

EMPIRICAL INVESTIGATION OF CHALLENGE
AND HINDRANCE APPRAISALS OF CUSTOMER
DENAMDS

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DEMANDS

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Abstract: My dissertation investigates how frontline employees (FLEs) assess and respond to demanding customers. The results provide normative recommendations for managers for the effective management of FLEs so as to reduce the detrimental effects (e.g., high turnover) and increase the beneficial effects (e.g., superior performance) of customer demands in order to enhance the long term success of organizations. Interestingly, the manner in which FLEs assess and respond to demands from their customers has received relatively limited attention in the marketing literature. Further, some of the existing studies suggest that customer demands lead to negative consequences for FLEs, while other studies find positive effects. To date, researchers have largely ignored (1) what factors influence appraisals of customer demands as either challenges or hindrances, and (2) how the two different forms of appraisal may trigger different psychological processes on job-related outcomes. Uncovering the differential effects of customer demand appraisal (i.e., challenge appraisal and hindrance appraisal) on job stress and engagement may help explain the influence of customer demands on important FLE job outcomes. Further, if customer demand appraisal can be tied to these FLE outcomes, it becomes important to understand the personal factors that influence how FLEs perceive customer demands. Using a multi-source dataset (insurance agents and their supervisors), this study found that (1) prosocial and intrinsic motivations synergistically influence challenge and hindrance appraisals of customer demands, and (2) the challenge and hindrance appraisals influence job satisfaction and job performance through motivational and energy depletion processes.

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CHAPTER I

INTRODUCTION

“The customer is always right,” or so claimed the founder of the 19th century Marshall Field’s department stores, to whom the phrase is attributed (Madsen, 2002, p. 3). Unparalleled in influence, this classic service axiom persists and permeates the service experience for both provider and customer like no other. However, the demanding nature of many customers, especially in the service/sales sector, may contribute to burnout and disengagement of frontline employees (FLEs; e.g., Singh, 2000; Dormann & Zapf, 2004). Over time, the effects of serving demanding customers can lead to poor job-related outcomes and high turnover of FLEs, both of which lead to increased costs for employers (e.g., Rust, Stewart, Miller, & Pielack, 1996). For example, turnover rates of customer service representatives are estimated to range from 35 percent to 50 percent per year (IBISWorld, 2008), and the agent turnover becomes an estimated cost of \$5000 to replace each customer service representative (Golden, 2010). These high rates among customer service employees are largely attributed to working with customers every day (Poddar & Madupalli, 2012).

But is this true for all FLEs? Although limited, some research has indicated positive responses for FLEs to dealing with demanding customers. For example, scholars have suggested that FLEs appraise customer demands as challenges (e.g., Wang & Netemeyer, 2002; Jaramillo, Mulki, & Boles, 2012) because FLEs may see high customer demands as opportunities to promote personal growth or even to hone their skills in job tasks (LePine, Podsakoff, & LePine, 2005). This suggests that customer demands sometimes facilitate increased engagement on the part of FLEs. This mix of outcomes (e.g., burnout and excellent performance) in response to customer demands and expectations suggests the importance of gaining greater understanding so that managers can better manage FLEs, who as the face of the company regularly encounter demanding customers. Simply put, in the face of customer demands, why do some FLEs seem to flourish while others tend to disengage? In this dissertation I develop and test a conceptual model that can theoretically accommodate both positive and negative FLE job responses to customer demands. This is important, because a better understanding of how FLEs assess and respond to customer demands will allow managers to effectively train FLEs in order to both reduce the detrimental effects (e.g., high turnover) of and increase the beneficial effects (e.g., superior service delivery) of customer demands, which will enhance the long term success of organizations.

Prior scholars (e.g., Dormann & Zapf, 2004; Jaramillo, Mulki, & Boles, 2012) have tended to categorize particular customer demands as either challenge demands or hindrance demands, drawing from the theoretical work of challenge-hindrance occupational stress model (LePine, Podsakoff, & LePine, 2005). Such an approach is shortsighted, however, because individuals may react differently to any particular demand based on their individual characteristics. One important contribution of this dissertation is the introduction of two new

constructs to the literature, “challenge appraisal” and “hindrance appraisal,” along with their associated measures. Challenge appraisal refers to FLEs’ perception of the extent to which customer requests and demands generally provide them with an opportunity for learning and on-the-job growth. In contrast, hindrance appraisal refers to FLEs’ perception of the extent to which customer requests and demands generally interfere with their ability to successfully execute their job role.

Interestingly, the manner in which FLEs assess and respond to demands from their customers has received relatively limited attention in the marketing and management literatures. To date, researchers have largely ignored (1) what factors influence appraisals of customer demands as either challenges or hindrances, and (2) how the two different forms of appraisal may trigger different psychological processes on job-related outcomes. Uncovering the differential effects of customer demand appraisal (i.e., challenge appraisal and hindrance appraisal) on job stress and engagement may help explain the influence of customer demands on important FLE job outcomes (i.e., job performance and job satisfaction). Further, if customer demand appraisal can be tied to these FLE outcomes, it becomes important to understand the personal factors that influence how FLEs perceive customer demands (i.e., challenge appraisal and hindrance appraisal). Based on the work of Grant (2008), I argue that two distinct forms of FLE motivation, prosocial motivation and intrinsic motivation, exert an interactive influence on FLE challenge appraisal and hindrance appraisal.

This study has two aims. Applying the job demands-resources (JD-R) theory with the transactional theory of stress (Crawford, LePine, Rich, 2010), I first theorize and test two appraisals of customer demands: challenge appraisal and hindrance appraisal. Previous studies have not examined customer demands through the theoretical lens of the appraisal

approach. This study extends JD-R theory by explaining why these two forms of appraisal (i.e., challenge and hindrance) activate different psychological mechanisms that result in either job stress or engagement in the service/sales context.

The second aim of the study is to propose and test the degree to which two valuable personal resources—prosocial motivation and intrinsic motivation—interact to influence FLE challenge appraisals and hindrance appraisals. Prosocial motivation refers the willingness to expend one’s effort to benefit other people (Batson, 1987). Intrinsic motivation refers to the willingness to expend one’s effort on the basis of enjoyment of and interest in the work itself (Ryan & Deci, 2000). Although JD-R theory generally proposes that job resources directly contribute to motivation and engagement, recent research suggests that job resources and personal resources may also influence FLEs’ perceptions of job demands (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). Building on this theoretical perspective, this study offers new insight regarding how two important personal resources (i.e., prosocial motivation and intrinsic motivation) operate to influence FLEs’ appraisals of customer demands.

1.1 Contribution to the Literature

The present study extends the marketing and management literature in theoretically and managerially meaningful ways. First, it represents a critical step toward establishing how customer demands are appraised by FLEs. Previously, customer demands have been simply conceptualized as challenges in the marketing literature (e.g., Jaramillo, Mulki, & Boles, 2012), and the challenge has been cast as a “good” thing. However, the concept still remains ambiguous and unclear. Customers’ unreasonable requests often impede frontline workers’

ability to help customers rather than motivate them to improve their job tasks (i.e., a “bad” thing). This suggests that because demanding situations from customers can be appraised by FLEs as either a challenge or a hindrance, work discriminating the two will contribute to the literature, and foster better understanding of how two different forms of appraisal of customer demands are channeled to either the energy depletion process or the motivational process on job-related outcomes (i.e., job satisfaction and job performance).

Second, this study extends and builds on JD-R theory with the transactional theory of stress to test how a pair of personal resources—prosocial motivation and intrinsic motivation—influences FLEs’ appraisals of customer demands as either challenges or hindrances. Recent research suggests that job and personal resources may influence FLEs’ perceptions (appraisals) of job demands (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). This study builds on recent research (Grant, 2008) to evaluate how prosocial motivation and intrinsic motivation—both personal resources—interactively operate to influence FLEs’ challenge and hindrance appraisals of customer demands. This approach then represents an important extension, as extant research has not investigated the potential antecedents of challenge and hindrance demands. Instead, extant research has focused only on examining relationships between hindrance / challenge demands and the consequent job states (e.g., stress and/or engagement). However, both the marketing and management literatures have almost completely ignored factors that may influence workers’ appraisals of job demands as either challenges or hindrances. This new approach therefore serves to address an important gap in the literature by providing the first empirical investigation of antecedent relationships.

1.2 Organization of the Dissertation

This dissertation is organized as follows: This chapter provides an introduction and brief overview of the study and of the contribution to the literature. Chapter two offers a general review of the job demands-resources (JD-R) model highlighting recent contributions to the JD-R theory that are important to this study. Further, chapter two introduces the transactional theory of stress as the theoretical basis for the study's proposed hypotheses, along with a review of the literature on customer demands and prosocial and intrinsic motivations. Chapter three presents the research methodology, and the methods used for data analysis. Chapter four provides the results of data analysis for the proposed hypotheses. Finally, chapter five summarizes the main research findings, along with theoretical and managerial implications.

CHAPTER II

REVIEW OF LITERATURE

The purpose of this chapter is to provide a review of the literature on the job demands-resources (JD-R) model, customer demands, and intrinsic and prosocial motivations.

There are three sections in this chapter.

In the first section, I introduce the JD-R model as a main theoretical base. Further, I build upon the model by incorporating the transactional theory of stress. Therefore, the JD-R model, augmented with the theoretical lens of the transactional theory of stress, provide the foundation for the hypothesized relationships in the proposed conceptual model.

The second section presents a review of the literature. First, I examine why frontline employees (FLEs) appraise their customers' demands as either challenges or hindrances. Second, I review the antecedent variables to the FLEs' appraisals—prosocial motivation and intrinsic motivation. I then explain why these two forms of motivation differ.

The third section presents hypothesis development with respect to the causal ordering among constructs in the conceptual model.

2.1 Theoretical Framework

2.1.1 Job Demands-Resources Theory

The JD-R theory posits that while every occupation has its own specific factors related to employee job engagement and stress, those factors can be generally classified in two broad categories: job demands and job resources (e.g., Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Crawford, LePine, & Rich, 2010). Job demands refer to those aspects of the job that are relevant to role fulfillment and require FLEs to make sustained psychological and physical efforts, which result in certain psychological and physical costs (Zablah et al., 2012). Examples of common job demands include time pressure and interaction with emotionally demanding customers (Bakker & Demerouti, 2007). In contrast, job resources refer to those aspects of the job and the person that allow FLEs to accomplish their work goals, help in reducing and/or dealing with job demands, and even provide for learning and personal development (Zablah et al., 2012). Examples of such resources include self-efficacy and job control.

In addition, JD-R theory suggests that job demands and job resources may evoke two psychologically different processes. First, job demands are generally assumed to trigger an energy depletion process, whereby employees' increased efforts to meet perceived demands are met with an increase in physical and mental costs that drain their limited energy (Crawford, LePine, & Rich, 2010). The energy depletion process leads to overtaxing, resulting in job stress or burnout in the long run. Several job demands—potential determinants of job stress—have

been explored in prior research, including physical workload and time pressure (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), emotional demands and work-home conflict (Bakker, Demerouti, & Verbeke, 2004), emotional dissonance and organizational changes (Xanthopoulou et al., 2007), role ambiguity and role conflict (Babakus, Yavas, & Ashill, 2009), and sales control systems (i.e., outcome and activity control, Miao & Evans, 2013).

Second, job resources are generally assumed to promote a motivational process, whereby job resources foster employees' learning and growth and increase willingness to expend effort and ability toward accomplishing job tasks (Crawford, LePine, & Rich, 2010). Several job resources—potential determinants of job engagement—have been explored in prior research, including performance feedback, social support, and supervisory coaching (Schaufeli & Bakker, 2004), autonomy and professional development (Xanthopoulou et al., 2007), opportunities to learn (Schaufeli, Bakker, & van Rhenen, 2009), safety climate (Nahrgang, Morgeson, & Hofmann, 2001), and psychological customer orientation (Zablah et al., 2012). Empirical results support the notion that job resources directly contribute to job engagement.

In addition to the proposed main effects of job demands and resources, the JD-R model proposes that interactions between demands and resources influence both health-impairing (i.g., job stress) and job-enhancing (i.e., job engagement) effects (Bakker & Demerouti, 2007). Job resources may buffer the impact of job demands on stress (e.g., Bakker, Demerouti, & Euwema, 2005). For example, the positive effect of emotional demands on burnout is weaker when high levels of autonomy and social support are given to employees (Xanthopoulou et al., 2007). Furthermore, it is predicted that job resources have beneficial effects for the development of job engagement when employees are confronted with demanding job conditions (e.g., Bakker, van Veldhoven, & Xanthopoulou, 2010; Zablah et al., 2012)

Importantly, the JD-R model has been expanded with the additional relationship between job resources and job stress (or burnout). Empirical evidence from several studies also suggests that job resources may have a negative influence on job stress or burnout (e.g., Bakker, Demerouti, & Schaufeli, 2003; Bakker, Demerouti, & Euwema, 2005). According to conservation of resources theory, employees experience greater stress when resources are threatened or depleted, and in the long term, they are likely to experience burnout (Hobfoll, 1989). Individuals who have relatively large pools of resources are more likely to meet demands easily and to protect themselves from experiencing the strains attached to resource depletion (Lee & Ashforth, 1996). In contrast, individuals who have relatively low pools of resources have more difficulty in meeting demands, and accordingly, they quickly experience strains. In this regard, job resources have a direct negative influence on employees' job stress or burnout.

In addition, although the JD-R model predicts that job demands cause job stress, the empirical evidence regarding the relationship between job demands and engagement is unclear, and scholars have generally agreed that job demands are irrelevant in influencing job engagement (e.g., Schaufeli & Bakker, 2004). Recent studies, however, have shown that job demands sometimes are related to job engagement, although opposing results exist in the published literature. For example, Sonnentag (2003) found that job demands are negatively related to employees' job engagement. Bakker, van Emmerik, and Euwema (2006) also found that physical job demands are negatively related to employee engagement. In contrast, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007) showed that one type of job demand, high workload, is positively related to engagement.

In its existing form, JD-R theory cannot account for these opposing results. I extend the JD-R model with the transactional theory of stress in order to address this inconsistency in the

literature. To do so, I examine FLE appraisals of customer-based job demands of two distinct types, challenge appraisal and hindrance appraisal.

2.1.2 Transactional Theory of Stress

According to the transactional theory of stress, individuals appraise stressful situations such as customer demands in terms of the effect on their well-being representing either challenges or hindrances (Lazarus & Folkman, 1984). That is to say, people appraise demands as challenges and/or hindrances according to their own interpretations or perceptions. In this regard, FLEs may uniquely perceive the extent to which customer requests or demands generally provide them with opportunities (challenges) or hinder their abilities (hindrances). The FLE's unique appraisals of customer demands would affect the FLEs' level of job engagement in the following ways: The perception of challenge demands has a positive influence on job engagement while the perception of hindrance demands has a negative influence on the same construct (Cawford, LePine, & Rich, 2010). Yet, perceptions of both challenge and hindrance demands will increase stress even though hindrance appraisal will have a stronger effect on stress compared to challenge appraisal. Again, note that the addition of the transactional theory of stress to JD-R theory accounts for differential influences of a general category of job demand (i.e., customer demands) on job stress and job engagement depending upon the degree to which FLEs appraise customer demands to be challenges or hindrances.

Moreover, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007) argue that personal resources (e.g., personal traits) may be antecedents of perception of demands. As mentioned before, resources have a direct influence on job engagement and/or job stress. However, Bakker

and his colleagues have also acknowledged that resources may shape demand perceptions in the JD-R model. Yet, the notion of resources affecting demand perceptions has been almost completely overlooked in the literature. Similarly, personal attributes lead to different responses to stressful events (Bolger & Zuckerman, 1995). In line of this theorizing, Lazarus and Folkman (1987) maintain that the extent to which a human interaction is harmful (hindrance) and/or beneficial (challenge) relies heavily on the psychological characteristics (i.e., personal resources) that an individual possesses. Consistent with these arguments, I propose that two important personal resources, intrinsic motivation and prosocial motivation, interact to predict levels of challenge and hindrance appraisal of customer demands in the service/sales context.

Therefore, the central aim of this study is to extend the JD-R model with transactional theory of stress in the development of (1) how the two different appraisals of customer demands are channeled to either the energy depletion process and/or the motivational process on job-related outcomes and (2) how two specific personal resources interactively influence FLEs' challenge and/or hindrance appraisals of customer demands.

2.2 Are Customer Demands Perceived as Challenges or Hindrances?

Recently, fast-paced changes in the way FLEs must respond to customer needs have created many challenges for service- and sales-based jobs. In response to increasingly sophisticated customer expectations, sales and service organizations have begun to emphasize creative and problem-oriented approaches to their FLEs. According to Wang and Netemeyer (2002), when customers have high expectations and/or unique requests, it may signal a gap between customer expectations and FLE's product/service offering and/or anything relevant to

customers that FLEs are unaware of. Therefore, perceived customer demands prompt FLEs to push themselves toward learning more about their job tasks (e.g., how to serve customers) or acquiring new knowledge for their personal growth (Wang & Netemeyer, 2002). In addition, Jaramillo and Mulki (2008) maintain that serving demanding and difficult customers is likely to trigger FLEs to increase job effort because FLEs view customer demands as opportunities to enhance their ability and hone their skills. In sum, previous research suggests that FLEs perceive customer demands as challenging and motivating because customer requests or demands provide them with opportunities for promoting job growth and personal achievement (LePine, Podsakoff, & LePine, 2005).

However, the concept of customer demands still remains ambiguous and unclear because demanding situations from customers can also be perceived by FLEs as not a challenge, but rather as a hindrance. In this vein, it has been argued that personal relationships with customers are very demanding and require a high amount of emotional involvement. For example, customer-related social demands are very stressful and likely to hinder FLEs' abilities to help customers, resulting in FLEs' burnout (Dormann & Zapf, 2004). In addition, prior research also suggests that customer demands are one of many potential sources of job stress (Cano, Sams, & Schwartz, 2009; Jaramillo, Mulki, & Boles, 2012). Therefore, FLEs can perceive customer demands (e.g., ambiguous customer expectation) as obstacles that constrain work-related tasks. As shown in Table 1, research has yet to reach a consensus on whether customer demands are perceived by FLEs as a challenge or a hindrance.

More importantly, FLEs can appraise customer demands at different levels. Based on the cognitive appraisal approach, demands per se, are not the direct cause of a stress or motivational response, but rather the interpretation of the demands as challenge vs. hindrance, determines how

individuals respond (Giancola, Grawitch, & Borchert, 2009). In other words, when an individual encounters a demand, s/he evaluates the demand depending on whether s/he appraises the demand as either a challenge or a hindrance. In this regard, some people appraise customer demands as challenges while others may appraise the same customer demands as hindrances. In order to account for the issue, I develop two new constructs (i.e., challenge and hindrance appraisals of customer demands) to measure FLEs' perceptions about the degree to which customer requests and demands generally provide them with an opportunity, or hinder their ability to perform their job tasks.

As noted earlier, research by Lazarus and Folkman (1984) suggests that responses to demands are contingent on individual differences or situations. These variables then affect the way individuals evaluate (appraise) and cope with demands. Accordingly, it is necessary and useful for both researchers and practitioners to identify those factors that influence appraisal of customer demands.

Marketing researchers have largely ignored how FLEs appraise customer demands as challenges or hindrances and what factors may shape appraisal of customer demands as challenges or hindrances. Therefore, research to refine the concept of customer demands and empirically test and demonstrate their difference is needed. The consistency existing in the management and marketing literature supporting the notion that responses to demands vary as a function of individual differences or environmental situations (e.g., Lazarus & Folkman, 1984) may lead to more enlightened inquiry on the matter. Culbertson, Huffman, and Alden-Anderson (2010) provide empirical evidence that the situational variable of leader-member exchange leads to a reduction in hindrance demands, thereby reducing work-family conflict. This lends support

to the idea that it is valuable to investigate personal resources (e.g., intrinsic and prosocial motivations) that influence FLEs' appraisal towards challenge and hindrance demands.

Table 1
A Table of Empirical Studies on Customer Demands

Study	Sample	Literature Review	Customer demands
Wang and Netemeyer (2002)	1) Real estate sales force (<i>n</i> = 147) 2) Billboard advertising sales people (<i>n</i> =173)	Drawing on social cognitive theory, the study found that customer demands positively influence on salespeople's learning effort, resulting in a greater sales performance.	Challenge
Dormann and Zapf (2004)	1) Flight attendants, travel agency workers, and sales clerks (<i>n</i> =591)	The study found that customer demands (customer-related social demands) have a positive influence on frontline employees' burnout.	Hindrance
Jaramillo and Mulki (2008)	1) Salespeople from pharmaceutical company in U.S. (<i>n</i> = 344)	The study found that customer demands have a positive influence on salespeople's effort. In addition, customer demands strengthen the positive influence between supportive leadership and intrinsic motivation and self-efficacy.	Challenge
Cano, Sams, and Schwartz (2009)	1) Not-for-profit social service providers (<i>n</i> = 533)	The study found that customer demands have a positive influence on job stress, resulting in physical health symptoms.	Hindrance

Continued

Study	Sample	Literature Review	Customer demands
Karatepe, Yorganci, and Haktanir (2009)	1) Customer service representatives and bank tellers (<i>n</i> = 146)	The study found that a type of customer demands (disproportionate customer expectations) does not have an influence on frontline employees' emotional exhaustion whereas another type of customer demands (ambiguous customer expectations) has a positive influence on the same construct.	Hindrance
Song and Liu (2010)	1) Call-center employees (<i>n</i> = 310)	The study found that a type of customer demands (disproportionate customer expectations) have a positive influence on employees' emotional exhaustion through surface acting	Hindrance
Jaramillo, Mulki, and Boles (2012)	1) Sales directors from a leading direct selling organization (<i>n</i> = 1455)	The study found that customer demands have a positive influence on experienced meaningfulness whereas customer demands do not have a significant influence on felt stress.	Challenge
Johnson, Holdsworth, and Zapf (2013)	1) Retail sector employees (<i>n</i> = 273)	The study found that customer demands (customer-related social demands) have a positive influence on frontline employees' burnout.	Hindrance
Jung's dissertation (2014)	1) Insurance employees (<i>n</i> = ??)	How are two different forms of appraisal from customer demands channeled to either the energy depletion process/or the motivational process on job-related outcomes?	Challenge or Hindrance

2.3 Intrinsic and Prosocial Motivations

In the marketing context, scholars have identified the concept of motivation as a personality-level trait in employee settings (e.g., Kohli, 1985; Anderson & Oliver, 1987). Because motivation leads FLEs to participate in the implementation of service innovation (Cadwallader, Jarvis, Bitner, & Ostrom, 2010) and practice adaptive behavior (Weitz, Sujan, & Sujan, 1986), an understanding of FLEs' motivation is important to explanations of how FLEs better serve customers.

Drawing on self-determination theory, marketing research has generally agreed that motivation of FLEs can be categorized as two different types: 1) intrinsic motivation and 2) extrinsic motivation. For example, many supervisors believe the key factor to motivating employees is to provide the employees with extrinsic rewards. Thus, marketing scholars and practitioners alike support the idea that extrinsic rewards or incentives (i.e., extrinsic motivation) are instrumental in both motivating FLE behaviors toward customers and predicting FLE productivity (e.g., Oliver & Anderson, 1994; Pullins, 2001). Perhaps more interesting is research showing that work itself can enhance job satisfaction when the given task is enjoyable. This relates to the concept of intrinsic motivation. Intrinsic motivation is strongly associated with emotional rewards FLEs obtain simply from doing their jobs (Snipes, Oswald, LaTour, & Armenakis, 2005). Here, intrinsic motivation refers to the willingness to expend one's effort on the basis of enjoyment of and interest in the work itself (Ryan & Deci, 2000). In the service/sales context, intrinsically motivated employees perform better and exert more selling effort (e.g., Hoffman & Ingram, 1992; Ingram, Lee, & Skinner, 1989). In sum, the marketing literature has clearly differentiated between intrinsic and extrinsic motivations, and

investigated the impact of these two separate sources of motivation on psychological and behavioral outcomes of FLEs.

In addition to the research on the two aforementioned sources of motivation, the marketing literature identifies prosocial motivation as a third source. Prosocial motivation refers to the willingness to expend one's effort to benefit other people (Batson, 1987) and is conceptualized as a work value that reflects a concern for other people (De Dreu, 2006). Interest in prosocial-oriented values has been largely facilitated by prior research directed toward understanding the motive of FLEs who exhibit extra-role behaviors that are beyond formal role requirements (e.g., Brief & Motowidlo, 1986; Bettencourt & Stephen, 1997; Lee, Nam, Park, & Lee, 2006). Several key drivers of FLEs' prosocial actions have been explored in prior research, including empowerment (e.g., Lee, Nam, Park, & Lee, 2006) and workplace fairness (Bettencourt & Brown, 1997). More recently, research has examined the impact of prosocial motivation on public service jobs including firefighters and fundraising callers and has shown that prosocially motivated employees have enhanced persistence and productivity (Grant, 2008). This suggests that prosocial motivation is derived from a distinctly different source and, thus, is quite distinguishable from intrinsic motivation.

As noted, prior research has clearly differentiated prosocial motivation from intrinsic motivation in work contexts (e.g., Grant, 2008). In his seminal work, Grant (2008) argued that the two forms of motivation (i.e., intrinsic and prosocial) represent different theoretical assumptions regarding the drivers of motivation. Grant's work held that both forms of motivation represent generally enduring beliefs with regard to the desirability of different aspects of job-related outcomes (Lyons, Higgins & Duxbury,

2010). However, his work suggests that each form of these two motivations uniquely reflects specific manifestations of employee values. Thus, previous literature indicates that prosocial and intrinsic motivations serve as two separate innate resources (values), which involve generally enduring beliefs about the desirability to accomplish work-related outcomes.

While motivation has been investigated in marketing as a key underlying antecedent of FLEs' attitudes and/or behaviors across a wide range of literature in sales force management (e.g., Kohli, 1985; Weitz, Sujan, & Sujan, 1986; Oliver & Anderson, 1994), no research has examined how FLEs' motivation shapes or influences appraisal of customer demands in terms of FLEs' well-being as either challenges or hindrances. Specifically, based on the extended JD-R model, I expect that these two innate resources (i.e., intrinsic and prosocial motivations) synergistically interact to exert influence on both challenge and hindrance appraisals of customer demands.

In the next section, I explain how prosocial motivation is different from intrinsic motivation and why the two forms of motivation may interact to shape perceptions of customer demands.

2.4 Distinguishing between Prosocial and Intrinsic Motivations

In his seminal work, Grant (2008) claimed intrinsic and prosocial motivations involve different underlying assumptions about the driving force of motivation. Prosocial motivation takes a eudaimonic viewpoint by highlighting purpose and meaning as the

catalyst for one's effort, whereas intrinsic motivation takes a hedonic viewpoint by highlighting pleasure and enjoyment as the catalyst for one's effort (Kahn, 1990; Ryan & Deci, 2001; Grant, 2008). Furthermore, Grant (2008, p. 49) clearly argued that intrinsic motivation and prosocial motivation are distinct in the form of self-regulation:

Prosocial and intrinsic motivations involve different levels of autonomy in self-regulation. When intrinsically motivated, employees feel naturally drawn, or pulled, toward completing their work. The decision to expend effort is based on personal enjoyment and is thus fully volitional, self-determined and autonomous. When prosocially motivated, employees are more likely to push themselves toward completing their work. The decision to expend effort is less autonomous, as it is based more heavily on conscious self-regulation and self-control to achieve a goal. (...) Employees are driven not by inherent interest in the work itself, but rather by introjected goals of avoiding guilt and protecting self-esteem or by identified goals of fulfilling core values and identities.

In addition to self-regulation differences, Grant (2008) highlighted that additional differences between intrinsic and prosocial motivations exist in terms of temporal focus and goal directedness. Intrinsic motivation focuses on the process in the present governed by autonomous self-regulation, while prosocial motivation focuses on the outcome in the future governed by introjected or identified regulation. These differences further suggest that the two forms of motivation are relatively independent of one another. As such, it is here proposed that these two forms of motivation may interact to predict challenge and hindrance appraisals of customer demands, which is central to the current study.

2.5 Interaction between Prosocial and Intrinsic Motivations

A demanding customer's unique need (customer demand) may be viewed by an FLE as a stressful situation, such as that presented by customer mistreatment of the FLE (e.g., Wang, Liao, Zhan, & Shi, 2011). However, the unique customer demand does not necessarily cause stress. Rather, stress is a result of how the stressful situation is interpreted in the eye of an FLE (Kammeyer-Mueller, Judge, & Scott, 2009). This argument is supported by the differential exposure hypothesis (Bolger & Zuckerman, 1995), which suggests that individual difference variables or personal traits may influence the way FLEs interpret or perceive their work environment (Treadway et al., 2005). Further, Lazarus and Folkman (1987) maintain that the extent to which a human interaction is harmful (hindrance) and/or beneficial (challenge) relies heavily on the psychological characteristics that an individual possesses. So again, individual differences variables may be critical factors that influence challenge and hindrance appraisals of customer demands in personal relationships.

In addition, Hobfoll (2001) argues that personal characteristics or individual differences variables (e.g., prosocial motivation, intrinsic motivation) represent important innate resources that aid the process of stress resistance. Prior research suggests that personal attributes lead to different exposure to stressful events (Bolger & Zuckerman, 1995). Moreover, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007) argue that personal characteristics (resources) may influence perception of job demands. Accordingly, personal attributes are resources that serve to alter the way that FLEs perceive or interpret their work experiences (e.g., customer demands) (Ravlin & Meglino, 1987).

Consistent with the existing literature, I develop two hypotheses that use the interaction of individual resources, prosocial motivation and intrinsic motivation, to predict (shape) FLEs' challenge and hindrance appraisals of customer demands. Prosocial motivation refers to the willingness to expend one's effort to benefit other people (Batson, 1987). Intrinsic motivation refers to the willingness to expend one's effort on the basis of enjoyment of and interest in the work itself (Ryan & Deci, 2000).

First, I expect that prosocial and intrinsic motivations synergistically interact to predict higher levels of challenge appraisal of customer demands. Grant (2008) mentions that workers experience their prosocial motivation as more autonomous and/or self-regulated when they have a higher intrinsic motivation. Accordingly, he argues that intrinsically motivated workers feel that their work becomes enjoyable and helping others is valued because doing their tasks is in accordance with self-selected goals. In a line of similar theorizing, when FLEs are intrinsically motivated, they enjoy solving customer problems and/or customer (unique) requests. They are likely to feel autonomy and free choice in their efforts to benefit customers. In this case, FLEs not only enjoy the process of solving customer problems (customer demands), but also value the possible outcomes of helping customers (Gagné & Deci, 2005; Grant, 2008). As a result, when dealing with a demanding customer, FLEs may find that in acting freely to benefit the customer, the experience results in a higher level of challenge appraisal of the customer's demands.

Furthermore, Gebauer, Riketta, Broemer, and Maio (2008) suggest that when accompanied by intrinsic motivation, prosocial motivation will be pleasure-based rather than pressure-based. They claim that pleasure-based prosocial motivation should lead to positive reactivity including positive affect and/or self-actualization because individuals

are more promotion-oriented. Based on this argument, for intrinsically motivated FLEs, prosocial motivation will have a stronger effect on the challenge appraisal of customer demands because FLEs' prosocial motives are likely to be more pleasure-based and promotion-oriented, as FLEs interpret or perceive customer demands as opportunities for personal growth (i.e., promotion focus).

In contrast, when intrinsic motivation is low, prosocial motivation will be less positively associated with the challenge appraisal of customer demands. The absence of intrinsic motivation makes the process of solving customer problems less enjoyable for the FLEs (Grant, 2008). In this case, FLEs will experience their prosocial motivation as more controlled, and accordingly, feel that they ought to deal with demanding customers. The feeling of pressure threatens FLEs' abilities to fulfill their fundamental psychological needs for volition or autonomy, and it eventually becomes prevention-oriented (Gebauer et al., 2008). As a result, they are less likely to interpret or perceive customer demands as opportunities for personal growth, resulting in a lower level of the challenge appraisal. Therefore,

Hypothesis 1a: The positive influence of prosocial motivation on challenge appraisal will be stronger when intrinsic motivation is high than when intrinsic motivation is low.

Second, extending JD-R theory with the differential exposure hypothesis, two important innate resources (i.e., prosocial motivation, intrinsic motivation) interact to influence hindrance appraisal of customer demands. Specifically, I expect that when intrinsic motivation is high, prosocial motivation exerts a stronger negative influence on the hindrance appraisal of customer demands.

As mentioned before, individuals may generate two fundamentally different motives for benefiting others based on whether individuals are intrinsically motivated or not: 1) the motive to gain pleasure from helping others and 2) the motive to fulfill a duty (i.e., pressure). When intrinsic motivation is high, prosocial motivation is characterized as pleasure-based (Gebauer et al., 2008) because FLEs enjoy the process of solving customer requests and they are likely to feel autonomy to the benefit of customers. Therefore, FLEs are less likely to perceive or interpret customer demands as obstacles and/or barriers to successfully execute their job role. As a result, they will reduce the negative image of perceived customer demands by altering their own appraisal of stressful situations (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). Accordingly, when intrinsic motivation is high, prosocial motivation will be a stronger negative influence on the hindrance appraisal of customer demands.

By contrast, with relatively low intrinsic motivation, FLEs do not enjoy solving customer problems when dealing with customer demands. In this case, prosocial motivation should be pressure-based (Gebauer et al., 2008), as they feel that benefiting customers (e.g., resolving unreasonable requests) is likely to fulfill their own duty and thus become less enjoyable. Therefore, they feel pressured to successfully resolve the demanding requests in order to benefit customers. Prior studies found that pressure-based prosocial motivation is positively related to negative affect (Gebauer et al., 2008), role overload and work-family conflict (i.e., hindrance demands, Bolino & Turnley, 2005). In a line of similar theorizing, when intrinsic motivation is low, FLEs' prosocial motive takes a pressure-based perspective because FLEs' feeling of autonomy is weakened (Gagné & Deci, 2005). As a result, they are more likely to appraise customer demands as

hindrances because psychological costs (i.e., pressure to benefit customers) will undermine their capabilities toward self-determined choice (Grant, 2008). This psychological undermining of FLEs' self-determination and autonomy, interferes with their attainment of meaningful outcomes (e.g., resolving customer demands) (Crawford, LePine, & Rich, 2010). Therefore,

Hypothesis 1b: The negative influence of prosocial motivation on hindrance appraisal will be stronger when intrinsic motivation is high than when intrinsic motivation is low.

2.6 Challenge Appraisal of Customer Demands

Challenge appraisal refers to FLEs' perception of the extent to which customer requests and demands generally provide them with an opportunity for learning and on-the-job growth. Applying the JD-R perspective with theory regarding appraisal of demands, challenge appraisal of customer demands will exert a positive influence on job engagement. When FLEs are more inclined to appraise customer demands as challenges, they tend to experience positive emotions (e.g., eagerness, exhilaration) and take an active or problem solving style of coping (e.g., increases in effort) (Carver, Scheier, & Weintraub, 1989). In addition, challenge appraisal of customer demands enables FLEs to be more willing to invest themselves to help customers because they are likely to see customer demands as the opportunity for their personal growth. (Kahn, 1990; Lazarus & Folkman, 1984). In this regard, challenge appraisal should enhance FLEs' job engagement. This is consistent with previous empirical work, such that perception of

challenging job demands lead to a higher level of engagement (Crawford, LePine, & Rich, 2010).

Further, prior research has shown that the experience of meaningfulness and positive emotions emanating from being challenged creates higher levels of engagement (Erez & Isen, 2002; May, Gilson, & Harter, 2004). Likewise, perceiving opportunities in the face of stressful situations leads individuals to become engaged in their tasks (Britt, Adler, & Bartone, 2001).

Consistent with the existing literature, as FLEs perceive customer demands as challenges for learning or on-the-job growth, they are more likely to invest energy to adopt an active or problem solving style of coping, which results in greater engagement in their tasks.

Although challenge appraisal of customer demands enhances job engagement of FLEs, it also influences job stress of FLEs. Regardless of the extent to which FLEs perceive customer demands as an opportunity and/or a threat, FLEs' perception of customer demands should generate job stress because increased efforts related to appraisal of customer demands and coping with them lead to strain (e.g., anxiety, tension). This is consistent with a previous argument, such that perceived job demands cause employees to feel exhausted and worn out (Crawford, LePine, & Rich, 2010). Therefore,

Hypothesis 2a: Challenge appraisal exerts a positive influence on job engagement.

Hypothesis 2b: Challenge appraisal exerts a positive influence on job stress.

2.7 Hindrance Appraisal of Customer Demands

Hindrance appraisal refers to FLEs' perception of the extent to which customer requests and demands generally interfere with their ability to successfully execute their job role. In contrast to challenge appraisal of customer demands, when FLEs perceive customer demands as barriers or hindrances, they tend to experience negative emotions (e.g., fear) and take a passive or emotional style of coping (Crawford, LePine, & Rich, 2010). In this case, FLEs may be less willing to invest themselves, and may feel unable to adequately deal with customer demands. Consequently, FLEs are less apt to be motivated to actively resolve difficult situations, becoming disengaged in their tasks (Kahn, 1990), and their feeling of being "stressed out" is amplified.

The psychological threats emanating from perception of hindering situations are strongly related to lower levels of motivation and engagement (Porath & Erez, 2009). In a similar way, Hobfoll (1989) argues that when individuals perceive demands as potentially harmful (hindrance appraisal), they are likely to direct energy and time to coping with the difficult situation. While this may not specifically give rise to anxiety or tension, it may instead lead to decreased engagement by preventing the attainment of desirable outcomes. Further, a strong perception of hindering job demands is invariably related to involuntary physiological responses that interfere with individual ability (Lazarus, 1999; Motowidlo, Packard, & Manning, 1986) and will lead to higher levels of job stress and make individuals become disengaged in their tasks. This is consistent with empirical work that found perception of the hindering job demands leads to a lower level of engagement while creating burnout (Crawford, LePine, & Rich, 2010).

When FLEs appraise customer demands as obstacles or barriers to execute their tasks, they strongly believe that effort aimed at meeting negative demands is useless, and

they are more likely to cognitively and emotionally respond to customer demands. Accordingly, hindrance appraisal of customer demands has an undesirable effect on FLEs' job engagement while generating job stress of FLEs.

Hypothesis 3a: Hindrance appraisal exerts a negative influence on job engagement.

Hypothesis 3b: Hindrance appraisal exerts a positive influence on job stress.

2.8 Job Engagement

Kahn (1990) describes job engagement as a unique and critical motivational concept: the harnessing of an individual's full-self with regard to physical, cognitive, and affective energies on his/her own goal achievement. This conceptualization suggests linkages between engagement and important job outcomes (e.g., job performance, job satisfaction). Engaged employees tend to spend their physical, cognitive, and affective energies on personal goal-attainment (Nahrgang, Morgeson, & Hoffmann, 2011), and accordingly, perform better compared to less engaged counterparts. Rich, LePine, and Crawford (2010) indicate that each of three dimensions plays a unique role on contributing to role performance. First, physical energies facilitate behavioral efforts necessary for the pursuit of role-related goals. Second, cognitive energies fuel behavioral performance by enabling employees to be more vigilant, attentive, and focus-oriented. Finally, affective energies contribute to increased performance by allowing employees to meet the emotional demands of their job-related roles, resulting in more complete and authentic outcomes. In this regard, a meta-analytic review has shown that increasing job engagement positively improves desired outcomes (Zablah et al., 2012). Therefore, I expect that FLEs' job engagement exert a positive influence on job performance.

In addition, the JD-R model suggests that engaged FLEs have a high level of job satisfaction in the workplace, compared to those less engaged counterparts. Schaufeli, Bakker, and Van Rhenen (2009) mention that job engagement increases the likelihood of employees' attainment of work goals. When employees believe that their own goals are successfully achieved, they are likely to experience positive feelings, resulting in enhanced job satisfaction. Schaufeli and Bakker (2004) argue that the increases in job engagement lead employees to experience a positive state of emotion and motivational fulfillment. Moreover, research has shown that engaged employees are less likely to be absent in their workplace because they think that their work conditions are favorable and desirable (Schaufeli, Bakker, & van Rhenen, 2009). Further, it has been found that job engagement is associated with good health and positive affect (Sonnentag, 2003). Building upon prior research, FLE's job engagement should exert a positive influence on job satisfaction because it creates positive working conditions and good health conditions.

In sum, I expect that FLEs' job engagement will positively influence FLEs' job outcomes including job performance and job satisfaction.

Hypothesis 4a: Job engagement exerts a positive influence on job performance.

Hypothesis 4b: Job engagement exerts a positive influence on job satisfaction.

2.9 Job Stress

The JD-R model and other stress-related theories (e.g., conservation of resources theory; Hobfoll, 1998) suggest that job stress has a harmful effect on employees' job outcomes (Bakker, Demerouti, & Verbeke, 2004). Job stress refers to

nervousness/anxiety related to the job, negatively influencing an employee's emotional and physical health (Cox, Griffiths, & Rial-Gonzalez, 2000; Netemeyer, Maxham, & Pullig, 2005). It is widely accepted that customer service jobs are demanding and stressful (De Jonge & Dormann, 2003), and accordingly, job stress can detrimentally affect FLEs' job outcomes.

First, when FLEs are stressed, they will likely fail to perform at full capacity because coping resources are devoted to handling stress (Cohen & Williamson, 1991, Hobfoll, 2002). Margolis and Kroes (1974) mention that job stress is a work condition that disrupts psychological and physiological responses. Similarly, Jaramillo, Mulki, and Boles (2012) argue that job stress can result in involuntary physiological reactions, and as a result, can negatively influence FLEs' job performance. Thus, it is here argued that job stress will negatively affect job performance.

Second, job stress is a critical determinant of job strains such as anxiety and exhaustion (Jex, 1998). Such strains influence negative job attitudes because they physically and mentally deplete worker's energy (Crawford, LePine, & Rich, 2010). In addition, Teas (1983) mentions that job stress is negatively associated with job satisfaction. Thus, it is expected that job stress will negatively affect job satisfaction.

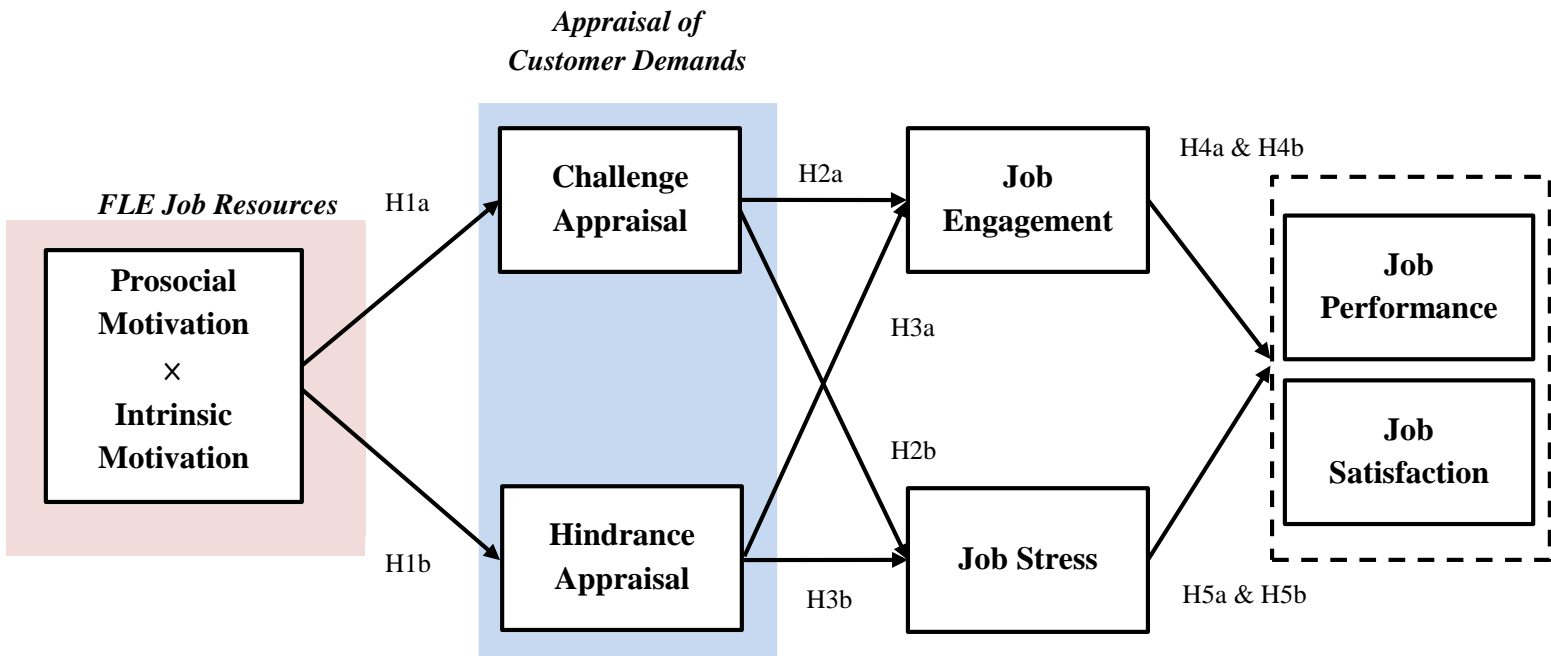
Hypothesis 5a: Job stress exerts a negative influence on job performance.

Hypothesis 5b: Job stress exerts a negative influence on job satisfaction.

Figure 1 presents the conceptual model of the study and illustrates the hypothesized relationships among constructs investigated in the study.

Figure 1

Conceptual Model and Hypotheses



CHAPTER III

RESEARCH METHODOLOGY

The purpose of this chapter is to describe the quantitative research procedures that are employed in this dissertation to test the proposed hypotheses in the preceding chapter. This chapter begins with a discussion of research methodology including field survey design and data sample chosen for this study. After that, the chapter provides the measures for constructs and demographic variables used in this study. Finally, the chapter describes proposed analyses for testing the hypotheses.

3.1 Research Method and Design

To test the proposed hypotheses developed in the previous chapter, a field survey is conducted. The ability to test the proposed model requires a research design that allows input from frontline employees (FLEs) who regularly interact with customers. Before I conducted the main study, two pretests were conducted to develop measures for the two new constructs (i.e., challenge appraisal and hindrance appraisal). I generally adhered to Churchill's (1979) suggested approach to scale development, taking special care to ensure that 1) scale items adequately reflect the conceptual domains of challenge and hindrance appraisals, 2) scale items of each appraisal are highly reliable, and 3) the measures for the two types of appraisal clearly discriminate from one another.

The survey method is used for two primary reasons. First, it enables participants to complete the questionnaire as his/her time allows (i.e., flexibility). Second, the survey method allows me to collect detailed information for research objectives with limited time and resources. Previous studies have measured most of the constructs examined in this dissertation (except challenge and hindrance appraisals) and have demonstrated adequate reliability and validity for these measures using a survey method. Given the benefits of using the survey method documented by previous studies, the selection of the survey method is deemed appropriate for this dissertation.

3.2 Sample

Participants in the main study are FLEs at a major insurance company located in South Korea. The insurance company offers a range of policies and coverage options for a variety of insurance products such as auto, health, life, and property insurance. In the company, insurance agents mainly introduce and sell the different types of insurance policies to current and potential customers and try to find the best insurance plans for them. In addition, insurance agents consult current customers regarding a claim on any insurance policy. Thus, the fundamental job of insurance agents is to contact customers to answer their inquiries related to any insurance policy.

These subjects are deemed appropriate for the proposed model for two reasons. First, insurance consultants are the ones frequently contacting customers and the ones engaging in behaviors to satisfy customer unique requests or provide customized insurance plans (i.e., regularly interacting with demanding customers). Second, given the large amount of time that they spend in contact with customers, insurance consultants are in position to (potentially) be influenced by demanding customers (e.g., opportunistic customers, customers who have high expectations, or emotionally demanding customers).

3.3. Overall Data Collection Procedure

A major insurance company from South Korea was selected for dataset collection in the main study. The chief executive officer (CEO) of the insurance company was contacted for approval of the study. After discussions with supervisors in the insurance company, survey questionnaires were distributed to FLEs and their supervisors onsite, during a two month period.

I attempted to survey all FLEs at the insurance company. Two research assistants helped in the data collection procedure. Before administering the survey, I gave the research assistants detailed training and written instructions for the survey procedure. The survey questionnaire was distributed to FLEs in five offices of the insurance company. The employees held a meeting prior to business hours. At this meeting, the research assistants explained the nature and purpose of the study and then provide instructions for completing the questionnaire. The research assistants assured employees that their specific responses are completely confidential and cannot be traced back to supervisors. However, to match the responses with supervisor performance evaluations, it was necessary to ask the FLEs to include their names. I accomplished this by having respondents sign and print their names on the consent forms; once the matching process was completed, I deleted all information that would identify particular respondents. In addition, employees were told that participation is absolutely voluntary, with no penalty if they choose not to participate or decide to withdraw at any time. I further informed them that no one at the company will be able to determine whether or not they participated in the study. To ensure their confidentiality, respondents placed completed surveys in envelopes and signed across the label before returning the completed surveys directly to the research assistant. During the entire process, neither supervisors nor corporate managers were involved in the process of collecting the survey data.

Finally, supervisors provided their subordinates' performance evaluations in separate rooms. Each supervisor evaluated the performance of all FLEs under his or her supervision. The completed performance evaluations were delivered directly to the research assistants upon completion. After collecting the survey data, one of research

assistants gathered the FLE and supervisor surveys and sent them to me. I matched FLE surveys with their supervisors' evaluations. After that, I eliminated all names prior to data analysis.

3.4. Measures

I used or adapted previously validated measures for all constructs except challenge and hindrance appraisals; I developed measures for these constructs as part of this research. Initially, this section provides a discussion of scale development procedures for both challenge and hindrance appraisals. Next, it provides a discussion of adapted measures and source of the scale items employed. For simplicity of presentation, items used in the dissertation are presented in tables throughout this chapter.

For the main study, the survey instrument was written in English and then translated into Korean. In order to minimize any systematic bias (i.e., translation bias), the translated version of the survey questionnaire was assessed by four bilingual judges (i.e., English and Korean). Furthermore, the survey was checked for accuracy using the back-translation process in which the translated version reflects the same item contents as the original version.

3.4.1 Challenge Appraisal and Hindrance Appraisal

In this dissertation, challenge appraisal refers to FLEs' perception of the extent to which customer requests and demands generally provide them with an opportunity for

learning and on-the-job growth. In contrast, hindrance appraisal refers to FLEs' perception of the extent to which customer requests and demands generally interfere with their ability to successfully execute their job role. Figure 2 displays the iterative procedures I used to develop measures of these new constructs.

The initial step in the suggested procedure for developing new measures involves specifying the domain of the construct (Churchill, 1979). With an extensive review of previous literature, I clearly delineated what should (not) be included in the definitions of challenge and hindrance appraisals. Previous research has precisely described challenge demands as reflecting an opportunity for learning and on-the-job growth while hindrance demands as hindering or interfering with employees' ability to perform their job tasks (e.g., LePine, Podsakoff, & LePine, 2005; Podsakoff, LePine & LePine, 2007). Note, however, that in prior work, measures have focused on specific demands and the degree to which they are present in a work situation. In contrast, I have defined (and will measure) challenge appraisal and hindrance appraisal in a more global fashion. This approach allows me to assess an individual FLE's assessment of overall customer demands and does not require me to categorize particular demands as challenge vs. hindrance demands. Based on the previous conceptualization of challenge and hindrance job demands, I created the definitions of challenge and hindrance appraisals of customer-based job demands. In order to ensure that the definitions exactly reflect the domain of the constructs, two marketing professors (committee members) reviewed and modified the definitions of the two forms of the appraisal.

Next, I used a series of pretests to develop a set of scale items that measure challenge and hindrance appraisals of customer demands. I started by generating a

number of items to adequately reflect the conceptual domain of challenge appraisal of customer demands. These items assessed FLEs' perceptions of the extent to which customer requests and demands generally provide them with an opportunity for learning and on-the-job growth (e.g., "My customers often make requests that require me to learn new ways to do things," "The customers I serve keep me on my toes with challenging requests," see Table 2). The direct perception measures of challenge appraisal avoid industry- and company-specific wording and contents. In order to ensure that the items adequately reflect the definition of challenge appraisal, I asked three FLEs from different industries for input. In addition, two marketing professors (committee members) reviewed and modified the items, resulting in an initial pool of 10 items.

Using the same approach noted above, I generated a number of items to adequately reflect the conceptual domain of hindrance appraisal of customer demands. The items attempted to measure FLEs' perceptions of the extent to which customer requests and demands generally interfere with their ability to successfully execute their job role (e.g., "My customers often make requests that actually make it more difficult for me to serve them," "My customers often make requests that hinder my ability to do my job," see Table 2). In order to ensure that the items adequately reflected the definition of hindrance appraisal, I asked three frontline employees from different industries for input. In addition, two marketing professors (committee members) reviewed and modified generated items, resulting in an initial pool of 5 items.

The measurement format asked FLEs to rate the extent to which they agree with challenge appraisal or hindrance appraisal statements on a seven-point Likert scales, where 1 = *Strongly Disagree* and 7 = *Strongly Agree*.

First pretest: Before conducting the first pretest, Institutional Review Board (IRB) approval was obtained because the pretest involves human subjects (IRB-BU1412). Frontline contact employees were recruited through the Amazon's MTurk system. For the first pretest, I sampled 112 MTurk participants, restricting participation to qualified workers with 1) an approval rate of at least 95% and 2) number of HITs approved greater than 500. ("HITs" denote individual tasks that workers have completed in the past.) Participants received \$.50 and were told that the survey would take less than 10 minutes. I directed participants to a web-based survey. Although the MTurk system provides only one worker identification (ID) per person and every worker can only participate in a task one time, I checked IP addresses of all participants to protect against workers participating in the survey several times. Among 112 participants, 25 participants failed an attention check measure embedded in the survey, and 3 participants did not have customer contact jobs. Thus, a sample of 84 participants remained for the analysis.

I first administered the initial 10 item challenge scales and 5 item hindrance scales to FLEs who are currently working as a restaurant server, retail associate, real estate agent, travel agent, cashier, or technical support service representative. I submitted the data to an exploratory factor analysis using principal axis factoring with varimax rotation. Three factors were extracted with eigenvalues greater than 1.00 (2 for challenge appraisal and 1 for hindrance appraisal). The hindrance appraisal factor with initial 5 items accounted for the largest amount of variance (27.92%), followed by the first challenge appraisal factor with 5 items (25.92%) and the second challenge appraisal factor with other 5 items (10.85%). The first two factors accounted for almost the same amount of

variance. Based on the results, 5 items of the second challenge appraisal factor (indicated by * in Table 2) were removed on the following grounds: 1) on reflection, the second challenge appraisal factor is less relevant to the nature of challenge appraisal compared with the initial factor, and 2) the inter-item correlations are lower than expected (especially important to ensure convergent and discriminant validity in the main study). A review of these items suggests that none is needed to represent important facets of challenge appraisal that are not already represented by items comprising the initial challenge factor.

With the remaining 5 challenge appraisal items and 5 hindrance appraisal items, I re-submitted the data to an exploratory factor analysis using principal axis factoring with a varimax rotation. Two factors were extracted with eigenvalues greater than 1.00 (1 for challenge appraisal and 1 for hindrance appraisal). The hindrance appraisal factor with 5 items accounted for 39.55% of variance whereas the challenge appraisal factor with 5 items accounted for 28.87% of variance. Cronbach's alpha coefficients of hindrance and challenge appraisals are .91 and .82, respectively.

Table 2

Initial Pool of Challenge and Hindrance Appraisal Items

Challenge appraisal (7 point Likert scale, 1 = *Strongly Disagree* to 7 = *Strongly Agree*)

1. The customers I help often make challenging requests.
 2. My customers often make requests that require me to learn new ways to do things.
-

-
3. The customers I serve keep me on my toes with challenging requests.
 4. The customers I serve often make requests that require me to learn new ways to compete job tasks.
 5. The customers I serve often make requests that ultimately allow me to become better at my job.
 6. The customers' demands often make me work hard to help them.*
 7. Working to meet customer requests is just part of the job.*
 8. Customer requests sometimes lead me to provide better service.*
 9. Requests from customers allow me to serve them better.*
 10. Customer requests often make me work at full capacity to better serve them.*

Hindrance appraisal (7 point Likert scale, 1 = *Strongly Disagree* to 7 = *Strongly Agree*)

1. My customers often make requests that actually make it more difficult for me to serve them.
2. My customers often make requests that hinder my ability to do my job.
3. My customers' requests often slow down my ability to help them.
4. My customers often make unreasonable requests that interfere with my ability to help them.
5. I often receive requests from my customers that "slow me down."

* Removed items of challenge appraisal for the second pretest

Second pretest: Based on the results of the first pretest, I purified the resulting measures and generated additional items for challenge appraisal. A review of the remaining items to assess challenge appraisal led me to develop additional items to more fully cover the domain of the construct. As Churchill (1979, p. 68) recommended,

researchers should include additional items with “slightly different shades of meaning” because the slightly different item statements may provide a better foundation for the final measure. I added four additional items to better reflect the domain of challenge appraisal, resulting in 9 items for the construct. The five hindrance appraisal items were re-tested with the second pretest without any additional measures.

Before conducting the second pretest, I submitted a modification request for the original IRB protocol. The modification request was approved (IRB-BU1412). For the second pretest, I sampled 132 MTurk participants, restricting participation to qualified workers with 1) an approval rate of at least 95% and 2) number of HITs approved greater than 1000. Participants received \$.75 and were told that the online survey would take less than 10 minutes to complete. As before, I checked IP addresses of all participants to protect against workers participating in the survey several times. Among 132 participants, 10 participants failed to pass the embedded attention check. Thus, a sample of 122 participants remained for the pretest analysis.

I administered the 9 item challenge scales and 5 item hindrance scales to FLEs who are currently working as a restaurant server, bank teller, retail associate, real estate agent, receptionist, cashier, or technical support service representative. I submitted the data to an exploratory factor analysis using principal axis factoring with varimax rotation. Two factors were extracted with eigenvalues greater than 1.00 (1 for challenge appraisal and 1 for hindrance appraisal). The Challenge appraisal factor with initial 9 items accounted for the largest amount of variance (37.55%), followed by the hindrance appraisal factor with 9 items (30.47%). Once I closely looked at the inter-correlation matrix, 3 items of the challenge appraisal construct (indicated by * in Table 3) were

deleted because the inter-item correlations of these 3 items are lower than expected. With the iterative measure development process, 6 items of challenge appraisal and 5 items of hindrance appraisal were finally generated for the main study.

Cronbach's alpha coefficients for challenge and hindrance appraisals are .89 and .95 respectively. The main study will validate convergent and discriminant validity of the two different forms of appraisal, in addition to testing the hypothesized relationships.

Figure 2

The Iterative Procedure for Developing Measures

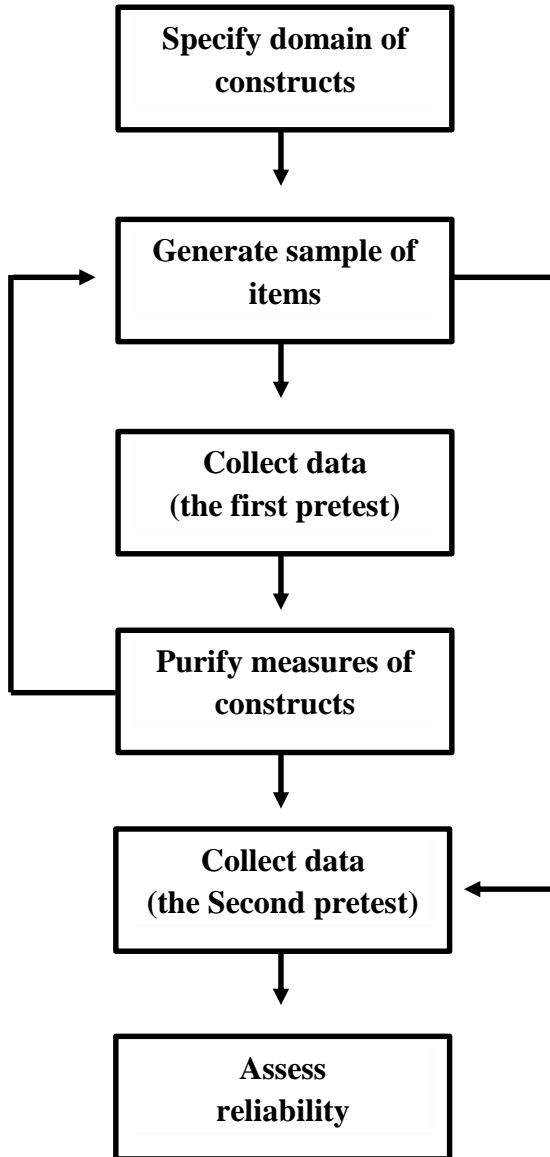


Table 3

Challenge and Hindrance Appraisal Items

Challenge appraisal (7 point Likert scale, 1 = *Strongly Disagree* to 7 = *Strongly Agree*)

1. My customers often make requests that require me to learn new ways to do things.
2. The customers I serve often make requests that require me to learn new ways to compete job tasks.
3. The customers I serve often make requests that ultimately allow me to become better at my job.
4. I often learn new ways to do job tasks as a result of customer requests.
5. Customer requests allow me to continually learn more about job tasks.
6. Requests from customers often provide an opportunity to apply new skills to complete job tasks.
7. The customers I help often make challenging requests.*
8. The customers I serve keep me on my toes with challenging requests.*
9. Requests from customers provide an opportunity to acquire new knowledge about how to help customers.*

Hindrance appraisal (7 point Likert scale, 1 = *Strongly Disagree* to 7 = *Strongly Agree*)

1. My customers often make requests that actually make it more difficult for me to serve them.
 2. My customers often make requests that hinder my ability to do my job.
 3. My customers' requests often slow down my ability to help them.
 4. My customers often make unreasonable requests that interfere with my ability to help them.
-

5. I often receive requests from my customers that “slow me down.”

* Removed items for challenge appraisal; the remaining items are the final scale measures.

3.4.2 Prosocial Motivation and Intrinsic Motivation

I assessed prosocial motivation (e.g., “It is important to me to have the opportunity to use my abilities to benefit others”, see Appendix A) with a five-item scale adapted from Grant and Sumanth (2009). A prior study exhibited excellent levels of internal consistency reliability ($\alpha = .96$, Grant & Sumanth, 2009). All items used response anchors of 1 = *Strongly Disagree* to 7 = *Strongly Agree*.

In addition, I measured intrinsic motivation with a four-item scale adapted from Grant (2008). A prior study exhibited acceptable levels of internal consistency reliability ($\alpha = .71$, Grant, 2008; $\alpha = .91$, Grant & Berry, 2011). Respondents were asked, “Why are you motivated to do your work?” The four items (e.g., “Because I enjoy the work itself”) were assessed on 7-point Likert scales ranging from 1 = *Strongly Disagree* to 7 = *Strongly Agree*. Table 4 shows scale items of both prosocial and intrinsic motivations.

Table 4

Prosocial Motivation and Intrinsic Motivation Items

Prosocial motivation (7 point Likert scale, 1 = *Strongly Disagree* to 7 = *Strongly Agree*)

1. I get energized by working on tasks that have the potential to benefit others.
2. I like to work on tasks that have the potential to benefit others.
3. I prefer to work on tasks that allow me to have a positive impact on others.
4. I do my best when I'm working on a task that contributes to the well-being of others.
5. It is important to me to have the opportunity to use my abilities to benefit others.

Intrinsic motivation (7 point Likert scale, 1 = *Strongly Disagree* to 7 = *Strongly Agree*)

1. Because I enjoy the work itself.
 2. Because it's fun.
 3. Because I find the work engaging.
 4. Because I enjoy it.
-

3.4.3 Job Engagement

Most existing measures of job engagement have been largely criticized for not fully reflecting the original conceptualization suggested by Kahn (1990), as the degree to which individuals are willing to dedicate their physical, cognitive, and/or emotional energies to the job tasks (Newman & Harrison, 2008; Rich, LePine, & Crawford, 2010).

The most popular and well-known measure of job engagement is the Utrecht Work

Engagement Scale (UWES; Schaufeli & Bakker, 2003). However, the measurement scales are confounded with items that are potentially considered as antecedent conditions. For example, the UWES includes scale items that tap the domain of meaningfulness (e.g., “I find the work that I do full of meaning and purpose”) and job challenge (e.g., “To me, my job is challenging”) at work. Therefore, though the UWES has been widely used in prior studies, I used measurement scales developed by Rich, LePine, and Crawford (2010)—a measure tapping more precisely into Kahn’s engagement concept.

As such, a measure of job engagement has three conceptual dimensions: physical engagement, emotional engagement, and cognitive engagement. Prior research has specified engagement as a higher-order construct in keeping with Kahn’s theorizing and has shown that the second-order factor loadings for multi-dimensions are all positive and statistically significant (i.e., .89 for the physical dimensions, .64 for cognitive dimensions, and .90 for emotional dimension; Rich, LePine, & Crawford, 2010). For this dissertation, a total of 18 items (i.e., 6 items for each dimension) were assessed on 9-point Likert scales ranging from 1 = *Strongly Disagree* to 9 = *Strongly Agree*. The scale items are listed in Table 5.

Table 5
Job Engagement Items

Physical engagement (9 point Likert scale, 1 = *Strongly Disagree* to 9 = *Strongly Agree*)

1. I work with intensity on my job.
2. I exert my full effort to my job.
3. I devote a lot of energy to my job.
4. I try my hardest to perform well on my job.
5. I strive as hard as I can to complete my job.
6. I exert a lot of energy on my job.

Emotional engagement (9 point Likert scale, 1 = *Strongly Disagree* to 9 = *Strongly Agree*)

1. I am enthusiastic in my job.
2. I feel energetic at my job.
3. I am interested in my job.
4. I am proud of my job.
5. I feel positive about my job.
6. I am excited about my job.

Cognitive engagement (9 point Likert scale, 1 = *Strongly Disagree* to 9 = *Strongly Agree*)

1. At work, my mind is focused on my job.
 2. At work, I pay a lot of attention to my job.
 3. At work, I focus a great deal of attention on my job.
-

-
4. At work, I am absorbed by my job.
 5. At work, I concentrate on my job.
 6. At work, I devote a lot of attention to my job.
-

3.4.4 Job Stress

I measured job stress with a four item scale adapted from Netemeyer, Maxham, and Pullig (2005). Originally, three of the items were developed by House and Rizzo (1972) and one item was generated by Netemeyer and his colleagues. A prior study exhibited acceptable levels of internal consistency reliability ($\alpha = .89$, Netemeyer, Maxham, & Pullig, 2005). All items were rated on a seven-point Likert scale, ranging from 1 = *Strongly Disagree* to 7 = *Strongly Agree*. The scale items are listed in Table 6.

Table 6
Job Stress Items

Job stress (7 point Likert scale, 1 = *Strongly Disagree* to 7 = *Strongly Agree*)

1. My job tends to directly affect my health.
 2. At the end of the day, my job leaves me "stressed-out."
 3. Problems associated with work have kept me awake at night.
 4. I feel fidgety or nervous because of my job
-

3.4.5 Job Satisfaction

Instead of global job satisfaction measure, employee job satisfaction was operationalized using an eight-item battery that assesses employee satisfaction with eight specific facets of overall job adopted from the work of Brown and Peterson (1993). Respondents were asked to indicate how satisfied they are with each facet, using 5-point scales ranging from 1 = *Extremely Dissatisfied* to 5 = *Extremely Satisfied*. As previously recommended by Hartline and Ferrell (1996), the eight facet of overall job satisfaction was averaged and operationalized as a single composite indicator. The higher score reflect the higher satisfaction of the current job.

Table 7

Job Satisfaction Items

Job satisfaction (5 point Likert scale, 1 = *Extremely Dissatisfied* to 5 = *Extremely Satisfied*)

1. Your overall job
 2. Your fellow workers
 3. Your supervisor(s)
 4. Your organization's policies
 5. The support provided by your organization
 6. Your salary or wages
 7. Your opportunities for advance with this organization
 8. Your organization's customers
-

3.4.6 Job Performance

Participants' supervisors complete a job performance questionnaire. Three global items were used to assess overall insurance worker performance adapted from Arnold, Flaherty, Voss, and Mowen (2009). Previously, the measurement scale was developed by Brown, Mowen, Donovan, and Licata (2002) with two items ("Overall quantity of work performed," "Overall quality of work performed"), and one item was generated by Arnold and his colleagues ("Overall job performance"). A prior study exhibited acceptable levels of internal consistency reliability ($\alpha = .80$, Arnold, Flaherty, Voss, & Mowen, 2009). Each item was assessed on a nine-point Likert scale bounded by 1 = *Very Poor* to 9 = *Very Good*. The scale items are listed in Table 8.

In addition, I added customer-oriented performance with two items (e.g., "Quality of interactions with customers"). Supervisors scored the items using a nine-point Likert scale anchored by 1 = *Very Poor* to 9 = *Very Good*. The scale items are also listed in Table 8.

Table 8

Job Performance Items

Job performance (9 point Likert scale, 1 = *Very Poor* to 9 = *Very Good*)

1. Overall quantity of work performed.
 2. Overall quality of work performed.
 3. Overall job performance.
-

Customer-oriented performance (9 point Likert scale, *Very Poor* to 9 = *Very Good*)

1. Quality of interactions with customers
 2. Ability to satisfy customer needs
-

3.4.7 Background Variables

In addition to the measures of main constructs listed above, I also collect information about demographic characteristics:

- Gender
- Age
- Length of time in the present job
- Length of time in the industry
- Proportion of time in contact with customers
- Job title
- Education level
- Work experience

3.5 Data Analysis and Hypotheses Testing

As discussed, two pretests were conducted for the scale development process (i.e., challenge appraisal and hindrance appraisal). After that, the data analysis of the main study is conducted, using descriptive and inferential statistics techniques. Data are coded

and analyzed by using the Statistical Packages for Social Sciences (version 18.0, SPSS Inc., Chicago, IL) and Mplus version 6.12.

3.5.1 Stage 1 – Pretests for Scale Development

The pretest for scale development involves an exploratory factor analysis (EFA) to identify the factor structure for measuring challenge and hindrance appraisals of customer demands with initially developed item scales. Based on the results, I tried to generate two completely separate factors for challenge and hindrance appraisals of customer demands, deleting items irrelevant to each factor. The decision criteria to consider a factor as significant was identified by a factor loading greater than 0.5 and an eigenvalue equal to or greater than 1. After extracting two factors with relevant items, Cronbach's alpha coefficients of challenge and hindrance appraisals were used to test the reliability of the scale.

Based on results of the first pretest, I conducted the second pretest to ensure that 1) scale items adequately reflect the conceptual domains of challenge and hindrance appraisals, 2) scale items of each appraisal are highly reliable. The results of the multiple pretests ensure the content or face-validity at some levels and enhance the success of the main study.

3.5.2 Stage 2 – Descriptive Analysis for the Main Study

For the main study, the initial analysis includes means, standard deviations, frequency counts, response rate of survey as well as demographic profiles of survey respondents.

3.5.3 Stage 3 – Exploratory Factor Analysis

Exploratory factor analysis is conducted to identify the factor structure for challenge and hindrance appraisals and job engagement and check the reliability and validity of the items scales. The decision criteria to consider a factor as significant is identified by a factor loading greater than 0.5 and an eigenvalue equal to or greater than 1. Cronbach's coefficient alpha is used to test the internal consistency reliability of the scale items.

3.5.4 Stage 4 – Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) is a multivariate statistical technique in which the primary is to assess the underlying structure of multivariate data. The fourth part of data analysis involves a confirmatory factor analysis to investigate the factor structure for measuring constructs used in the conceptual framework, and check the reliability and validity of the measurement scales.

The measurement model is specified to evaluate the adequacy of the latent constructs based on a number of criteria, including overall fit index, composite reliability,

content validity, convergent validity, discriminant validity, unidimensionality, and multidimensionality for second-order factor (i.e., job engagement).

In this dissertation, the goodness of fit testing is conducted by using several fit statistics such as chi-square test, Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR).

3.5.5 Stage 5 – Structural Equation Modeling

To test the proposed hypotheses, structural equation modeling is employed to see the causal relationships among latent constructs. The conceptual model is path analyzed via Maximum Likelihood estimator by using variance-covariance matrix. The structural equation modeling enables researchers to simultaneously estimate multiple regression equations in a single structural formation. To test the moderation hypotheses, Latent Moderated Structural Equation (LMSE) analysis is implemented using Mplus version 6.12 (Muthén & Muthén, 2010). LMSE approach uses the raw data of observed indicators to estimate the interaction (i.e., prosocial motivation \times intrinsic motivation, Klein & Moosbrugger, 2000). The approach has been shown to be more robust than other interaction methods (Schermelleh-Engel, Klein, & Moosbrugger, 1998).

CHAPTER IV

RESEARCH FINDINGS

This chapter provides the results of data analysis for the proposed hypotheses. Before conducting the main study, I conduct the 3rd and 4th pretests to validate a set of items that measure challenge and hindrance appraisals of customer demands.

First, for the main study, sample characteristics and demographic information are presented. Second, a reliability test is presented to assess the internal consistencies of measures of interest. Third, exploratory factor analysis is conducted to identify the underlying factor structure of two new constructs (i.e., challenge and hindrance appraisals of customer demands) as well as a second-order construct (i.e., job engagement). Fourth, measurement properties and proposed hypotheses are tested by using two-step approaches for assessing structural models, along with common method variance and nested effect tests of the proposed model. Fifth, Latent Moderated Structural Equation analysis is implemented to estimate the hypothesized model, followed by the results of the hypothesis testing. Finally, a discussion of the major findings from this study is presented.

4.1 Third Pretest

Before conducting the third pretest, I submitted a modification request for the original IRB protocol. The modification request was approved (IRB-BU1412). For the third pretest, I sampled 133 MTurk participants, restricting participation to qualified workers with 1) an approval rate of at least 95% and 2) number of HITs approved greater than 1000. Participants received \$.75 and were told that the online survey would take less than 10 minutes to complete. As before, I checked IP addresses of all participants to protect against workers participating in the survey several times. Among 133 participants, 7 participants failed to pass the embedded attention check. In addition, 4 participants did not have customer contact jobs (e.g., truck driver, veterinarian, educator, and security). Thus, a sample of 122 participants remained for the pretest analysis.

I administered the 6 item challenge scales and 5 item hindrance scales to FLEs who are currently working as a restaurant server, bank teller, retail associate, real estate agent, receptionist, cashier, insurance agent or technical support service representative. I submitted the data to an exploratory factor analysis using principal axis factoring with varimax rotation. Two clean factors were extracted with eigenvalues greater than 1.00 (1 for challenge appraisal and 1 for hindrance appraisal). The challenge appraisal factor with initial 6 items accounted for the largest amount of variance (45.46%), followed by the hindrance appraisal factor with 5 items (31.77%). Table 9 shows the results of exploratory factor analysis. In addition, Cronbach's alpha coefficients for challenge and hindrance appraisals are .93 and .94 respectively, indicating potential unidimensionality and satisfactory internal consistency of each scale.

Table 9**Exploratory Factor Analysis with Challenge and Hindrance Appraisals****Total Variance Explained**

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.001	45.461	45.461	4.423	40.207	40.207
2	3.495	31.771	77.232	4.073	37.025	77.232
3	.605	5.504	82.736			
4	.402	3.657	86.393			
5	.358	3.258	89.651			
6	.264	2.397	92.048			
7	.242	2.197	94.245			
8	.213	1.939	96.185			
9	.176	1.603	97.787			
10	.158	1.441	99.228			
11	.085	.772	100.000			

Rotated Component Matrix

	Component	
	1	2
CA 1	.861	.042
CA2	.885	.044
CA3	.808	– .193
CA4	.884	– .041
CA5	.853	– .149
CA6	.839	– .172
HA1	– .106	.905
HA2	– .039	.927
HA3	– .108	.927
HA4	– .063	.780
HA5	– .068	.912

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization

As shown in the Table 10, confirmatory factor analysis represents that the-two factor structure is better than the one-factor structure. The chi-square difference between one-factor structure and two-factor structure is significant ($576.52(1)$, $p < .01$). The results show that challenge and hindrance appraisals are separate constructs. The fit indices for the two-factor measurement model are $\chi^2(43) = 112.87$, $p < .01$; Comparative Fit Index (CFI) = .94 Tucker-Lewis Index (TLI) = .92; Root Mean Square Error of Approximation (RMSEA) = .12; Standardized Root Mean Square Residual (SRMR) = .06, indicating a reasonable fit to the data.

Table 10
Confirmatory Factor Analysis with Challenge and Hindrance Appraisals

Constructs	# of Factor	Result	χ^2 and DF	χ^2 difference	Conclusion
Challenge and Hindrance Appraisals	1-factor Solution	CFI= .46 TLI= .33 RMSEA= .34 SRMR= .26	663.385(44)		
	2-factor Solution	CFI= .94 TLI= .93 RMSEA= .12 SRMR= .06	112.893(43)	550.492(1) $p < .01$	<i>2-factor solution is appropriate</i>

4.1.1 Dimensionality Test for Job Engagement

In addition, I tested dimensionality for a multi-dimensional construct (i.e., job engagement). First, I submitted the data to an exploratory factor analysis using principal axis factoring with varimax rotation. Three factors were extracted with eigenvalues greater than 1.00. Physical engagement factor accounted for the largest amount of variance (71.96%), followed by the emotional (9.05%) and cognitive (5.68%) factors (see Table 11). All rotated factor loadings of items to its corresponding dimension were greater than .70, and there was no cross-loading greater than .50. A 6-item battery for each dimension was averaged to check internal consistency. The internal consistency reliabilities ranged from .96 and .97. Furthermore, the strong correlation among the scales ($r = .70$ to $.79$) supported the second-order factor structure.

Table 11
Exploratory Factor Analysis with Job Engagement

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.954	71.964	71.964	5.607	31.148	31.148
2	1.629	9.049	81.014	5.229	29.050	60.198
3	1.022	5.680	86.694	4.769	26.496	86.694
4	.413	2.295	88.989			
5	.323	1.796	90.785			
6	.254	1.413	92.198			
7	.226	1.255	93.453			
8	.182	1.013	94.466			
9	.167	.930	95.396			
10	.160	.889	96.285			
11	.138	.764	97.049			
12	.126	.702	97.751			

13	.104	.579	98.330		
14	.078	.435	98.765		
15	.068	.375	99.140		
16	.061	.340	99.480		
17	.054	.297	99.778		
18	.040	.222	100.000		

Second, I specified a series of confirmatory factor analyses (CFA). I initially fit the data to a one-factor model in which all 18 items loaded onto a single latent factor. The results of one-factor structure indicated a poor fit to the data ($\chi^2(135) = 1121.67, p < .01$; CFI = .69; TLI = .65; RMSEA = .25; SRMR = .09). Next, I specified a three-factor model in which a 6-item battery for each dimension loaded onto its corresponding factor. The results of three-factor structure indicated a good fit to the data ($\chi^2(132) = 416.82, p < .01$; CFI = .91; TLI = .90; RMSEA = .13; SRMR = .05). As compared to the one-factor solution, the three factor solution showed a significant χ^2 difference (704.85(3), $p < .01$), indicating that the three dimensions appropriately reflect a second-order factor (see Table 12). For the subsequent confirmatory factor analysis, therefore, I use job engagement measure as a second-order factor with three dimensions.

Table 12
Dimensionality Test for Job Engagement

Construct	# of Factor	Result	χ^2 and DF	χ^2 difference	Conclusion
		CFI= .69 TLI= .65 RMSEA= .25	1121.674(135)		

Job Engagement	1-factor Solution	SRMR= .09			
	3-factor Solution	CFI= .91 TLI= .90 RMSEA= .24 SRMR= .05	416.820(132)	704.854(3)	<i>3-factor solution is appropriate</i>

4.1.2 Convergent and Discriminant Validities

Given the conceptual relationships between challenge and hindrance appraisals and other related scales, I conducted the most rigorous test to obtain evidence of discriminant validity. I estimated the measurement model that correlates both challenge and hindrance appraisal scales with each of the multi-item nomological validity constructs (e.g., job engagement) displayed in Table 13. That is, I examined the discriminant validity between the two developed scales and the related constructs by comparing the correlations (Φ) between challenge and hindrance appraisal constructs and the related constructs to their respective average variance extracted (AVE). If the AVE of challenge (hindrance) appraisal is greater than the correlation-squared (Φ^2) between challenge (hindrance) appraisal and a nomologically related construct, discriminant validity is supported. In addition, if the AVE values of constructs are exceeded .50, convergent validity is also supported.

Before conducting confirmatory factor analysis, three job satisfaction scales were averaged and operationalized as a composite index because if I use multiple indicators of the job satisfaction construct, it generates a non-positive definite matrix (this is most likely due to having more parameters than the sample size ($n = 122$)). With a good-fit to the data (e.g., CFA=

.91 and SRMR= .06), the above criteria for both convergent and discriminant validities were satisfied for all multi-item constructs related with both challenge and hindrance appraisals.

However, job satisfaction was highly correlated to both intrinsic motivation and job engagement ($r = .84$ and $.81$ respectively, see Table 13). Therefore, I dropped job satisfaction measure and added turnover intention as another nomological construct to test a measurement model. As the model fit statistics in Table 14 indicate, the measurement model showed a goodfit to the data as well (e.g., CFA= .91 and SRMR= .06).

Both challenge and hindrance appraisals were correlated with nomological validity constructs in the right direction (except the relationship between challenge appraisal and job stress (*ns*), see Table 15), providing evidence of nomological validity.

Further, as shown in Table 16, the completely standardized factor loadings ranged from .79 to .86 for challenge appraisal and ranged from .70 to .94 for hindrance appraisal. AVE estimates of challenge and hindrance appraisal were .69 and .75 respectively. Cronbach's alphas of challenge and hindrance appraisals were .93 and .94 respectively.

Overall, the pretest results show construct, convergent, discriminant validities for both challenge and hindrance appraisals. In addition, the pretest also supports the evidence of nomological validity.

Table 13

Inter-correlation Matrix, Reliability, and CR with Job Satisfaction

Construct	M	SD	AVE	CR	1	2	3	4	5	6	7
1. Challenge Appraisal	5.17	1.13	.69	.93	(.93)						
2. Hindrance Appraisal	3.86	1.50	.75	.94	-.18	(.94)					
3. Prosocial Motivation	5.45	1.12	.76	.93	.58*	-.35*	(.94)				
4. Intrinsic Motivation	4.77	1.74	.87	.96	.56*	-.24*	.40*	(.96)			
5. Job Engagement	7.07	1.67	.79	.92	.69*	-.29*	.75*	.75*	(__)		
6. Job Stress	3.42	1.51	.65	.85	-.02	.60*	-.23*	-.34*	-.20*	(.84)	
7. Job Satisfaction	5.22	1.66	__	__	.50*	-.27*	.43*	.84*	.81*	-.31*	(__)

1. Correlation coefficients are the completely standardized estimates from the Phi matrix of CFA.

2. CR is composite reliability

3. Coefficient alpha (α) is presented along diagonals

4. AVE is Average Variance Extracted

* Significant at $\alpha = 0.05$.

Model fit: $\chi^2(441): 828.559, p < 0.01$; CFA = 0.91; TLI = 0.90; RMSEA = .09, SRMR = .06

Table 14

Inter-correlation Matrix, Reliability, and CR with Turnover Intention

Construct	M	SD	AVE	CR	1	2	3	4	5	6	7
1. Challenge Appraisal	5.17	1.13	.69	.93	(.93)						
2. Hindrance Appraisal	3.86	1.50	.75	.94	-.18	(.94)					
3. Prosocial Motivation	5.45	1.12	.76	.93	.58*	-.35*	(.94)				
4. Intrinsic Motivation	4.77	1.74	.87	.96	.56*	-.24*	.40*	(.96)			
5. Job Engagement	7.07	1.67	.79	.92	.69*	-.28*	.75*	.75*	(__)		
6. Job Stress	3.42	1.51	.65	.85	-.03	.59*	-.22*	-.35*	-.20*	(.84)	
7. Turnover Intention	3.02	1.67	__	__	-.40*	.41*	-.28*	-.71*	-.55*	.54*	(__)

1. Correlation coefficients are the completely standardized estimates from the Phi matrix of CFA.

2. CR is composite reliability

3. Coefficient alpha (α) is presented along diagonals

4. AVE is Average Variance Extracted

* Significant at $\alpha = 0.05$.

Model fit: $\chi^2(441) = 825.177$; CFA = 0.91; TLI = 0.90; RMSEA = .09; SRMR: .06

Table 15**Nomological validity evidence for challenge and Hindrance Appraisals**

Construct	Scale sources				
		α	r	n	p
Prosocial Motivation	Grant & Sumanth (2009)	.94	.58	122	.000
Intrinsic Motivation	Grant (2008)	.96	.56	122	.000
Job Engagement	Rich et al., (2010)	—	.69	122	.000
Job Stress	Netemeyer et al. (2005)	.84	– .03	122	.791
Turnover Intention	Spector et al. (1988)	—	– .40	122	.000

Construct	Scale sources				
		α	r	n	p
Prosocial Motivation	Grant & Sumanth (2009)	.94	– .35	122	.000
Intrinsic Motivation	Grant (2008)	.96	– .24	122	.008
Job Engagement	Rich et al., (2010)	—	– .28	122	.002
Job Stress	Netemeyer et al. (2005)	.84	.59	122	.000
Turnover Intention	Spector et al. (1988)	—	.41	122	.000

Table 16**Factor Loadings of Final Ccales for Challenge and Hindrance Appraisals**

Challenge appraisal	Completely standardized loadings	
	Loading	<i>t</i> value
My customers make requests that require me to learn new ways to do things.	.81	22.93
The customers I serve make requests that require me to learn new ways to complete job tasks.	.84	27.13
The customers I serve make requests that ultimately allow me to become better at my job.	.79	21.25
I learn new ways to do job tasks as a result of customer requests.	.86	29.50
Customer requests allow me to learn more about job tasks.	.84	26.54
Requests from customers provide an opportunity to apply new skills to complete job tasks.	.82	24.08
CR	.93	
AVE	.69	
Cronbach α	.93	

Hindrance appraisal	Completely standardized loadings	
	Loading	<i>t</i> value
My customers make requests that actually make it more difficult for me to serve them.	.88	38.96
My customers make requests that hinder my ability to do my job.	.93	62.06
My customers' requests impede my ability to help them.	.94	63.39

I receive requests from my customers that "slow me down."	.70	14.20
My customers make requests that interfere with my ability to complete my job tasks.	.87	35.95
CR	.94	
AVE	.75	
Cronbach α	.94	

4.2 Fourth Pretest

Before conducting the main study, I conducted a pretest with Korean sales and service workers. The survey instrument was written in English and then translated into Korean (see Appendix A). In order to minimize any systematic bias (i.e., translation bias), the translated version of the survey questionnaire was assessed by four bilingual judges (i.e., English and Korean). Furthermore, the survey was checked for accuracy using the back-translation process in which the translated version reflects the same item contents as the original version. The purpose of the 4th pretest is to ensure that 1) the translation is accurate and valid, and 2) results from the 4th pretest will show similar patterns compared to the results from the 3rd pretest.

Before conducting the 4th pretest, I submitted a modification request for the original IRB protocol, and the modification request was approved (IRB-BU1412). For the 4th pretest, I used a snowball sampling method to reach Korean sales and service workers. A total of 68 participants were recruited through participants' e-mail addresses. Among 68 participants, 15 subjects did not participate in the online survey. In addition, 7 participants did not have customer contact jobs

(e.g., actor, engineering researcher, and employees from manufacturing companies). Thus, a sample of 46 participants remained for the pretest analysis, resulting the response rate of 68%.

4.2.1 Exploratory Factor Analysis

I administered the 6 challenge scales and 5 hindrance scales to FLEs who are currently working as a restaurant server, retail associate, receptionist, cashier, insurance agent or technical support service representative. I submitted the items to an exploratory factor analysis using principal axis factoring with varimax rotation. Two factors were extracted with eigenvalues greater than 1.00. The challenge appraisal factor with initial 6 items accounted for the largest amount of variance (47.94%), followed by the hindrance appraisal factor with 5 items (28.23%). Table 17 shows the results of exploratory factor analysis. The results show very similar factor structures compared to the 3rd pretest results. In addition, Cronbach's alpha coefficients for challenge and hindrance appraisals are .91 and .94 respectively, indicating potential unidimensionality and satisfactory internal consistency of each scale.

Table 17**Exploratory Factor Analysis with Challenge and Hindrance Appraisals**

Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.273	47.936	47.936	4.263	38.752	38.752
2	3.105	28.225	76.162	4.115	37.409	76.162
3	.671	6.098	82.260			
4	.590	5.361	87.621			
5	.382	3.470	91.092			
6	.259	2.358	93.450			
7	.217	1.973	95.423			
8	.177	1.613	97.036			
9	.172	1.565	98.602			
10	.090	.819	99.420			
11	.064	.580	100.000			

Rotated Component Matrix

	Component	
	1	2
CA1	.800	– .270
CA2	.861	– .188
CA3	.858	– .097
CA4	.882	– .061
CA5	.769	– .109
CA6	.827	.054
HA1	– .120	.888
HA2	– .193	.933
HA3	– .148	.897
HA4	– .134	.930
HA5	– .021	.807

Extraction Method: Principal component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

4.2.2 Dimensionality Test for Job Engagement

In addition, I tested dimensionality for a multi-dimensional construct (i.e., job engagement). First, I submitted the data to an exploratory factor analysis using principal axis factoring with varimax rotation. Three factors were extracted with eigenvalues greater than 1.00. Cognitive engagement factor accounted for the largest amount of variance (72.30%), followed by the emotional (8.27%) and physical (6.01%) factors (see Table 18). All rotated factor loadings of items to their corresponding dimensions were greater than .70, and there was no cross-loading greater than .50. A 6-item battery for each dimension was averaged to check internal consistency. The internal consistency reliabilities ranged from .95 and .98. Furthermore, the strong correlation among the scales ($r = .61$ to $.80$) supported the second-order factor structure. The results show very similar factor structures compared to the 3rd pretest results. For the main study, therefore, I will use job engagement as a second-order factor.

Table 18**Exploratory factor analysis with job engagement**

Total Variance Extracted

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.015	72.303	72.303	5.440	30.220	30.220
2	1.488	8.267	80.570	5.144	28.579	58.799
3	1.081	6.008	86.577	5.000	27.778	86.577
4	.540	2.998	89.575			
5	.391	2.171	91.746			
6	.266	1.477	93.223			
7	.241	1.338	94.561			
8	.210	1.168	95.728			
9	.163	.903	96.631			
10	.129	.718	97.349			
11	.111	.619	97.968			
12	.099	.549	98.517			
13	.074	.409	98.926			
14	.059	.329	99.255			
15	.053	.295	99.550			
16	.036	.199	99.749			
17	.025	.139	99.888			
18	.020	.112	100.000			

Rotated Component Matrix

	Component		
	1	2	3
CE1	.772	.383	.375
CE2	.762	.431	.343
CE3	.821	.317	.333
CE4	.849	.365	.283
CE5	.826	.343	.301
CE6	.855	.337	.252
EE1	.403	.708	.419
EE2	.376	.771	.416
EE3	.414	.733	.359
EE4	.396	.778	.307
EE5	.385	.814	.342
EE6	.352	.826	.262
PE1	.239	.473	.752
PE2	.415	.196	.704
PE3	.297	.491	.739
PE4	.247	.370	.733
PE5	.307	.238	.869
PE6	.277	.256	.859

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

4.2.3 Chi-square Difference Test and Pattern of Inter-correlation Matrix

With the small sample size ($n = 46$), I looked at mean values and correlations among the variables. First, I aggregated items of each constructs and generated composite scores of all constructs. In order to compare mean differences of proposed constructs between 3rd and 4th

pretests, I conducted a chi-square difference test with all constructs. The results showed that mean values of constructs between 3rd and 4th pretests are not significantly different except one construct (i.e., hindrance appraisal, see Table 19). Thus, the results suggest that 1) the translation is accurate and valid, and 2) results from the 4th pretest show similar patterns compared to the results from the 3rd pretest.

Second, I looked at correlations among constructs. All of the patterns of correlations are same directions with the pattern of correlations from the 3rd pretest. Though the sample size of the 4th pretest is very small ($n = 46$) and data definitely has low power, most of the correlations are statistically significant at 0.05 or 0.10 level (see Table 19). Thus, it verifies that the translation is accurate and valid, and Korean sales and service workers have similar attitudes compared to American sales and service workers.

Both challenge and hindrance appraisals were correlated with nomological network construct in the right direction (see Table 20). However, though the correlation between hindrance appraisal and job engagement is in the right direction that I expected, the strength of the correlation is somewhat low ($r = -.10, p = 0.50$). The result might be that the data has very low power ($n = 46$) and sampling issues.

Overall, I am confident that 1) the translation is accurate and valid, and 2) results from the 4th pretest show similar patterns compared to the results from the 3rd pretest.

Table 19

Inter-correlation matrix and Reliability

Construct	4 th Pretest		3 th Pretest		χ^2 Difference Test		1	2	3	4	5	6	7	8
	M	SD	M	SD	F-value	P-value								
1. Challenge Appraisal	5.33	1.00	5.17	1.13	.682	.410	(.91)							
2. Hindrance Appraisal	3.08	1.34	3.86	1.50	9.696	.002	-.25*	(.94)						
3. Prosocial Motivation	5.76	1.11	5.45	1.12	2.629	.107	.49**	-.21	(.94)					
4. Intrinsic Motivation	4.63	1.54	4.77	1.74	.229	.633	.28*	-.20	.21	(.97)				
5. Job Engagement	7.10	1.36	7.07	1.67	.012	.914	.50**	-.10	.60**	.34**	(__)			
6. Job Stress	3.45	1.50	3.42	1.51	.010	.919	-.19	.24	-.12	-.12	-.06	(.88)		
7. Turnover Intention	3.36	1.64	3.02	1.67	1.399	.239	-.19	.23	-.07	-.44**	-.19	.50**	(__)	
8. Job Satisfaction	3.28	.71	__	__	__	__	.44**	-.22	.24	.36**	.46**	-.47**	-.60**	(__)

* Correlation is significant at the 0.10 level, ** Correlation is significant at the 0.05 level.
Coefficient Alpha (α) is presented along diagonal

Table 20**Nomological Network for Challenge and Hindrance Appraisals**

Construct	Scale sources				
		α	r	n	p
Prosocial Motivation	Grant & Sumanth (2009)	.94	.49	46	.001
Intrinsic Motivation	Grant (2008)	.97	.28	46	.060
Job Engagement	Rich et al. (2010)	—	.50	46	.000
Job Stress	Netemeyer et al. (2005)	.88	– .19	46	.205
Turnover Intention	Spector et al. (1988)	—	– .19	46	.198
Job Satisfaction		—	.44	46	.002

Construct	Scale sources				
		α	r	n	p
Prosocial Motivation	Grant & Sumanth (2009)	.94	– .21	46	.158
Intrinsic Motivation	Grant (2008)	.97	– .20	46	.187
Job Engagement	Rich et al. (2010)	—	– .10	46	.500
Job Stress	Netemeyer et al. (2005)	.88	.24	46	.108
Turnover Intention	Spector et al. (1988)	—	.23	46	.134
Job Satisfaction		—	– .22	46	.135

4.3 Main Study

4.3.1 Sample and Procedure

To test the proposed hypotheses, I collected data from two distinct sources: insurance agents at a major insurance company located in South Korea and the agents' supervisors (the primary managers for insurance agents). The insurance company offers a range of policies and coverage options for a variety of insurance products such as auto, health, life, and property insurance. In the company, insurance agents mainly introduce and sell the different types of insurance policies to current and potential customers and try to find the best insurance plans for them. In addition, insurance agents consult current customers regarding a claim on any insurance policy. Thus, the fundamental job of insurance agents is to contact customers to answer their inquiries related to any insurance policy.

These subjects are deemed appropriate for the proposed model for two reasons. First, insurance consultants are the ones frequently contacting customers and the ones engaging in behaviors to satisfy customers' unique requests or provide customized insurance plans (i.e., regularly interacting with demanding customers). Second, given the large amount of time that they spend in contact with customers, insurance consultants are in position to (potentially) be influenced by demanding customers (e.g., opportunistic customers, customers who have high expectations, or emotionally demanding customers).

Insurance agents completed paper-and-pencil surveys, which included measures of focal constructs except their performance measures. All employees at the insurance company were encouraged to participate in this research project. Two-hundred sixty-nine surveys were originally distributed. Two-hundred-seventeen employees completed the questionnaires for a

response rate of 81%. The sample demographics are as follows: 66% were female; 67% were under the age of 55; and the average tenure of the respondents with the organization was 9.3 years. Table 21 and 22 show the response rate and demographic information in a detailed manner.

In addition, seventeen supervisors completed a separate confidential performance evaluation for each employee, with an average of 12.8 employees (SD = 4.6). I matched employee responses and supervisor evaluations by name.

Table 21
Response Rate

Descriptions	Number and Percentage
Surveys distributed	269
Number of usable surveys	217
Response rate	81%

Table 22
Demographic Profile of Respondents

Gender	Number	%
Male	74	34.1
Female	143	65.6
Total	217	100
Age	Number	%
Less than 25	5	2.3
25~39	25	11.5
40~55	115	53.0
56 and over	72	33.2
Total	217	100
Education	Number	%
High school or less	114	52.5
College degree	44	20.3
Bachelor degree	56	25.8
Master	3	1.4
Doctorate	0	0
Total	217	100

4.3.2 Reliability Test

A reliability test was used to assess the internal consistencies of measures of interest. Cronbach Alpha coefficients were used to assess reliability for the multi-item scales. Cronbach's alpha (α) for each scale is provided in Table 23.

The reliabilities for prosocial and intrinsic motivations were .91 and .94, respectively. In this dissertation, I developed two new constructs: challenge and hindrance appraisals. The challenge appraisal construct includes 6 items while the hindrance appraisal consists of a 5-item battery. Cronbach's coefficient alpha values were .95 and .91, respectively. The results indicate that the final scales of both constructs exhibited excellent internal consistency.

In addition, a reliability test was conducted to determine the internal consistency of the job engagement scale. Job engagement consists of three conceptual dimensions: physical engagement, emotional engagement, and cognitive engagement. Each sub-dimension is composed of a 6-item battery. The reliability coefficients for physical engagement, emotional engagement, and cognitive engagement were .97, .96, and .98, respectively.

Next, I checked the internal consistencies of both the job stress and job performance measures. The job stress measure provided an adequate reliability ($\alpha = .85$). Finally, in this dissertation, I used two different employee job performance measures: job performance and customer-oriented performance. Because the two performance measures are conceptually different, I considered them as separate constructs, and therefore, provided each reliability estimate. The resulting reliability estimates resulted in excellent internal consistencies (i.e., $\alpha = .95$ for job performance; $\alpha = .97$ for customer-oriented performance).

Finally, I operationalized employee satisfaction using an 8-item battery that assesses employee satisfaction with eight specific facets of overall job adapted from the work of Brown

and Peterson (1993). As previously recommended by Hartline and Ferrell (1996), the eight facets of overall job satisfaction are averaged and operationalized as a single composite indicator because the employee satisfaction is a formative scale. Thus, I did not provide a reliability of the single job satisfaction indicator.

Overall, all alpha coefficients exceed the minimum criteria for reliability of .70, recommended by Nunnally (1967).

Table 23
Reliability Coefficients for Constructs

Construct (or factor)	Number of Items	Cronbach's Alpha (α)
Prosocial Motivation	5	.91
Intrinsic Motivation	4	.94
Challenge Appraisal	6	.95
Hindrance Appraisal	5	.91
Job Engagement	18	
<i>Physical Engagement</i>	6	.97
<i>Emotional Engagement</i>	6	.96
<i>Cognitive Engagement</i>	6	.98
Job Stress	4	.85
Job Performance	3	.95
Customer-Oriented Performance	2	.97
Job Satisfaction (formative scale)	1	—

4.3.3 Exploratory Factor Analysis

In this dissertation, I develop two new constructs: challenge and hindrance appraisals. The resulting reliability estimates for both constructs provided excellent consistencies in the previous session. Next, exploratory factor analysis (EFA) was conducted to identify the underlying factor structure of the two constructs. Simply, exploratory factor analysis further provided an explanation to verify that challenge and hindrance appraisals are separate constructs.

I submitted all 11 items (i.e., 6 items for challenge appraisal and 5 items for hindrance appraisal) to an exploratory factor analysis using principal axis factoring with varimax rotation. Two clean factors were extracted with eigenvalues greater than 1.00 (1 for challenge appraisal and 1 for hindrance appraisal). The challenge appraisal factor with the initial 6 items accounted for the largest amount of variance (47.17%), followed by the hindrance appraisal factor with 5 items (29.12%). Table 24 shows the results of exploratory factor analysis, indicating that challenge and hindrance appraisals load on distinct factors.

Table 24**Exploratory factor analysis with challenge and hindrance appraisals**

Total Variance Extracted

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.188	47.167	47.167	4.773	43.388	43.388
2	3.268	29.712	76.880	3.684	33.492	76.880
3	.608	5.525	82.404			
4	.443	4.024	86.428			
5	.326	2.959	89.387			
6	.292	2.658	92.045			
7	.241	2.193	94.238			
8	.184	1.668	95.906			
9	.174	1.585	97.491			
10	.156	1.418	98.909			
11	.120	1.091	100.000			

Rotated Component Matrix

	Component	
	1	2
CA1	.836	– .028
CA2	.904	– .046
CA3	.906	– .107
CA4	.883	– .105
CA5	.882	– .103
CA6	.918	– .112
HA1	– .050	.742
HA2	– .086	.874
HA3	– .090	.896
HA4	– .079	.890
HA5	– .091	.852

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization

In addition, an exploratory factor analysis was used to examine the factor structure for a second-order construct (i.e., job engagement) and to confirm the notion that job engagement consists of three distinct sub-dimensions: physical engagement, emotional engagement, and cognitive engagement. I submitted all 18 items (i.e., 6 items for each dimension) to an exploratory factor analysis using principal axis factoring with varimax rotation. Three factors were clearly extracted with eigenvalues greater than 1.00. The cognitive engagement factor accounted for the largest amount of variance (71.31%), followed by the emotional (9.51%) and physical (5.94%) factors (see Table 25). All rotated factor loadings of items to its corresponding dimension were greater than .70, and there was no cross-loading greater than .50. A 6-item battery for each dimension was examined to check internal consistency. Furthermore, the strong correlation among the scales ($r = .68$ to $.78$) supported the second-order factor structure. For the subsequent confirmatory factor analysis, therefore, I use the job engagement measure as a second-order factor with three dimensions, as recommended by Rich, LePine, and Crawford (2010).

Table 25**Exploratory Factor Analysis with Job Engagement**

Total Variance Extracted

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.835	71.307	71.307	5.543	30.794	30.794
2	1.711	9.506	80.812	5.078	28.213	59.007
3	1.069	5.940	86.753	4.994	27.746	86.753
4	.386	2.146	88.899			
5	.334	1.857	90.756			
6	.288	1.600	92.356			
7	.219	1.217	93.573			
8	.174	.968	94.541			
9	.155	.862	95.403			
10	.146	.812	96.215			
11	.136	.755	96.971			
12	.112	.623	97.594			
13	.102	.565	98.162			
14	.089	.492	98.651			
15	.075	.416	99.067			
16	.064	.357	99.424			
17	.053	.293	99.717			
18	.051	.283	100.000			

Rotated Component Matrix

	Component		
	1	2	3
CE1	.815	.272	.360
CE2	.852	.280	.321
CE3	.856	.298	.330
CE4	.830	.312	.351
CE5	.816	.305	.383
CE6	.798	.299	.373
EE1	.361	.702	.452
EE2	.155	.804	.323
EE3	.358	.746	.385
EE4	.246	.856	.288
EE5	.276	.837	.273
EE6	.230	.848	.183
PE1	.411	.241	.784
PE2	.442	.337	.743
PE3	.413	.336	.778
PE4	.316	.386	.795
PE5	.382	.361	.763
PE6	.267	.380	.781

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization

4.3.4 Common Method Variance Test

Because several of the variables in the dissertation model were self-reported by sales employees, common method variance (CMV) could inflate correlations between independent and dependent variables. Two approaches were conducted to assess the extent to which common

method biases might exist. As recommended by Griffith and Lusch (2007), I performed Harman's one-factor test. In order to do the statistical test, a single latent factor for all latent constructs was produced as an alternative factor structure, compared to the theoretically proposed factor structure (i.e., dissertation model). Based on the test analysis, the resulting dissertation measurement model ($\chi^2(935) = 1961.82, p < .01; CFI = .91; TLI = .90; RMSEA = .07; SRMR = .04$) provided a significantly better fit to the data than the one factor model ($\chi^2(989) = 7977.45, p < .01; CFI = .40; TLI = .37; RMSEA = .18; SRMR = .15$). This result indicates that CMV does not exist in the study.

Second, as suggested by Podsakoff, Mackenzie, Lee, and Podsakoff (2003), the partial correlation technique of including a marker variable (i.e., a variable not theoretically associated with at least one other variable in the study) was conducted. As one prior study used age as the marker variable (e.g., Hughes, Bon, & Rapp, 2013), I used age as the marker variable in the model. First, I generated partial correlations between predictor and criterion variables, which partialled out the effects of age. Then, I compared the differences in the partial correlation between predictor and criterion variables with their zero-order correlation. The results showed that there are no significant relationships between age and other variables in the model, generating no significant difference in correlations with and without age. This provided additional evidence that common method biases are not a problem.

Further, employees' performance measures (i.e., job performance and customer-oriented performance) were evaluated by their primary managers. The multi-source dataset minimizes concerns associated with CMV.

4.3.5 Dimensionality Test for Job Engagement

The result of exploratory factor analysis provided an explanation to verify that job engagement has three different dimensions. Further, I conducted confirmatory factor analysis (CFA) to confirm that job engagement consists of three different dimensions and is more appropriate as a second-order factor structure.

I specified a series of confirmatory factor analysis with the job engagement items. I initially fit the data to a one-factor model in which all 18 items loaded onto a single latent factor. The results of one-factor structure indicated a poor fit to the data ($\chi^2(135) = 1956.30, p < .01$; root mean square error of approximation (RMSEA) = .25; root mean square residual (RMSR) = .09; comparative fit index (CFI) = .71; Tucker-Lewis index (TLI) = .64). Next, I specified a three-factor model in which a 6-item battery for each dimension loaded onto its corresponding factor. The results of three-factor structure indicated a good fit to the data ($\chi^2(132) = 595.44, p < .01$; root mean square error of approximation (RMSEA) = .13; root mean square residual (RMSR) = .04; comparative fit index (CFI) = .92; Tucker-Lewis index (TLI) = .94). As compared to the one-factor solution, the three factor solution showed a significant χ^2 difference value ($\chi^2(3) = 1360.86, p < .01$), indicating that the three dimensions appropriately reflect a second-order factor (see Table 26).

Table 26
Dimensionality Test for Job Engagement

Construct	# of Factor	Result	χ^2 and DF	χ^2 difference	Conclusion
Job Engagement	1-factor Solution	CFI= .71 TLI= .64 RMSEA= .25 SRMR= .09	1956.30(135)		
	3-factor Solution	CFI= .92 TLI= .91 RMSEA= .13 SRMR= .04	595.44(132)	1360.86(3) $P < .01$	<i>3-factor solution is appropriate</i>

4.3.6 Measurement Model Analysis

Measurement properties and proposed hypotheses were tested by using two-step approaches for assessing structural models (Anderson & Gerbing, 1988). I conducted this analysis using Mplus 6.12. As a first step, confirmatory factor analysis was performed based on the specified model to assess construct validity. Consistent with prior research, the eight facets of overall job satisfaction were averaged and operationalized as a single composite indicator (Hartline & Ferrell, 1996). Measurement error of the job satisfaction single indicator was fixed at $\text{variance} \times (1 - \text{reliability})$, with an assumed reliability of .85 as recommended in prior research.

As mentioned before, I specified the job engagement measure as consisting of three first-order factors (i.e., physical, emotional, and cognitive dimensions) that load onto a second-order factor. The resulting second-order measurement model provided a good fit to the data: $\chi^2(951) = 2001.14, p < .01$; comparative fit index (CFI) = .91; Tucker-Lewis index (TLI) = .90

standardized root mean residual (SRMR) = .05; root mean square error of approximation (RMSEA) = .07. The good fit of the measurement model indicates that measures are unidimensional in nature.

Evidence of discriminant validity for each latent construct is shown in Table 27. The average variance extracted (AVE) for each of the constructs exceeds its shared variance with any of the other constructs in the measurement model (Fornell & Larcker, 1981), providing discriminant validity. In addition, all AVE of constructs are greater than .50, which indicates construct validity. Convergent validity of the constructs is evaluated by composite reliability scores. The composite reliability of each latent construct ranges from .86 for job stress to .97 for customer-oriented performance (see Table 27), supporting the convergent validity of the measurement scales. Furthermore, all the items load significantly on their intended factors, providing strong evidence of internal consistency (see Table 28). Taken together, the measurement properties appear to be both reliable and valid.

4.3.7 Nested Effect Test on Performance Measures

Given that employees' performance measures (i.e., job performance and customer-oriented performance) are evaluated by 17 different managers of the insurance company, the nested effects within each manager could be a potential influential factor on performance evaluation. I examined intra class correlation coefficients (ICCs) and corresponding design effects to ascertain the extent to which nesting effects influenced on the performance measures. ICC values for the two constructs were as follows: job performance = 30%; customer-oriented performance = 24%. In addition, design effects of both performance measures, calculated by

multiplying the ICC by (average cluster size – 1) and adding 1, were greater than 2, suggesting that the presence of these meaningful nested effects should not be ignored. Therefore, the proposed structural model is estimated by a robust estimator to control the nested effects. (i.e., I test the model using a TYPE = COMPLEX specification in Mplus).

Table 27

Inter-correlation Matrix, Reliability, AVE, and CR

Construct	M	SD	AVE	CR	1	2	3	4	5	6	7	8	9
1. Prosocial motivation	5.40	1.10	.68	.91	(.91)								
2. Intrinsic motivation	4.67	1.22	.80	.94	.35*	(.94)							
3. Challenge appraisal	5.23	1.09	.76	.95	.51*	.38*	(.95)						
4. Hindrance appraisal	3.01	1.22	.73	.92	-.16*	-.26*	-.20*	(.91)					
5. Job Engagement	6.89	1.35	.77	.91	.39*	.48*	.43*	-.22*	(.91)				
6. Job Stress	4.11	1.55	.68	.86	-.08	-.18*	-.11	.35*	-.20*	(.85)			
7. Job satisfaction	3.33		—	—	.21*	.31*	.25*	-.35*	.47*	-.42*	(.91)		
8. Job performance	6.15	1.61	.87	.95	.06	.22*	.10	-.09	.31*	-.08	.09	(.95)	
9. Customer-oriented perf	6.47	1.58	.94	.97	.02	.09	.11	-.06	.31*	-.04	.03	.71*	(.97)

1. Correlation coefficients are the completely standardized estimates from the Phi matrix of CFA. * Significant at $\alpha = 0.05$.

2. CR is composite reliability, AVE is Average Variance Extracted

3. Coefficient alpha (α) is presented along diagonals

Table 28

Latent Construct Items and Standardized Factor Loadings

Latent construct scale items	Standardized loadings
Prosocial motivation	
1. I get energized by working on tasks that have the potential to benefit others.	.786
2. I like to work on tasks that have the potential to benefit others.	.860
3. I prefer to work on tasks that allow me to have a positive impact on others.	.873
4. I do my best when I'm working on a task that contributes to the well-being of others.	.749
5. It is important to me to have the opportunity to use my abilities to benefit others.	.848
Intrinsic motivation	
1. Because I enjoy the work itself.	.826
2. Because It's fun.	.944
3. Because I find the work engaging.	.880
4. Because I enjoy it.	.926
Challenge appraisal	
1. My customers make requests that require me to learn new ways to do things.	.784
2. The customers I serve make requests that require me to learn new ways to complete job tasks.	.868
3. The customers I serve make requests that ultimately allow me to become better at my job.	.895
4. I learn new ways to do job tasks as a result of customer requests.	.863
5. Customer requests allow me to learn more about job tasks.	.876
6. Requests from customers provide an opportunity to apply new skills to complete job tasks.	.920
Hindrance appraisal	
1. My customers make requests that actually make it more difficult for me to serve them.*	—
2. My customers make requests that hinder my ability to do my job.	.818
3. My customers' requests impede my ability to help them.	.852
4. I receive requests from my customers that "slow me down."	.920
5. My customers make requests that interfere with my ability to complete my job tasks.	.832
Job engagement (2nd construct)	
1. Physical engagement	.922
2. Emotional engagement	.851
3. Cognitive engagement	.856
Job stress	
1. My job tends to directly affect my health.*	—
2. At the end of the day, my job leaves me "stressed-out."	.744
3. Problems associated with work have kept me awake at night.	.924
4. I feel fidgety or nervous because of my job.	.792
Job performance	
1. Overall quantity of work performed	.929
2. Overall quality of work performed	.887
3. Overall job performance	.986
Customer-oriented performance	
1. Quality of interactions with customers	.966
2. Ability to satisfy customer needs	.969

Job satisfaction (See measures in Appendix A)	
1. A single composite indicator	.925

* Items are deleted because the standardized loadings are below .70.

4.3.8 Structural Model Analysis

The second step of this analysis was to test 10 hypotheses using a series of structural path models. First, I estimated a linear effects model in which I tested the a priori hypothesis. The main effects model employed a bootstrapping technique ($n = 1000$ bootstrap resamples) to examine main relationships. The resulting structural model provided a good fit to the data: $\chi^2(967) = 2044.377, p < .01$; comparative fit index (CFI) = .91; Tucker-Lewis index (TLI) = .90; standardized root mean residual (SRMR) = .08; root mean square error of approximation (RMSEA) = .07. The results of main relationships are shown in Table 29.

Second, Latent Moderated Structural Equation (LMSE) analysis was implemented using a robust estimator (with TYPE = RANDOM and ALGORITHM= INTEGRATION specification in Mplus). The approach has been shown to be more robust than other approaches (Schermelleh-Engel, Klein, and Moosbrugger, 1998). In addition, the proposed structural model controlled the nested effects of measures (with TYPE = COMPLEX specification in Mplus). Because standard fit indices are not available with the numerical integration procedure used by Mplus to estimate the interaction terms, I conducted a log-likelihood difference test to compare the fit of the interactive model with that of the main effect model. The resulting LMSE model provided a better fit to data than the main effect model ($-2 LL \text{ change} = 11.99, p < 0.01$). The results of the proposed hypotheses are shown in Table 29.

Hypothesis 1a predicted a synergistic moderating influence of prosocial and intrinsic motivations on challenge appraisal. As expected, the interaction between prosocial and intrinsic motivations in the prediction of challenge appraisal was significant ($\gamma = .13, p < .05$). Hypothesis 1b predicted that a synergistic moderating relationship between prosocial and intrinsic motivations on hindrance appraisal. The interaction between prosocial and intrinsic motivations in the prediction of hindrance appraisal was negative and statistically significant ($\gamma = -.19, p < .05$), indicating that when intrinsic motivation is high, prosocial motivation exerts a stronger negative influence on the hindrance appraisal of customer demands.

Hypothesis 2a predicted that challenge appraisal is positively related to job engagement. The path between challenge appraisal and job engagement is significant ($\gamma = .59, p < .05$). The result suggests that challenge appraisal exerts a positive influence on job engagement. However, the results demonstrate that challenge appraisal does not have a significant effect on job stress ($\gamma = -.06, ns$). Thus, Hypothesis 2b is not supported.

Hypothesis 3a predicted that hindrance appraisal is negatively related to job engagement. The result is supported ($\gamma = -.18, p < .05$). In addition, Hypothesis 3b investigated the relationship between hindrance appraisal and job stress. In support of Hypothesis 3a, the results demonstrate a significant and positive effect of hindrance appraisal on job stress ($\gamma = .40, p < .05$).

Next, I predicted that job engagement is positively related to both job performance (Hypothesis 4a) and job satisfaction (Hypothesis 4b). The results

demonstrate that job engagement is positively related to job and customer-oriented performance ($\gamma = .33$ and $\gamma = .34$ respectively, $p < .05$) while job engagement enhances job satisfaction level ($\gamma = .20$, $p < .05$).

Finally, I predicted that job stress would be negatively related to both job performance (Hypothesis 5a) and job satisfaction (Hypothesis 5b). As shown in Table 29, job stress negatively influences employee job satisfaction ($\gamma = -.19$, $p < .05$), supporting Hypothesis 5b. However, the results demonstrate that job stress does not have a significant effect on job performance and customer-oriented performance ($\gamma = -.03$ and $\gamma = .03$ respectively, *ns*). Thus, Hypothesis 5a is not supported. In sum, 8 out of 10 proposed hypotheses were supported in the study (See Table 30 and Figure 3).

Further, I conducted a mediated-moderation test. In order to do this, Independent variables (i.e., prosocial and intrinsic motivations) are directly connected with three outcome variables. The results show that all paths, that were previously supported, are still significant in the right direction, supporting the mediated-moderation effects (See Table 29).

4.3.9 Graphical Analyses of Interaction Effects

Figure 4a illustrates the influence of prosocial motivation on challenge appraisal at two levels of intrinsic motivation (High versus Low: 1.0 standard deviation above and below the mean). As Figure 4a illustrates, prosocial motivation's positive influence on

challenge appraisal is stronger when intrinsic motivation is high than when intrinsic motivation is low.

Figure 4b illustrates the influence of prosocial motivation on hindrance appraisal at two levels of intrinsic motivation (High versus Low: 1.0 standard deviation above and below the mean). As Figure 4b illustrates, prosocial motivation's negative influence on hindrance appraisal is stronger when intrinsic motivation is high than when intrinsic motivation is low.

Table 29

Model Comparison and Effects

Relationships	Model 1 (Main effect model)	Model 2 Hypothesized (Interactive effects)	Model 3 (Mediated moderation test)
PM to CA	.409*	.415*	.415*
IM to CA	.213*	.197*	.197*
PM×IM to CA (<i>H1a</i>)	—	.129*	.128*
PM to HA	-.092	-.105	-.105
IM to HA	-.236*	-.216*	-.217*
PM×IM to HA (<i>H1b</i>)	—	-.190*	-.189*
CA to JE (<i>H2a</i>)	.592*	.592*	.594*
CA to JS (<i>H2b</i>)	-.058	-.058	-.056
HA to JE (<i>H3a</i>)	-.187(<i>p</i> = .065)	-.184*	-.182*
HA to JS (<i>H3b</i>)	.404*	.403*	.401*
JE to J PERF (<i>H4a</i>)	.329*	.329*	.307*
JE to COP (<i>H4a</i>)	.336*	.336*	.395*
JE to SAT (<i>H4b</i>)	.195*	.195*	.169*
JS to J PERF (<i>H5a</i>)	-.025	-.025	-.011
JS to COB (<i>H5a</i>)	.029	.029	.025
JS to SAT (<i>H5b</i>)	-.186*	-.186*	-.181*
PM to J PERF	—	—	-.138
PM to COP	—	—	-.149
PM to SAT	—	—	.018
IM to J PERF	—	—	.176
IM to COP	—	—	-.040
IM to SAT	—	—	.058
# of free parameters	160	162	168
Log-likelihood	-12,569.126	-12,563.131	-12,558.281
-2 LL change		11.99*	9.7
N	217	217	217

* PM = prosocial motivation, IM = intrinsic motivation, CA = challenge appraisal, HA = hindrance appraisal, JE = job engagement, JS = job stress, SAT = job satisfaction, J PERF = job performance, COP = customer-oriented performance

Table 30**Hypothesized relationships and testing results**

	Hypothesis	Result
H1a	The positive influence of prosocial motivation on challenge appraisal will be stronger when intrinsic motivation is high than when intrinsic motivation is low.	Supported
H1b	The negative influence of prosocial motivation on hindrance appraisal will be stronger when intrinsic motivation is high than when intrinsic motivation is low.	Supported
H2a	Challenge appraisal exerts a positive influence on job engagement.	Supported
H2b	Challenge appraisal exerts a positive influence on job stress.	Not supported
H3a	Hindrance appraisal exerts a negative influence on job engagement.	Supported
H3b	Hindrance appraisal exerts a positive influence on job stress.	Supported
H4a	Job engagement exerts a positive influence on job performance.	Supported
H4b	Job engagement exerts a positive influence on job satisfaction.	Supported
H5a	Job stress exerts a negative influence on job performance.	Not supported
H5b	Job stress exerts a negative influence on job satisfaction.	Supported

Figure 3
Structural Model Results

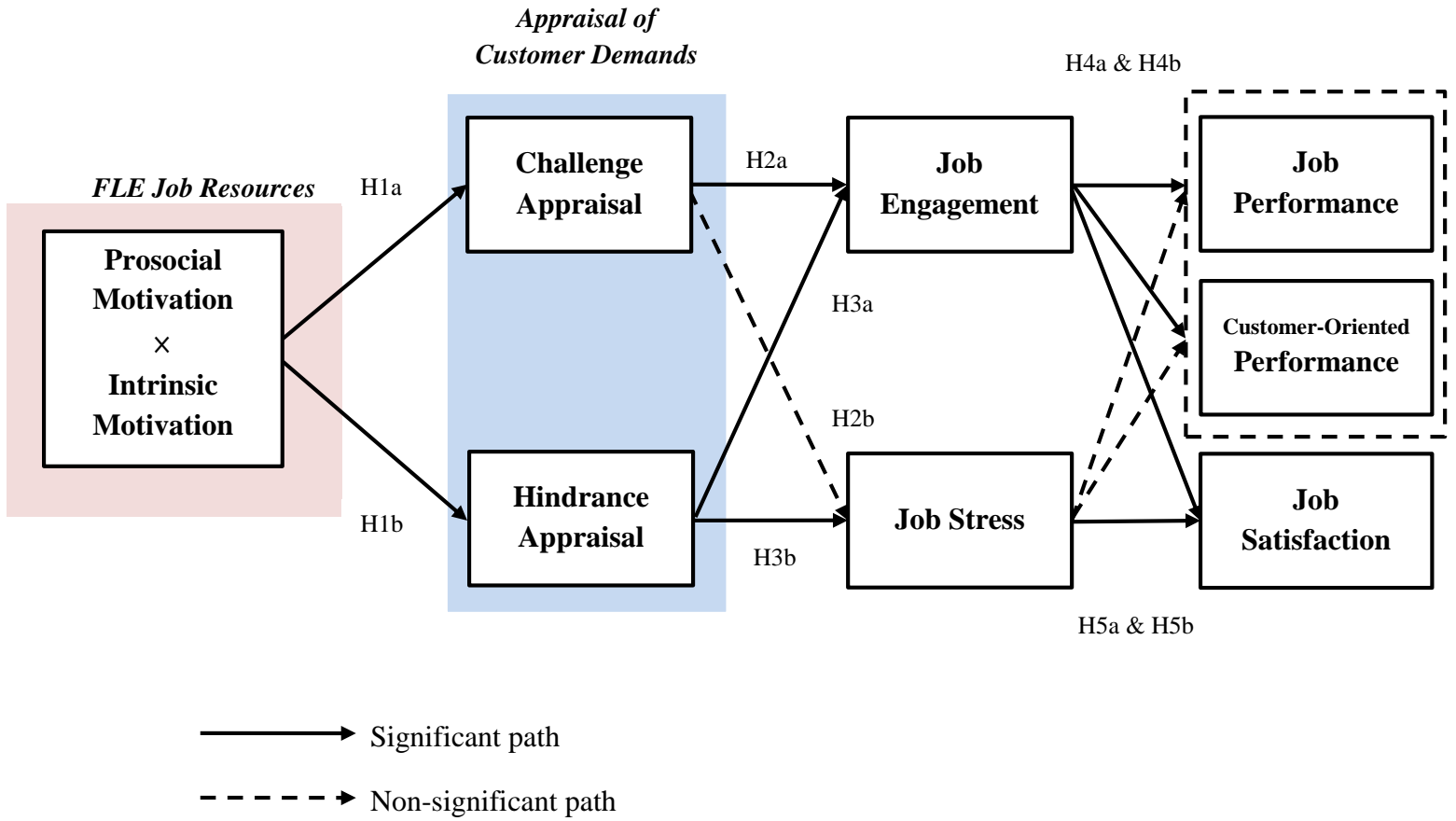
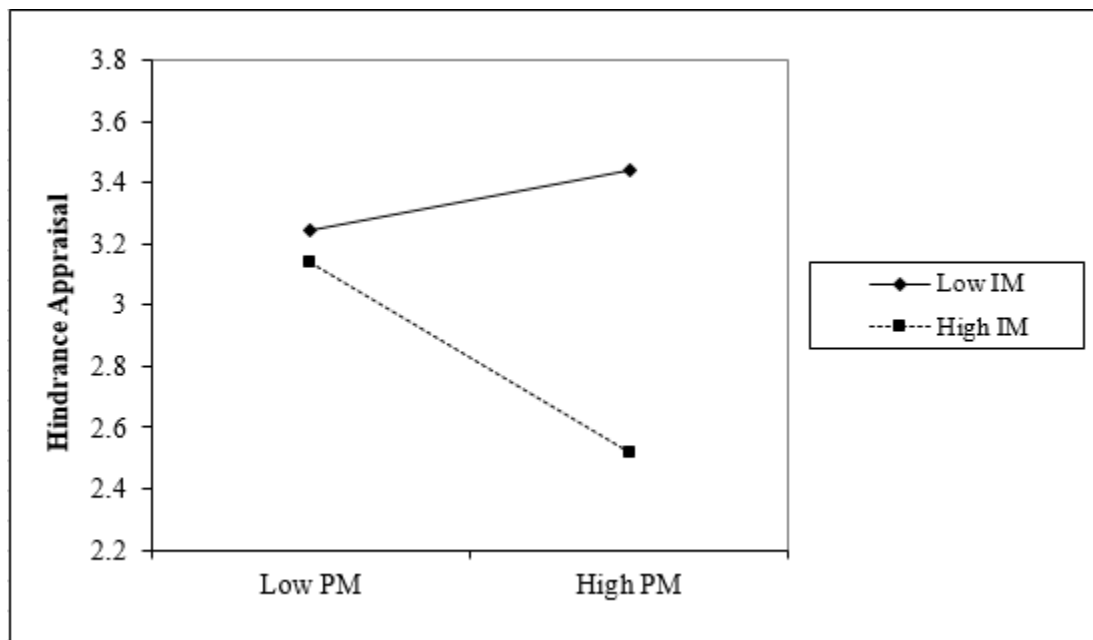
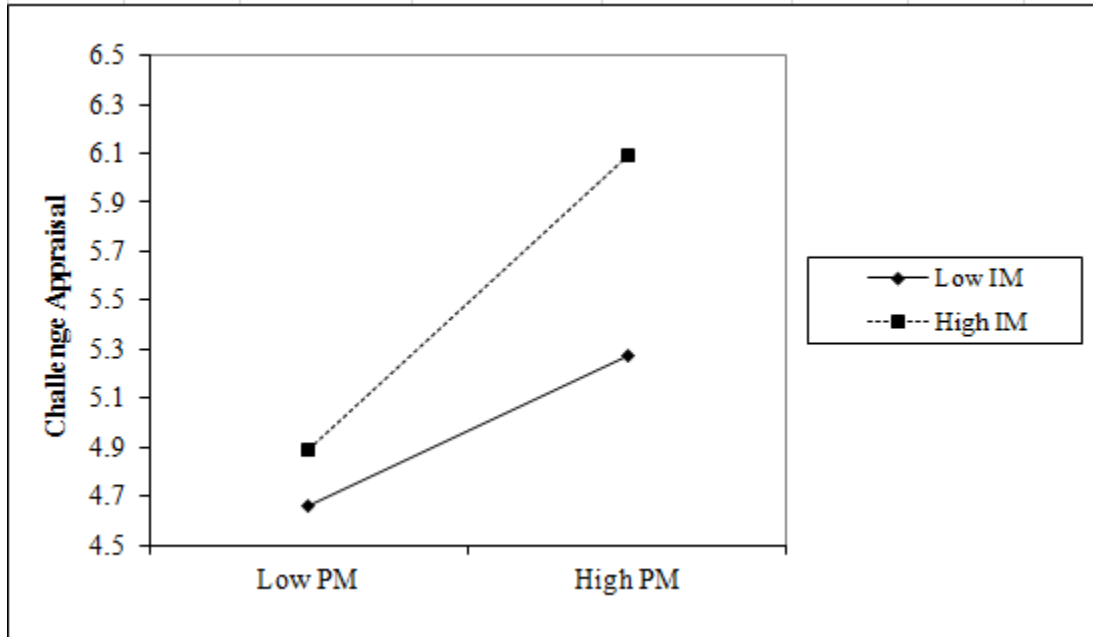


Figure 4a and 4b

Interaction Effect between Prosocial and Intrinsic Motivations



* PM = prosocial motivation, IM = intrinsic motivation

CHAPTER V

DISCUSSION

This chapter summarizes the main research findings on 1) how prosocial and intrinsic motivations influence two forms of appraisals of customer demands (i.e., challenge and hindrance appraisals), and 2) how the two different forms of appraisal trigger different psychological processes on job-related outcomes.

Second, this section provides theoretical contributions to the marketing and management literature, along with practical implications for marketing managers. Finally, discussion of research limitations and suggestions for future research are addressed in the last section.

5.1 Summary of Findings

A core question of my dissertation study concerns what factors may shape appraisal of customer demands as either challenges or hindrances. Though recent research suggests that job and personal resources may influence FLEs' perceptions of customer demands (e.g., Xanthopoulou et al., 2007), no research examines potential factors influencing how FLEs perceive customer demands. Based on the work of Grant (2008), I draw on the transactional theory of stress to propose that prosocial and intrinsic motivations have a synergistic interaction effect on the appraisal of customer demands on the part of FLEs. Using a field survey approach, I found full support for differential exposure hypotheses: 1) the positive influence of prosocial motivation on challenge appraisal will be stronger when intrinsic motivation is high than when intrinsic motivation is low, and 2) the negative influence of prosocial motivation on hindrance appraisal will be stronger when intrinsic motivation is high than when intrinsic motivation is low.

Furthermore, the results show a surprising pattern, such that, although a little weak, there is a positive relationship between prosocial motivation and hindrance appraisal when FLEs' intrinsic motivation is low. A theoretically plausible explanation for the unexpected trend is that the absence of intrinsic motivation makes the process of solving customer problems less enjoyable for FLEs (Grant, 2008). Therefore, prosocially motivated employees feel more pressure from customer demands and eventually become more stressed out. This argument is consistent with the evidence that when intrinsic motivation is low, one's pressure to complete the job in the lack of joyfulness leads to increased stress reactions or fatigue (Bolino & Turnley, 2005).

Second, this study extends JD-R theory with transactional theory of stress to improve our understanding of how the two forms of appraisal (i.e., challenge and hindrance) activate different psychological mechanisms that result in either job stress or engagement in the service/sales context. With an existing measure of job stressors, prior research has shown that challenge demands are positively related to job engagement while generating job stress. As expected, with a newly developed scale of challenge appraisal, the results showed that challenge appraisal exerts a positive influence on job engagement. When FLEs appraise customer demands as challenges, they are engaged in their work (Hypothesis 2a was supported).

However, challenge appraisal was not significantly related to job stress (Hypothesis 2b was not supported). The finding is competing against the previous argument that increased efforts related to appraisal of job demands and coping with them lead to job stress. According to the cognitive appraisal process, an individual makes a primary appraisal (identifies that a demand exists), and then makes a secondary appraisal to ascertain the extent to which s/he has resources to deal with a demand. If the individual has enough resources to deal with the demand, it would not result in felt stress. Therefore, challenging job demands are not stressful as hindering job demands. The results suggest that experiencing a challenge situation may not be a double-edged sword for FLEs.

Third, this study examines the effect of hindrance appraisal on both job engagement and job stress. Lazarus and Folkman (1984) argues that threatening or hindering demands trigger negative emotional reactions and a passive style of coping because they are appraised as having the potential to thwart one's growth and learning. Consequently, an individual is less apt to be motivated to actively resolve difficult

situations, becoming disengaged in their tasks (Kahn, 1990), and one's feeling of being "stressed out" is amplified. Consistent with this argument, hindrance appraisal was negatively related to job engagement while generating high levels of felt stress (Hypotheses 3a and 3b were supported). These findings indicate that experiencing a hindering situation makes FLEs less productive and more harmful to their work.

Fourth, I examine the effect of job engagement on behavioral (i.e., job performance and customer-oriented performance) and attitudinal outcomes (i.e., job satisfaction).

As expected, job engagement was positively related to both job performance and customer-oriented performance (Hypothesis 4a was supported). That is to say, if FLEs are more engaged in their jobs, they are more customer-oriented to satisfy customer needs and perform better as sales/service representatives.

In addition, job engagement was positively related to job satisfaction, supporting Hypothesis 4b. The findings provide empirical evidence that job engagement is a critical proximal antecedent of employee job satisfaction. If FLEs are more engaged in their job, they are more likely to enjoy their work. Such a positive emotional response (i.e., high levels of job satisfaction) may reduce turnover of FLEs, which leads to decreased costs for the sales/service organization.

Finally, I investigated the effect of job stress on employee performance and job satisfaction. I posited that job stress has a harmful effect on employee job outcomes. When FLEs are stressed out, they will likely fail to perform at full capacity because coping resources are devoted to handling stress (Hobfoll, 2002). In this regard, I

hypothesized that job stress exerts a negative influence on job performance and customer-oriented performance (Hypothesis 5a). However, the empirical results did not support Hypothesis 5a. Though FLEs experienced felt stress, the negative emotional response does not affect FLEs' job outcomes. An alternative explanation would be that although many Asian service providers (here Korean) work in an extremely stressful environment, they perform their tasks at full capacity, maximizing their organizations' profit.

As expected, job stress was negatively related to employee job satisfaction. Prior studies suggests that job stress is a critical determinant of employee job attitude including job satisfaction and turnover intention (e.g., Teas, 1983). The empirical results supported the previous notion that stressful events negatively influence attitudinal responses.

In sum, 8 out of 10 proposed hypotheses were supported. This study provides full support of the main contribution: synergistic effects of prosocial and intrinsic motivations on challenge and hindrance appraisals. In addition, the empirical findings provide partial support for the different psychological processes of challenge and hindrance appraisals on job-related outcomes.

5.2 Theoretical Contributions

This study represents a critical step toward establishing how customer demands are appraised by FLEs. The results suggest that customer demands are appraised by FLEs as either a challenge or a hindrance, and the two forms of appraisal are channeled to either the motivational process (i.e., challenge appraisal) or the energy depletion process (i.e., hindrance appraisal) on employee performance and job satisfaction. These findings

highlight that challenge appraisal of customer demands facilitates FLEs' engagement, and subsequently increases their job performance and satisfaction while it does not have a negative effect on job stress. Prior research argues that although challenging demands promote personal gain or growth, they still serve as a potential determinant of felt stress (e.g., LePine, Podsakoff, & LePine, 2005). However, this study accentuates that challenge appraisal is "good thing" on the part of FLEs rather than a double-edged sword.

Furthermore, these findings expand current understandings of how employees develop the psychological process of hindering job demands. As previously suggested, the results show that hindrance appraisal of customer demands is negatively related to job satisfaction through double mediators: job stress and job engagement. This mechanism explains that FLEs who experience stressful events are likely to be less engaged and feel more stressed at the workplace, eventually resulting in lower levels of job satisfaction. However, hindrance appraisal of customer demands does not have a negative effect on job-related outcomes (i.e., job performance and customer-oriented performance). So, hindrance appraisal negatively influences the attitudinal response, but not behavioral outcomes. In sum, the results provide new insights such that challenge appraisal generates positive attitudinal and behavioral consequences while hindrance appraisal is harmful only for attitudinal responses. These findings thus elaborate theoretical on past perspectives by proposing that 1) customer demands are appraised by FLEs as either a challenge or a hindrance, and 2) forms of appraisal activate different psychological mechanisms that ultimately result in both attitudinal and behavioral outcomes.

More importantly, by examining two personal factors that influence how FLEs perceive customer demands (i.e., prosocial and intrinsic motivations), this study offers

two important contributions to cognitive appraisal theory and research. First, this study builds on recent research (Grant, 2008) to evaluate how prosocial motivation and intrinsic motivation—both personal resources—interactively operate to influence FLEs' challenge and hindrance appraisals of customer demands. This approach then represents an important extension, as extant research has not investigated the potential antecedents of challenge and hindrance demands. Prior scholars (e.g., Dormann & Zapf, 2004; Jaramillo, Mulki, & Boles, 2012) have tended to categorize particular customer demands as either challenge demands or hindrance demands, drawing from the theoretical work of challenge-hindrance occupational stress model (LePine, Podsakoff, & LePine, 2005). Such an approach is shortsighted, however, because individuals may react differently to any particular demand based on their individual characteristics. Therefore, a growing number of researchers pose the question, what factors may shape appraisal of customer demands as either challenges or hindrances? Unfortunately, the existing measures in both marketing and management do not allow researchers to examine potential factors that may influence the appraisal of customer (and job) demands on FLEs. By introducing two new constructs (challenge appraisal and hindrance appraisal) to the literature, I found that prosocial and intrinsic motivations have synergistic interaction effects on both challenge and hindrance appraisals. It appears that the combination of enjoying the work (intrinsic motivation) and valuing the benefit of helping others (prosocial motivation) results in a higher level of challenge appraisal and a lower level of hindrance appraisal. This new approach therefore serves to address an important gap in the literature by providing the first empirical investigation of antecedent relationships.

Second, prior research has tended to factor analyze a large number of customer (job) demand scales and categorize a customer (job) demand as either a challenge or even a hindrance (e.g., Cavanaugh, Boswell, Roehling, & Boudreau, 2000; Dormann & Zapf, 2004), based on the cognitive appraisal theory. For example, a salesperson's work overload has been previously considered as a hindrance demand, which reduces salesperson job satisfaction (e.g., Mulki, Lassk, & Jaramillo, 2008; Zablah et al., 2012). However, recent research has argued that work overload from customers can also facilitate FLEs' ability to accomplish their tasks and, therefore, may be appraised by FLEs as a challenge (Webster, Beehr, & Love, 2011). Therefore, there exists inconsistent results concerning how a customer demand is appraised by frontline workers. This is largely due to the fact that, although existing measures of challenge and hindrance demands are categorized by the cognitive appraisal approach, the existing measures are compounded with specific job demands (e.g., time pressure and work overload). Therefore, researchers cannot determine whether a demand is really appraised as either a challenge or a hindrance by FLEs. However, newly developed scales for both challenge and hindrance appraisals are not contaminated with specific demands and directly measure an individual perception of general customer demands. The new measures allow researchers to evaluate more exact perceptions of challenge and hindrance appraisals. Further, these enable them to empirically test potential determinants of challenge and hindrance appraisals. Overall, the new measures facilitate advancement in the theoretical understanding of the cognitive appraisal process of FLEs.

Finally, this study examined psychological mechanisms that mediate the link between prosocial and intrinsic motivations and work-related outcomes. Prior research

has found that prosocial and intrinsic motivations directly influence persistence and productivity based on self-determination theory (Grant, 2008). However, Grant (2008) mentioned that it will be very important to examine how prosocial and intrinsic motivations activate workers' psychological process, which in turn, ultimately results in job outcomes. First, the combination of prosocial and intrinsic motivations is positively related to work performance and job satisfaction through two mediators: challenge appraisal and job engagement. Second, the combination of prosocial and intrinsic motivation is positively related to job satisfaction through two mediators: hindrance appraisal, and job engagement and felt stress. These mechanisms may explain why two forms of motivation synergistically influence positive job outcomes. The study offers an additional contribution to self-determination theory and research.

5.3 Practical Implications

The findings have practical implications for service and sales management with respect to recruiting and motivating FLEs. The results suggest that FLEs exhibit higher levels of challenge appraisal and lower levels of hindrance appraisal when they have both prosocial and intrinsic motivations. Managers may rely on these findings to hire new employees and cultivate both prosocial and intrinsic motivations for current employees. For the recruitment of new service providers, managers may introduce an assessment index measuring prosocial and intrinsic motivations of applicants, thereby enabling services/sales organizations to recruit individuals who have a tendency toward prosocial and intrinsic motivations. In addition, managers may design a new training program to

cultivate prosocial and intrinsic orientations of their FLEs. It is very important to boost employees' prosocial and intrinsic motivations for a couple of reasons. First, employees who experience prosocial and intrinsic motivations are likely to appraise customer demands as challenges, which in turn, result in higher work performance and job satisfaction. Especially, prior research extensively supports the notion that happier employees (high job satisfaction) are more productive and make their customers happier (e.g., Homburg & Stock, 2004). Second, employees who are prosocial- and intrinsic-oriented are less likely to appraise customer demands as hindrances, a contributor of job stress. The biggest reason for higher turnover of services/sales workers is stressful work situations. However, when prosocially and intrinsically motivated, employees who enjoy the work and value the benefit of helping others, ultimately stay longer in their organizations.

Furthermore, the results show that FLEs display higher levels of job performance and customer-oriented performance when they are engaged in their job. Previous research has conceptualized and measured employee engagement in various ways (e.g., Schaufeli & Bakker, 2003). However, prior research has not clearly identified the aspects on which employees are engaged. Applying Khan's perspective on engagement, I found that the level of employee engagement functions scores in terms of combination of physical, emotional, and cognitive aspects. In particular, the cognitive aspect of engagement largely accounted for the amount of variance in the present study (71.31%, see Table 24). Therefore, managers may pay special attention to the degree to which employees are absorbed by their job, as largely contributing to excellent job performance.

5.4 Limitations and Future Research

The study has a number limitations that need to be resolved in the future research. First, due to the cross-sectional nature of the study design, causal inferences among the variables cannot be made. The limitation of the cross-sectional study is avoided by a longitudinal study design, in which serial measurements are collected by the same participants over time: 1) FLEs' prosocial and intrinsic motivations are measured at time t ; 2) hindrance and challenge appraisals of customer demands are measured at time $t+1$; 3) FLEs' performances are evaluated by their managers at time $t+2$. For the more conclusive evidence about causality, researchers may prime prosocial and intrinsic motivations and utilize a cross-lagged longitudinal approach that measures relevant mediators and outcomes at different time points.

Second, although this study identifies personal factors that influence appraisals of customer demands (i.e., prosocial motivation and intrinsic motivation), it is necessary for future research to investigate other potential determinants of appraisal of customer demands, including organizational practice and environmental factors. For example, organizational training may affect appraisal of customer demands. FLEs who receive adequate training for dealing with customer demands are more likely to appraise customer demands as challenges than their counterparts who receive insufficient training because highly trained employees are largely aware of what to do in case of serving demanding customers.

Furthermore, the work unit's service climate will be an important boundary condition of employees' appraisal of customer demands at a retail unit. Therefore, I

suggest that a multilevel analysis of environmental characteristics should be addressed in the future

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APPENDICES

Investigator: Jin Ho Jung

Instructions: We would appreciate your assistance with this research project on an understanding of the interaction between workers and their customers. This is an academic research project; we hope that the overall results will help customer contact personnel have a more enjoyable and productive work experience.

Your participation in this study is completely voluntary and you have the right to refuse to participate. If you agree to participate, please answer the questions presented in the pages that follow. If you do not agree to participate, place the survey inside the envelope and seal it. No one at your workplace will see your individual answers, so we encourage you to provide very candid responses. The survey will take about 20 minutes. If you have any questions regarding the survey, please contact the principal investigator, Jin Ho Jung, a doctoral student, in the Spears School of Business at Oklahoma State University (e-mail: jhjung@okstate.edu, phone: 614-769-5161) or the academic advisor, Dr. Tom J. Brown (e-mail: tom.brown@okstate.edu, phone: 405-744-5113). If you have questions about your rights as a research volunteer, you may contact Dr. Hugh Crethar, IRB Chair, at 219 Cordell North, Stillwater, Ok 74078, 405-744-3377 or irb@okstate.edu.

We have asked for your name so that your responses can be connected to those of your supervisor; we have asked your supervisor to give us feedback with respect to your interactions with customers. Once again, we want to remind you that no one from your company, including your supervisor, will ever see your responses to the items on this survey or your supervisor's evaluations of your performance with respect to customers.

In order to protect your confidentiality, we ask that you fold the completed survey, place it inside the provided envelope, and seal it with your signature. Then, please directly deliver your sealed envelope to the researchers. Thus, no one outside the research team can assess your survey. After the data are collected and associated with your supervisor's responses, your name will be removed from the data file; at the completion of our analyses, the paper surveys will be destroyed. Your name and signature below mean that you voluntarily agree to participate in this research project. Thank you again for your help.

Statement of Consent: I have read the above information, and I consent to take part in the study.

Your Signature _____ Date _____

Your Name (printed) _____

Using the scale provided, please indicate the extent to which you agree with the following statements.	Strongly Disagree							Strongly Agree
I get energized by working on tasks that have the potential to benefit others.	1	2	3	4	5	6	7	
I like to work on tasks that have the potential to benefit others.	1	2	3	4	5	6	7	
I prefer to work on tasks that allow me to have a positive impact on others.	1	2	3	4	5	6	7	
I do my best when I'm working on a task that contributes to the well-being of others.	1	2	3	4	5	6	7	
It is important to me to have the opportunity to use my abilities to benefit others.	1	2	3	4	5	6	7	

Using the scale provided, please indicate the extent to which you agree with the following statements.	Strongly Disagree							Strongly Agree
My customers make requests that require me to learn new ways to do things.	1	2	3	4	5	6	7	
The customers I serve make requests that require me to learn new ways to complete job tasks.	1	2	3	4	5	6	7	
The customers I serve make requests that ultimately allow me to become better at my job.	1	2	3	4	5	6	7	
I learn new ways to do job tasks as a result of customer requests.	1	2	3	4	5	6	7	
Customer requests allow me to learn more about job tasks.	1	2	3	4	5	6	7	
Requests from customers provide an opportunity to apply new skills to complete job tasks.	1	2	3	4	5	6	7	

Please consider each of the following items again. This time, please tell us how frequently you experience the issues discussed in each item.

Please tell us how frequently you experience the issues discussed in each item.	Not at all							Very Often
My customers make requests that require me to learn new ways to do things.	1	2	3	4	5	6	7	
The customers I serve make requests that require me to learn new ways to complete job tasks.	1	2	3	4	5	6	7	
The customers I serve make requests that ultimately allow me to become better at my job.	1	2	3	4	5	6	7	
I learn new ways to do job tasks as a result of customer requests.	1	2	3	4	5	6	7	
Customer requests allow me to learn more about job tasks.	1	2	3	4	5	6	7	
Requests from customers provide an opportunity to apply new skills to complete job tasks.	1	2	3	4	5	6	7	

Why are you motivated to do your work?	Strongly Disagree					Strongly Agree	
Because I enjoy the work itself.	1	2	3	4	5	6	7
Because It's fun.	1	2	3	4	5	6	7
Because I find the work engaging.	1	2	3	4	5	6	7
Because I enjoy it.	1	2	3	4	5	6	7

Using the scale provided, please indicate the extent to which you agree with the following statements.	Strongly Disagree					Strongly Agree	
My customers make requests that actually make it more difficult for me to serve them.	1	2	3	4	5	6	7
My customers make requests that hinder my ability to do my job.	1	2	3	4	5	6	7
My customers' requests impede my ability to help them.	1	2	3	4	5	6	7
I receive requests from my customers that "slow me down."	1	2	3	4	5	6	7
My customers make requests that interfere with my ability to complete my job tasks.	1	2	3	4	5	6	7

Please consider each of the following items again. This time, please tell us how frequently you experience the issues discussed in each item.

Please tell us how frequently you experience the issues discussed in each item.	Not at all					Very Often	
My customers make requests that actually make it more difficult for me to serve them.	1	2	3	4	5	6	7
My customers make requests that hinder my ability to do my job.	1	2	3	4	5	6	7
My customers' requests impede my ability to help them.	1	2	3	4	5	6	7
I receive requests from my customers that "slow me down."	1	2	3	4	5	6	7
My customers make requests that interfere with my ability to complete my job tasks.	1	2	3	4	5	6	7

Please **think about the training you received from the company when you began your current job.** Please tell us **the extent to which you agree with each of following statements** about that training.

Using the scale provided, please indicate the extent to which you agree with the following statements.	Strongly Disagree			Strongly Agree	
Learning helped to overcome work obstacles	1	2	3	4	5
Training was practical	1	2	3	4	5
Sufficient training was provided	1	2	3	4	5

Using the scale provided, please indicate the extent to which you agree with the following statements.	<i>Strongly Disagree</i>									<i>Strongly Agree</i>
I work with intensity on my job.	1	2	3	4	5	6	7	8	9	
I exert my full effort to my job.	1	2	3	4	5	6	7	8	9	
I devote a lot of energy to my job.	1	2	3	4	5	6	7	8	9	
I try my hardest to perform well on my job.	1	2	3	4	5	6	7	8	9	
I strive as hard as I can to complete my job.	1	2	3	4	5	6	7	8	9	
I exert a lot of energy on my job.	1	2	3	4	5	6	7	8	9	

Using the scale provided, please indicate the extent to which you agree with the following statements.	<i>Strongly Disagree</i>					<i>Strongly Agree</i>
My supervisor is very concerned about the welfare of those under him or her	1	2	3	4	5	
My supervisor is willing to listen to work-related problems	1	2	3	4	5	
My supervisor can be relied on when things get difficult at work	1	2	3	4	5	

Using the scale provided, please indicate the extent to which you agree with the following statements.	<i>Strongly Disagree</i>									<i>Strongly Agree</i>
I am enthusiastic in my job	1	2	3	4	5	6	7	8	9	
I feel energetic at my job.	1	2	3	4	5	6	7	8	9	
I am interested in my job.	1	2	3	4	5	6	7	8	9	
I am proud of my job.	1	2	3	4	5	6	7	8	9	
I feel positive about my job.	1	2	3	4	5	6	7	8	9	
I am excited about my job.	1	2	3	4	5	6	7	8	9	

Using the scale provided, please indicate the extent to which you agree with the following statements.	<i>Not at all True</i>					<i>Absolutely True</i>
Customers' wishes are often contradictory	1	2	3	4	5	
It is not clear what customers request from us	1	2	3	4	5	
It is difficult to make arrangements with customers	1	2	3	4	5	
Customers' instructions can complicate our work	1	2	3	4	5	

Using the scale provided, please indicate the extent to which you agree with the following statements.	Strongly Disagree									Strongly Agree
At work, my mind is focused on my job.	1	2	3	4	5	6	7	8	9	
At work, I pay a lot of attention to my job.	1	2	3	4	5	6	7	8	9	
At work, I focus a great deal of attention on my job.	1	2	3	4	5	6	7	8	9	
At work, I am absorbed by my job.	1	2	3	4	5	6	7	8	9	
At work, I concentrate on my job.	1	2	3	4	5	6	7	8	9	
At work, I devote a lot of attention to my job.	1	2	3	4	5	6	7	8	9	

Using the scale provided, please indicate the extent to which you agree with the following statements.	Strongly Disagree							Strongly Agree
My job tends to directly affect my health.	1	2	3	4	5	6	7	
At the end of the day, my job leaves me "stressed-out."	1	2	3	4	5	6	7	
Problems associated with work have kept me awake at night.	1	2	3	4	5	6	7	
I feel fidgety or nervous because of my job.	1	2	3	4	5	6	7	

Using the scale provided, please indicate how often you experience the following statements	Seldom						Very Often
How often do you experience time pressure from customer requests?	1	2	3	4	5	6	7
How often do you work overtime from customer requests?	1	2	3	4	5	6	7

Using the scale provided, please indicate how satisfied you are with the following statements.	Extremely Dissatisfied					Extremely Satisfied
Your overall job	1	2	3	4	5	
Your fellow workers	1	2	3	4	5	
Your supervisor(s)	1	2	3	4	5	
Your organization's policies	1	2	3	4	5	
The support provided by your organization	1	2	3	4	5	
Your salary or wages	1	2	3	4	5	
Your opportunities for advance with this organization	1	2	3	4	5	
Your organization's customers	1	2	3	4	5	

	<i>Never</i>					<i>Very Often</i>
How often have you seriously considered quitting your present job?	1	2	3	4	5	6

	<i>Very Unlikely</i>					<i>Very Likely</i>
How likely is it that you will still be employed at this company 12 months from now?	1	2	3	4	5	6

	<i>Great Extent</i>					<i>Not Seeking</i>
To what extent are you presently seeking other employment?	1	2	3	4	5	6

Using the scale provided, please indicate the extent to which you agree with the following statements.	<i>Strongly Disagree</i>			<i>Strongly Agree</i>			
Overall, I am confident of my ability to perform.	1	2	3	4	5	6	7
I feel I am very capable at the tasks of selling.	1	2	3	4	5	6	7
I feel I have the capabilities to successfully perform this job.	1	2	3	4	5	6	7

Using the scale provided, please indicate the extent to which you agree with the following statements.	<i>Strongly Disagree</i>				<i>Strongly Agree</i>
I have significant autonomy in determining how I do my job	1	2	3	4	5
I can decide on my own how to go about doing my work	1	2	3	4	5
I have considerable opportunity for independence and freedom in how I do my job	1	2	3	4	5

	<i>Very Infrequently</i>							<i>Very Frequently</i>	
During a typical day, how frequently do you interact with customers in person or by telephone/online?	1	2	3	4	5	6	7	8	9

Please provide the following background information. Please fill in the blank or circle your response.

- Your gender? Male _____ Female _____
- What is your age? Less than 25 _____ 26-39 _____ 40-55 _____ 56 and Over _____
- How long have you been working in your present job? _____ Years _____ Months
- How many years of full-time work experience do you have in the same field? _____ Years _____ Months
- Approximately what proportion of your time on the job do you spend in contact with customers?

10% _____ 20% _____ 30% _____ 40% _____ 50% _____

60% _____ 70% _____ 80% _____ 90% _____ 100% _____

6. What is your job title? _____

7. Please check your highest education level

High school or less _____ College degree _____ Bachelor degree _____ Master _____
Doctorate _____

Supervisor survey

Investigator: Jin Ho Jung

Instructions: We would appreciate your assistance with this research project on an understanding of the interaction between workers and their customers. This is an academic research project; we hope that the overall results will help customer contact personnel have a more enjoyable and productive work experience.

Your participation in this study is completely voluntary and you have the right to refuse to participate. If you agree to participate, please answer the questions presented in the pages that follow for each employee you supervise. If you do not agree to participate, place the survey inside the envelope and seal it. No one at your workplace will see your individual answers, so we encourage you to provide very candid responses. The survey will take about 3 minutes per employee. If you have any questions regarding the survey, please contact the principal investigator, Jin Ho Jung, a doctoral student, in the Spears School of Business at Oklahoma State University (e-mail: jhjung@okstate.edu, phone: 614-769-5161) or the academic advisor, Dr. Tom J. Brown (e-mail: tom.brown@okstate.edu, phone: 405-744-5113). If you have questions about your rights as a research volunteer, you may contact Dr. Hugh Crethar, IRB Chair, at 219 Cordell North, Stillwater, Ok 74078, 405-744-3377 or irb@okstate.edu.

We have asked for your name so that your responses can be connected to those of your employees; we have asked them to give us feedback with respect to their interactions with customers. Once again, we want to remind you that no one from your company, including your employees, will ever see your responses to the items on this survey or your evaluations of their performance with respect to customers.

In order to protect your confidentiality, we ask that you fold the completed survey, place it inside the provided envelope, and seal it with your signature. Then, please directly deliver your sealed envelope to the researchers. Thus, no one outside the research team can access your survey. After the data are collected and associated with your employees' responses, employees' names will be removed from the data file; at the completion of our analyses, the paper surveys will be destroyed. Your name and signature below mean that you voluntarily agree to participate in this research project. Thank you again for your help.

Statement of Consent: I have read the above information, and I consent to take part in the study.

Your Signature _____ Date _____

Your Name (printed) _____

Please provide the following background information. Please fill in the blank or circle your response.

1. Your gender? Male _____ Female _____
2. What is your age? Less than 25 _____ 26-39 _____ 40-55 _____ 56 and Over _____
3. How long have you been working in your present job?
Months _____ Years _____
4. How many years of full-time work experience do you have in the same field?
Months _____ Years _____
5. Approximately what proportion of your time on the job do you spend in contact with customers?
10% _____ 20% _____ 30% _____ 40% _____ 50% _____
60% _____ 70% _____ 80% _____ 90% _____ 100% _____
6. What is your job title? _____
7. Please check your highest education level
High school or less _____ College degree _____ Bachelor degree _____ Master _____
Doctorate _____

Employee name _____

Using the scale provided, please indicate how the employee named above performed the following statement.	<i>Very Poor</i>								<i>Very Good</i>
Overall quantity of work performed	1	2	3	4	5	6	7	8	9
Overall quality of work performed	1	2	3	4	5	6	7	8	9
Overall job performance	1	2	3	4	5	6	7	8	9

Using the scale provided, please indicate how the employee named above performed the following statement.	<i>Very Poor</i>								<i>Very Good</i>
Level of sales generated	1	2	3	4	5	6	7	8	9
Ability to achieve sales targets	1	2	3	4	5	6	7	8	9

Using the scale provided, please indicate how the employee named above performed the following statement.	<i>Very Poor</i>								<i>Very Good</i>
Quality of interactions with customers	1	2	3	4	5	6	7	8	9
Ability to satisfy customer needs	1	2	3	4	5	6	7	8	9

	<i>Never</i>								<i>Very Often</i>
To what extent have you had a chance to observe employee (named above) perform his job	1	2	3	4	5	6	7	8	9
To what extent have you seen the employee (named above) interacting with customers	1	2	3	4	5	6	7	8	9

동의서 (Employee survey in Korean)

연구자: 정진호

명시사항: 우리는 본 연구 논문 (근로자와 그들의 고객과의 상호작용에 대한 이해)에 도움을 주시는 여러분께 감사의 말씀을 드립니다. 이 연구는 학술적 연구 과제입니다; 연구자들은 본 연구 결과가 고객을 상대하는 종업원들이 보다 즐겁고 생산적인 업무 경험을 하는데 도움이 되기를 바랍니다.

본 연구에 대한 여러분의 참여는 전적으로 자발적이며 참여하기를 거부할 권리가 있습니다. 만일 여러분께서 참여하기를 동의하신다면, 다음에 제시된 질문들에 대해 답해 주시길 부탁드립니다. 만일 여러분께서 참여하시기를 동의하지 않으신다면, 설문지를 제공된 봉투에 넣어서 봉해 주시길 부탁드립니다. 직장의 어느 누구도 여러분의 설문 문항에 접근할 수 없으니 가능한 솔직하게 응답하여 주시길 간곡히 부탁드립니다. 이 설문조사에는 약 20 분 정도가 소요될 예정입니다. 만약 본 설문조사에 대해 질문이 있는 경우 주 연구자인 오클라호마 주립대 경영대학 마케팅 박사과정생인 정진호 (e-mail: jhjung@okstate.edu, Phone: 614-769-5161) 또는 지도교수인 Tom J. Brown 박사 (e-mail: tom.brown@okstate.edu, Phone: 405-744-5113) 에게 문의해 주시기 바랍니다. 만약 설문 참여자로서의 권리에 대한 의문이 있다면 IRB 책임자인 Hugh Crethar 박사 (IRB Chair, 219 Cordell North, Stillwater, Ok 74078, 405-744-3377 or irb@okstate.edu) 에게 연락을 주시기 바랍니다.

본 연구자들은 설문문항에 대한 여러분의 응답과 직장 상사 응답과의 관련성을 알아보기 위해 여러분의 성함을 요청하는 바 입니다; 본 연구자들은 여러분 직장상사에게 여러분과 고객과의 상호작용과 관련되는 피드백을 요청하는 바입니다. 본 연구자들은 직장의 어느 누구도 여러분의 설문 문항에 대한 응답 또는 고객과 관련된 여러분의 성과와 관련된 직장 상사의 평가에 대한 응답에 접근할 수 없다는 사실을 다시 한번 말씀 드리고자 합니다.

여러분의 비밀을 보장하기 위해서, 본 연구자들은 작성된 설문지를 접은 후 제공된 봉투에 넣어서 여러분의 서명과 함께 봉해 주시길 부탁드립니다. 그 다음에, 여러분의 봉해진 봉투를 연구자들에게 직접 전달해 주시기를 부탁드립니다. 따라서 연구자 이외에 어느 누구도 여러분의 설문지에 접근할 수 없을 것입니다. 자료가 수집되고 직장상사 응답과 연관시킨 후에 여러분의 성함은 데이터 목록에서 지울 것입니다. 연구 분석이 완료된 후에 설문지들은 파기할 것입니다. 여러분의 성함과 서명은 본 연구에 자발적으로 참여를 의미합니다. 다시 한 번 여러분의 도움에 감사드립니다.

동의서: 나는 위에 명시된 사항을 읽었고, 본 연구에 참여하기를 동의합니다.

서명 _____ 날짜 _____

성함 _____

다음의 질문에 어느 정도 동의하는지 응답하여 주시기 바랍니다.	전혀 동의 하지 않는다					매우 동의한다	
	1	2	3	4	5	6	7
나는 타인에게 도움이 될 수 있는 일을 할 때 활력이 넘친다.	1	2	3	4	5	6	7
나는 타인에게 도움이 될 수 있는 일을 좋아한다.	1	2	3	4	5	6	7
나는 타인에게 긍정적인 효과를 주는 일을 선호한다.	1	2	3	4	5	6	7
나는 타인의 행복에 기여하는 일에 최선을 다한다.	1	2	3	4	5	6	7
나는 타인을 돕기 위해 나의 능력을 쓸 기회를 얻는 것을 중요하게 생각한다.	1	2	3	4	5	6	7

다음의 질문에 어느 정도 동의하는지 응답하여 주시기 바랍니다.	전혀 동의 하지 않는다					매우 동의한다	
	1	2	3	4	5	6	7
고객들의 요청은 내가 다양한 업무 능력을 기르게 만든다.	1	2	3	4	5	6	7
고객들의 요청은 내가 업무를 마치는데 다양한 업무 능력을 키워준다.	1	2	3	4	5	6	7
고객들의 요청은 궁극적으로 내가 업무를 더 잘할 수 있도록 한다.	1	2	3	4	5	6	7
고객들의 요청은 결과적으로 내가 다양한 업무 능력을 습득하게 한다.	1	2	3	4	5	6	7
고객들의 요청은 내가 업무를 더 잘 배울 수 있게 한다.	1	2	3	4	5	6	7
고객들의 요청은 내가 업무를 위해 다양한 능력을 발휘할 수 있도록 해준다.	1	2	3	4	5	6	7

다음의 질문 사항을 다시 한번 고려해 주시기 바랍니다. 이번에는, 다음의 상황을 얼마나 자주 경험하는지 응답하여 주시기 바랍니다.

다음의 상황을 얼마나 자주 경험하는지 응답하여 주시기 바랍니다.	매우 드물게					매우 자주	
	1	2	3	4	5	6	7
고객들의 요청은 내가 다양한 업무 능력을 기르게 만든다.	1	2	3	4	5	6	7
고객들의 요청은 내가 업무를 마치는데 다양한 업무 능력을 키워준다.	1	2	3	4	5	6	7
고객들의 요청은 궁극적으로 내가 업무를 더 잘할 수 있도록 한다.	1	2	3	4	5	6	7
고객들의 요청은 결과적으로 내가 다양한 업무 능력을 습득하게 한다.	1	2	3	4	5	6	7
고객들의 요청은 내가 업무를 더 잘 배울 수 있게 한다.	1	2	3	4	5	6	7
고객들의 요청은 내가 업무를 위해 다양한 능력을 발휘할 수 있도록 해준다.	1	2	3	4	5	6	7

업무에 임할 때 동기가 부여되는 이유가 무엇입니까?	전혀 동의 하지 않는다					매우 동의한다	
업무 자체를 즐기기 때문에	1	2	3	4	5	6	7
업무가 재미있기 때문에	1	2	3	4	5	6	7
업무에 끌리기 때문에	1	2	3	4	5	6	7
업무가 즐겁기 때문에	1	2	3	4	5	6	7

다음의 질문에 어느 정도 동의하는지 응답하여 주시기 바랍니다.	전혀 동의 하지 않는다					매우 동의한다	
고객들의 요구는 실제로 내가 그들을 돕는 걸 더 어렵게 만든다.	1	2	3	4	5	6	7
고객들의 요구는 나의 업무 수행을 방해한다.	1	2	3	4	5	6	7
고객들의 요구는 내가 그들을 돕는 능력을 저해한다.	1	2	3	4	5	6	7
고객들의 요구는 내 업무 속도를 지연시킨다.	1	2	3	4	5	6	7
고객들의 요구는 업무 처리 능력을 방해한다.	1	2	3	4	5	6	7

다음의 질문 사항을 다시 한번 고려해 주시기 바랍니다. 이번에는, 다음의 상황을 얼마나 자주 경험하는지 응답하여 주시기 바랍니다.

다음의 상황을 얼마나 자주 경험하는지 응답하여 주시기 바랍니다.	매우 드물게					매우 자주	
고객들의 요구는 실제로 내가 그들을 돕는 걸 더 어렵게 만든다.	1	2	3	4	5	6	7
고객들의 요구는 나의 업무 수행을 방해한다.	1	2	3	4	5	6	7
고객들의 요구는 내가 그들을 돕는 능력을 저해한다.	1	2	3	4	5	6	7
고객들의 요구는 내 업무 속도를 지연시킨다.	1	2	3	4	5	6	7
고객들의 요구는 업무 처리 능력을 방해한다.	1	2	3	4	5	6	7

가장 최근에 여러분이 받으신 직장 내 업무 연수 훈련에 대해 생각해 주시기 바랍니다. 그리고, 최근 받으신 업무 연수와 관련하여 다음의 질문에 응답하여 주시기 바랍니다.

다음의 질문에 어느 정도 동의하는지 응답하여 주시기 바랍니다.	전혀 동의 하지 않는다				매우 동의한다
업무 연수는 어려운 업무를 처리할 수 있도록 도움이 되었다.	1	2	3	4	5
업무 훈련은 실질적으로 도움이 되었다.	1	2	3	4	5
업무 훈련을 충분히 할 수 있었다.	1	2	3	4	5

다음의 질문에 어느 정도 동의하는지 응답하여 주시기 바랍니다.	전혀 동의 하지 않는다									매우 동의한다
나는 업무를 열심히 처리한다.	1	2	3	4	5	6	7	8	9	
나는 업무에 전력을 다한다.	1	2	3	4	5	6	7	8	9	
나는 업무에 많은 노력을 기울인다.	1	2	3	4	5	6	7	8	9	
나는 업무를 더욱더 잘 수행하기 위해 부단히 노력한다.	1	2	3	4	5	6	7	8	9	
나는 업무를 처리하는데 있어 최선을 다한다.	1	2	3	4	5	6	7	8	9	
나는 업무에 있는 힘껏 노력한다.	1	2	3	4	5	6	7	8	9	

다음의 질문에 어느 정도 동의하는지 응답하여 주시기 바랍니다.	전혀 동의 하지 않는다					매우 동의한다
나의 직장 상사는 나와 동료들의 직장 내 복지에 관심이 있다.	1	2	3	4	5	
나의 직속 상사는 업무와 관련된 문제에 대해 귀 기울여 들어준다.	1	2	3	4	5	
나의 직속 상사는 내가 어려운 일에 직면했을 때 도움을 준다.	1	2	3	4	5	

다음의 질문에 어느 정도 동의하는지 응답하여 주시기 바랍니다.	전혀 동의 하지 않는다									매우 동의한다
나는 나의 업무에 열성적이다.	1	2	3	4	5	6	7	8	9	
나는 나의 업무에서 활기를 느낀다.	1	2	3	4	5	6	7	8	9	
나는 나의 업무에 관심이 있다.	1	2	3	4	5	6	7	8	9	
나는 나의 업무가 자랑스럽다.	1	2	3	4	5	6	7	8	9	
나는 나의 업무를 긍정적으로 생각한다.	1	2	3	4	5	6	7	8	9	
나는 나의 업무가 흥미롭다.	1	2	3	4	5	6	7	8	9	

다음의 질문에 어느 정도 동의하는지 응답하여 주시기 바랍니다.	전혀 사실이 아니다					매우 그렇다
고객들이 바라는 것은 종종 앞뒤가 맞지 않다.	1	2	3	4	5	
고객들의 요구 사항은 분명하지가 않다.	1	2	3	4	5	
고객들과 의견을 조율하는 것은 어렵다.	1	2	3	4	5	
고객들의 지시 사항은 우리의 업무를 더 까다롭게 만든다.	1	2	3	4	5	

다음의 질문에 어느 정도 동의하는지 응답하여 주시기 바랍니다.	전혀 동의 하지 않는다									매우 동의한다
직장에서, 나는 업무에 정신을 집중한다.	1	2	3	4	5	6	7	8	9	
직장에서, 나는 업무에 많은 주의를 기울인다.	1	2	3	4	5	6	7	8	9	
직장에서, 나는 업무에 훨씬 더 주의를 집중한다.	1	2	3	4	5	6	7	8	9	
직장에서, 나는 업무에 몰두한다.	1	2	3	4	5	6	7	8	9	
직장에서, 나의 업무에 집중한다.	1	2	3	4	5	6	7	8	9	
직장에서, 나는 업무에 많은 주의를 쏟는다.	1	2	3	4	5	6	7	8	9	

다음의 질문에 어느 정도 동의하는지 응답하여 주시기 바랍니다.	전혀 동의 하지 않는다							매우 동의한다
나의 업무는 건강에 영향을 미치는 편이다.	1	2	3	4	5	6	7	
하루가 끝나는 순간에도 나는 업무 스트레스를 받는다.	1	2	3	4	5	6	7	
업무 관련 문제는 내가 잠을 잘 못 자게 만든다.	1	2	3	4	5	6	7	
업무 때문에 불안함을 느낀다.	1	2	3	4	5	6	7	

다음의 상황을 얼마나 자주 경험하는지 응답하여 주시기 바랍니다.	매우 드물게							매우 자주
고객들의 요구 사항을 처리하는데 얼마나 자주 시간적 압박을 경험합니까?	1	2	3	4	5	6	7	
고객들의 요구 사항을 처리하기 위해 얼마나 자주 초과 근무를 합니까?	1	2	3	4	5	6	7	

다음의 질문에 어느 정도 만족하는지 응답하여 주시기 바랍니다.	매우 불만족한다					매우 만족한다
나는 직업에 전반적으로 만족한다.	1	2	3	4	5	
나는 직장 동료에 대해 만족한다.	1	2	3	4	5	
나는 직장 상사에 대해 만족하는 편이다.	1	2	3	4	5	
나는 회사 방침에 만족하는 편이다.	1	2	3	4	5	
회사가 제공하는 지원에 만족하는 편이다.	1	2	3	4	5	
나는 보수에 만족한다.	1	2	3	4	5	
나는 회사에서 주어지는 발전의 기회에 만족한다.	1	2	3	4	5	
나는 회사의 고객들에 대해 만족한다.	1	2	3	4	5	

	전혀 고려 하지 않는					매우 자주
현업에 대한 퇴사를 얼마나 자주 고려합니다?	1	2	3	4	5	6

	전혀 고려 하지 않는					매우 자주
얼마나 자주 이직을 고려하고 있습니까?	1	2	3	4	5	6

	전혀 그럴꺼 같지 않다					매우 그럴꺼 같다
앞으로 1년간 현재 회사에서 일하실 거 같습니다?	1	2	3	4	5	6

다음의 질문에 어느 정도 동의하는지 응답하여 주시기 바랍니다.	전혀 동의 하지 않는다					매우 동의한다
나는 나의 업무를 어떻게 처리해야 할지 결정권을 가진다.	1	2	3	4	5	
나는 나의 업무를 어떻게 진행할지 스스로 결정할 수 있다.	1	2	3	4	5	
나는 나의 업무를 자유롭게 처리할 수 있다.	1	2	3	4	5	

다음의 질문에 어느 정도 동의하는지 응답하여 주시기 바랍니다.	전혀 동의 하지 않는다					매우 동의한다
나는 업무 수행 능력에 대해 전반적으로 자신감이 있다.	1	2	3	4	5	6 7
나는 상품을 고객에게 능숙하게 판매하는 편이다.	1	2	3	4	5	6 7
나는 업무를 성공적으로 수행할 수 있는 능력이 있다.	1	2	3	4	5	6 7

	매우 적게							매우 많이
하루 동안, 얼마나 많은 고객과 접촉하십니까?	1	2	3	4	5	6	7	8 9

다음은 인구통계학적 질문입니다. 빈칸을 채우시거나 해당 사항에 O 표를 해주시기 바랍니다.

1. 성별? 남성 _____ 여성 _____
2. 귀하의 연령은? 25 세 이하 _____ 26-39 세 사이 _____ 40-55 세 사이 _____ 56 세 이상 _____
3. 귀하가 현재 직장에 종사한 총 년 수는? _____ 년 _____ 개월
4. 귀하는 얼마 동안 현업에 종사했습니까? _____ 년 _____ 개월
5. 대략적으로, 귀하는 전체 업무 중 하루에 어느 정도 고객과 접촉하십니까?
10% _____ 20% _____ 30% _____ 40% _____ 50% _____

60% _____ 70% _____ 80% _____ 90% _____ 100% _____

6. 귀하의 직책은? _____

7. 귀하의 최종 학력을 표시해 주십시오.

고졸 이하 _____ 전문대 졸 _____ 4년제 대학교 졸 _____ 석사학위 _____ 박사학위 _____

동의서 (Supervisor survey in Korean)

연구자: 정진호

명시사항: 우리는 본 연구 논문 (근로자와 그들의 고객과의 상호작용에 대한 이해)에 도움을 주시는 여러분께 감사의 말씀을 드립니다. 이 연구는 학술적 연구 과제입니다; 연구자들은 본 연구 결과가 고객을 상대하는 종업원들이 보다 즐겁고 생산적인 업무 경험을 하는데 도움이 되기를 바랍니다.

본 연구에 대한 여러분의 참여는 전적으로 자발적이며 참여하기를 거부할 권리가 있습니다. 만일 여러분께서 참여하기를 동의하신다면, 여러분이 감독하는 각각의 종업원들과 관련된 질문들에 대해 답해 주시길 부탁드립니다. 만일 여러분께서 참여하시기를 동의하지 않으신다면, 설문지를 제공된 봉투에 넣어서 봉해 주시길 부탁드립니다. 직장의 어느 누구도 여러분의 설문 문항에 접근할 수 없으니 가능한 솔직하게 응답하여 주시길 간곡히 부탁드립니다. 이 설문조사에는 종업원 1인당 약 3분 정도가 소요될 예정입니다. 만약 본 설문조사에 대해 질문이 있는 경우 주 연구자인 오클라호마 주립대 경영대학 마케팅 박사과정생인 정진호 (e-mail: jhjung@okstate.edu, Phone: 614-769-5161) 또는 지도교수인 Tom J. Brown 박사 (e-mail: tom.brown@okstate.edu, Phone: 405-744-5113) 에게 문의해 주시기 바랍니다. 만약 설문 참여자로서의 권리에 대한 의문이 있다면 IRB 책임자인 Hugh Crethar 박사 (IRB Chair, 219 Cordell North, Stillwater, Ok 74078, 405-744-3377 or irb@okstate.edu) 에게 연락을 주시기 바랍니다.

본 연구자들은 설문문항에 대한 여러분의 응답과 직장 상사 응답과의 관련성을 알아보기 위해 여러분의 성함을 요청하는 바입니다; 본 연구자들은 여러분 직장상사에게 여러분과 고객과의 상호작용과 관련되는 피드백을 요청하는 바입니다. 본 연구자들은 직장의 어느 누구도 여러분의 설문 문항에 대한 응답 또는 고객과 관련된 여러분의 성과와 관련된 직장 상사의 평가에 대한 응답에 접근할 수 없다는 사실을 다시 한번 말씀 드리고자 합니다.

여러분의 비밀을 보장하기 위해서, 본 연구자들은 작성된 설문지를 접은 후 제공된 봉투에 넣어서 여러분의 서명과 함께 봉해 주시길 부탁드립니다. 그 다음에, 여러분의 봉해진 봉투를 연구자들에게 직접 전달해 주시기를 부탁드립니다. 따라서 연구자 이외에 어느 누구도 여러분의 설문지에 접근할 수 없을 것입니다. 자료가 수집되고 직장상사 응답과 연관시킨 후에 여러분의 성함은 데이터 목록에서 지울 것입니다. 연구 분석이 완료된 후에 설문지들은 파기할 것입니다. 여러분의 성함과 서명은 본 연구에 자발적으로 참여를 의미합니다. 다시 한 번 여러분의 도움에 감사드립니다.

동의서: 나는 위에 명시된 사항을 읽었고, 본 연구에 참여하기를 동의합니다.

서명 _____ 날짜 _____

성함 _____

다음은 인구통계학적 질문입니다. 빈칸을 채우시거나 해당사항에 O 표를 해주시기 바랍니다. (한 번만
응답하세요!)

1. 성별? 남성 _____ 여성 _____
2. 귀하여 연령은? 25 세 이하 _____ 26-39 세 사이 _____ 40-55 세 사이 _____ 56 세
이상 _____
3. 귀하가 현재 직장에 종사한 총 년 수는? _____ 년 _____ 개월
4. 귀하는 얼마 동안 현업에 종사했습니다? _____ 년 _____ 개월
5. 대략적으로, 귀하는 업무 가운데 어느 정도를 고객과 접촉하십니까?
10% _____ 20% _____ 30% _____ 40% _____ 50% _____
60% _____ 70% _____ 80% _____ 90% _____ 100% _____
6. 귀하의 직책은? _____
7. 귀하의 최종학력을 표시해 주십시오.
고졸 이하 _____ 전문대 졸 _____ 4 년제 대학교 졸 _____ 석사학위 _____ 박사학위

종업원의 성명 _____

종업원의 업무 수행 정도에 대해 응답하여 주시길 바랍니다.	매우 좋지 못하다								매우 좋은 편이다
위에 기재된 종업원의 <u>전반적인 업무 수행의 양적인 성과</u> 는 어떠합니까?	1	2	3	4	5	6	7	8	9
위에 기재된 종업원의 <u>전반적인 업무 수행의 질적인 성과</u> 는 어떠합니까?	1	2	3	4	5	6	7	8	9
위에 기재된 종업원의 <u>전반적인 업무 성적</u> 은 어떠합니까?	1	2	3	4	5	6	7	8	9

종업원의 업무 수행 정도에 대해 응답하여 주시길 바랍니다.	매우 좋지 못하다								매우 좋은 편이다
위에 기재된 종업원의 <u>상품에 대한 매출 실적</u> 은 어떠합니까?	1	2	3	4	5	6	7	8	9
위에 기재된 종업원의 <u>영업 목표 달성을 위한 업무 능력</u> 은 어떠합니까?	1	2	3	4	5	6	7	8	9

종업원의 업무 수행 정도에 대해 응답하여 주시길 바랍니다.	매우 좋지 못하다								매우 좋은 편이다
위에 기재된 종업원의 <u>고객을 응대하는 능력</u> 은 어떠합니까?	1	2	3	4	5	6	7	8	9
위에 기재된 종업원의 <u>고객을 만족시키기 위한 업무 능력</u> 은 어떠합니까?	1	2	3	4	5	6	7	8	9

	전혀 관찰하지 않는								매우 자주
얼마나 자주 위에 기재된 종업원의 <u>업무 수행에 대해 주의깊게</u> 관찰하십니까?	1	2	3	4	5	6	7	8	9
얼마나 자주 위에 기재된 종업원의 <u>고객과의 의사소통에 대해 주의깊게</u> <u>관찰</u> 하십니까?	1	2	3	4	5	6	7	8	9

Oklahoma State University Institutional Review Board

Date: Friday, October 24, 2014
IRB Application No BU1468
Proposal Title: Empirical Investigation of Challenge and Hindrance Appraisals of Customer Demands
Reviewed and Processed as: Expedited

Status Recommended by Reviewer(s): Approved Protocol Expires: 10/23/2015

Principal Investigator(s):

Jin Ho Jung Tom Brown
217 Hanner 505 S. Main St.
Stillwater, OK 74078 Stillwater, OK 74074

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

VITA

Jin Ho Jung

Candidate for the Degree of

Doctor of Philosophy

Thesis: EMPIRICAL INVESTIGATION OF CHALLENGE AND HINDRANCE
APPRAISALS OF CUSTOMER DENAMDS

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.

2009-2011 Masters of Applied Statistics, The Ohio State University

2001-2008 Bachelor of Business Administration, Chung-Ang University

Experience:

2014-2015 Graduate Teaching Assistant, Oklahoma State University

2011-2013 Graduate Research Assistant, Oklahoma State University

Professional Memberships:

Member, American Marketing Association, 2013-present