although we have included some questions on demographics (e.g., age, sex), no questions ask for any specific information that can be used to identify you. Therefore, **no one other than the researchers will see your individual survey, nor will anyone ever be able to tell one individual from another in the results.** All results will be reported as aggregated data and no individual responses will be reported.

Contacts: If you have any questions about the research or your rights as a participant in this study, please feel free to contact Harlan Beverly at 512-308-7541/harlan.beverly@okstate.edu or Dr. Tom Brown at 405-744-5113/tom.brown@okstate.edu . If you have questions about your rights as a research volunteer, you may contact the IRB office at 405-744-3377 or irb@okstate.edu.

Participant Rights: I understand that my participation is voluntary, that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time, without penalty.

Consent: By clicking the "next" arrow below, you agree that:
1. I have been fully informed about the procedures listed here. I am aware of what I will be asked to do and of the benefits of my participation.
2. I affirm that I am 18 years of age or older.
3. I have read and fully understand this consent form and I agree to it freely and voluntarily.
4. I hereby give permission for my participation in this study.

What year were you born? (NOTE: Please match the year you provided on the Pre-Visit survey so we can match your responses anonymously.).
[_____]

Expectation Management
Please indicate the degree to which you agree or disagree with each of the following statements about your interactions with the Employees at this office today.
<5-Point Likert Scale, 1=Strongly Disagree to 5=Strongly Agree>
The employees here seemed to know what I needed before I asked.
The employees here took the time to ask me about my needs before my treatment.
I felt comfortable opening up to employees here about my needs.
The employees here corrected me when my needs were simply not possible.
The employees here took the time to explain to me whenever I was wrong about an assumption.
The employees here helped me better understand what I should expect from treatment.

Expectation Confirmation

Please indicate the degree to which you agree or disagree with each of the following statements about your experience today.

<5-Point Likert Scale, 1=Strongly Disagree to 5=Strongly Agree>

This office's employees gave me a good experience.

This office's employees provided superior service.

The quality of my interactions with this office's employees was high.

When this office's employees promise to do something by a certain time, they do so.

When customers have problems, this office's employees are sympathetic and reassuring.

Customers are able to trust this office's employees.

Customers are able to feel safe in their transactions with this office's employees.

Anticipatory Expectation Confirmation

Please indicate the degree to which you agree or disagree with each of the following statements about your experience today.

<5-Point Likert Scale, 1=Strongly Disagree to 5=Strongly Agree>

The Chiropractor's treatment/adjustment was not painful.

I was able to trust the Chiropractor throughout my visit.

The Chiropractor was sensitive to my feelings.

I felt immediate relief when the Chiropractor gave treatment.

This visit was the last one I will need in order to resolve this problem.

Customer Satisfaction & Employee Performance

Please indicate your level of satisfaction for the following items.

<7-point Likert Scale 1=Very Dissatisfied to 7=Very Satisfied>

The Overall Service provided by this office's employees today.

The Overall Results of my treatment today.

The Overall assessment of the Chiropractor's performance today.

The Overall assessment of the Support Staff's performance today.

Refer & Return Likelyhood

Please indicate how likely you are to perform the actions in the following questions:

<7-point Likert Scale 1=Very Unlikely to 7=Very Likely>

How likely are you to return to this Office should you need Chiropractic services again?

How likely are you to refer your friends to this Office if they need Chiropractic services?

APPENDIX C: IRB APPROVAL FORM

Oklahoma State University Institutional Review Board

Date: Thursday, October 02, 2014

IRB Application No BU1459

Proposal Title: How Customer Expectation Adjustment Effects Service Performance

Reviewed and Processed as: Exempt

Status Recommended by Reviewer(s): Approved   Protocol Expires: 10/1/2017

Principal Investigator(s):

Harlan Beverly	Tom Brown
720 Brazos 810	319 CBA
Austin, TX 78701	Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

☑ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval. Protocol modifications requiring approval may include changes to the title, PI advisor, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms
2. Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of the research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Dawnett Watkins 219 Cordell North (phone: 405-744-5700, dawnett.watkins@okstate.edu).

Sincerely,

Hugh Crethar, Chair
Institutional Review Board

Chiropractic Employee Survey

Participant Information Sheet

Project Title: Causes of Customer Satisfaction

Investigator(s):   Harlan Beverly, Oklahoma State University, Spears School of Business
                   Dr. Tom Brown, Oklahoma State University, Spears School of Business

Purpose: This study is being conducted for academic research purposes in an effort to understand factors affecting service quality in service businesses like Chiropractic Care.

Procedures: This is an anonymous online survey. **Your responses will be kept completely anonymous: no employee will ever see your responses; and all results will be reported as group means.** All data will be collected through a secured website, and all data will be stored in a password-protected computer. This survey should take approximately 20 minutes to complete. You must be 18 years or older to participate.

Risks of Participation: There are no expected risks of participating in this research.

Benefits: The results of this study should allow service businesses, like Chiropractic Care, to provide higher quality service and improve customer satisfaction.

Confidentiality: All of the responses will be confidential; you and your responses cannot be identified in any way. Although we have included some questions on demographics (e.g., age, sex), there will be no way for anyone other than the researchers to see your responses. Therefore, no one other than the researchers will see your individual survey, and your individual response will never be seen by anyone except the researchers for the purpose of calculating group means. All results will be reported as aggregated data and no individual responses will be reported.
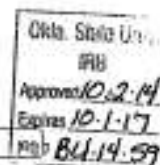
Contacts: If you have any questions about the research or your rights as a participant in this study, please feel free to contact Harlan Beverly at 512-308-7541/harlan.beverly@okstate.edu or Dr. Tom Brown at 405-744-5113/tom.brown@okstate.edu . If you have questions about your rights as a research volunteer, you may contact the IRB office at 405-744-3377 or irb@okstate.edu.

Participant Rights: I understand that my participation is voluntary, that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time, without penalty.

Consent: By clicking the "next" arrow below, you agree that:
1. I have been fully informed about the procedures listed here. I am aware of what I will be asked to do and of the benefits of my participation.
2. I affirm that I am 18 years of age or older.
3. I have read and fully understand this consent form and I agree to it freely and voluntarily.
4. I hereby give permission for my participation in this study.

Please type in the Name of your Chiropractic Office and the City/State/Zip where it is located!
(for example: Chiro Office of XXXX, IL, 30303)

☒Completion of required IRB training (http://compliance.vpr.okstate.edu/IRB/gs-CITI.aspx)
☐Grant Proposal, if research is externally funded
☒Outline or script of information to be provided prior to subjects' agreement to participate
☒Copies of flyers, announcements or other forms of recruitment
☒Informed consent/child assent/parental permission forms
☒Instrument(s) [questionnaire, survey, tests]
☐Résumés or CVs for all PIs (faculty or student) and advisors (**4 page maximum for each**)*

*CVs should highlight the education and research expertise of the researcher. Researchers may submit CVs prepared for federal grant proposals (e.g., NIH, NSF, USDA, etc.).

Appendices Included:

☐Appendix A - Request for OSU System Email Addresses for Human Subject Research
                 Recruitment Purposes

Number of copies:

One (1), single sided copy of the application and associated attachments, signed by all PIs and advisor (if appropriate).

Submission Addresses:

Mail to:
IRB/University Research Compliance
Oklahoma State University
219 Cordell North
Stillwater, OK 74078-1038

Hand deliver to:
IRB/University Research Compliance
208 or 217 Cordell North

Email Submission (Application must be signed):
irb@okstate.edu

For assistance, please contact the IRB staff in the Office of University Research Compliance at 405-744-3377 or email irb@okstate.edu.

APPENDIX A1 - Employee Recruitment Email

Subject:
10-minute Employee Survey – Your Participation Requested to Help us Improve Customer Satisfaction

Message:
Please help us make Chiropractic Care at <COMPANY> even better for our clients!

We are conducting an academic study in partnership with Oklahoma State University researchers to help us learn how to improve Customer Satisfaction.

We request your help by taking a short 10-minute survey about your experiences with clients.

Updated: December, 2013

Okla. State U
IRB
Approved /0.2.14
Expires /0.1.17
IRB # /4.14.59

Your participation is 100% voluntary, there is no penalty for refusal to participate, and you are free to withdraw your consent and participation in this project at any time, without penalty.

Your responses will be kept completely anonymous: no employee will ever see your responses, and the Oklahoma State University researchers who will analyze and aggregate the data, will never be able to identify you.

Please, take a few moments at work today to fill out this short survey, and help us make <COMPANY> and your specific office an even better place for both clients and employees!

We really do hope you will participate and help us get *as close to 100% participation in the survey as possible*.

Click this link to take the 10-minute anonymous Survey today:
    <QUALTRICS URL>

Thank You!
    The <COMPANY> Team.

APPENDIX A2 – Customer Recruitment Script

"

We are conducting an academic study in partnership with Oklahoma State University researchers to help us learn how to improve customer satisfaction.

The study involves a very short 2-part survey. The first part will take you 5-minutes before your visit today, and the second part 5-minutes immediately after your visit today.

It is 100% anonymous, and we will never see individual responses. There is a consent form as part of the survey with more details.

Would you be willing to help us out by filling out a short survey before and after your appointment today?

"

APPENDIX B1 – EMPLOYEE SURVEY

APPENDIX B2 – CUSTOMER PRE_VISIT SURVEY

APPENDIX B3 – CUSTOMER POST_VISIT SURVEY

Updated: December, 2013

VITA

Harlan Titus Beverly

Candidate for the Degree of

Doctor of Philosophy

Thesis: THE IMPACT OF CUSTOMER EXPECTATIONS ON SERVICE EMPLOYEES

Major Field: Business Administration

Biographical:

    Education:

    Completed the requirements for the Doctor of Philosophy in Business Administration at Oklahoma State University, Stillwater, Oklahoma in December, 2015.

    Completed the requirements for the Master in Business Administration at The University of Texas, Austin, Texas in December 2004.

    Completed the requirements for the Bachelor of Science in Electrical and Computer Engineering at Ohio Northern University, Ada, Ohio in May 1999.

    Experience:

    President and CEO of Key Ingredient, Austin, Texas in May 2013 until Present.

    President and CEO of Karmaback, Austin, Texas in August 2009 until Present.

    President and CEO, CTO of Bigfoot Networks, Austin, Texas in February 2005 until August 2009.

    Professional Memberships:

    Member of IEEE since 1999