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RELATIONSHIPS AMONG THE PERCEIVED AND PREFERRED COACHING BEHAVIORS,
JOB SATISFACTION, AND ADAPTIVE WORK BEHAVIORS
AMONG EMPLOYEES OF A SOUTH KOREAN ORGANIZATION
WITH THE QUALITY OF RELATIONSHIPS WITH IMMEDIATE SUPERVISORS
AS A MEDIATING VARIABLE

BY

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DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in Human Resource Education
with a concentration in Human Resource Development
in the Graduate College of the
University of Illinois Urbana-Champaign, 2021

Urbana, Illinois

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ABSTRACT

To respond to rapidly changing business environments, organizations strive to enable their employees to carry out designated roles with adaptability, eventually resulting in better performance. Under such circumstances the manager as a coach has been popularized as a way of improving the competency and performance of employees. Managerial coaching also allows employees to experience job satisfaction and reciprocal relationships with their supervisors.

Researchers have studied the relationships among managerial coaching, job satisfaction, adaptive work behaviors, and the quality of relationships with supervisors; however, the relationship between perceived and preferred managerial coaching behaviors and the meaning of the discrepancy between them are only partially understood. The conceptual framework from the perspective of human resource development suggested that the quality of the employees' relationship with their immediate supervisor mediates the relationships among their perceived and preferred coaching behaviors, the discrepancy between perceived and preferred coaching behaviors, job satisfaction, and adaptive work behaviors.

Thus, the current study explored the relationship between perceived and preferred coaching behaviors. This was followed by an analysis of the manner in which the quality of the relationship with the immediate supervisor was researched with three independent variables: perceived coaching behaviors, preferred coaching behaviors, and the discrepancy between them. The influences of the quality of the relationship with the immediate supervisor were examined with respect to two job-relevant outcomes: job satisfaction and adaptive work behaviors. The quality of the relationship with the immediate supervisor as a mediator was investigated with the three independent variables and the two job-relevant outcomes.

A cross-sectional survey was adopted, and data were collected from 228 team members of a multinational company in South Korea; 220 samples were retained for analysis. A Pearson correlation showed no evidence that perceived and preferred coaching behaviors influence each other significantly. Structural equation modeling (SEM) was used to analyze the relationships among the three independent variables, mediator, and two outcomes. Perceived coaching behaviors had a significant influence on the quality of the relationship with the immediate supervisor, but the other two independent variables did not. Although relationship quality affected job satisfaction significantly, its effect on adaptive work behaviors was not significant. The quality of the relationship mediated perceived coaching behaviors' effect on job satisfaction. Perceived coaching behaviors and the discrepancy between perceived and preferred coaching behaviors significantly influenced adaptive work behaviors.

The additional paths were examined in this study. The discrepancy and adaptive work behaviors affected job satisfaction. Adaptive work behaviors mediated the influences of both perceived coaching behaviors and the discrepancy on job satisfaction.

These findings are discussed based upon the literature and theoretical perspectives. The implications for HRD research and practice are considered, and recommendations for future studies are suggested to address the study's limitations.

Dedicated to my parents,
Geejin Hwang and Youngsook Jung,
And to my brother and sister,
Seokjoo and Sunok Hwang

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CHAPTER 1

INTRODUCTION

In recent years the manager's role as a coach has rapidly emerged as a new management approach in organizations (Beattie et al., 2014; Ellinger et al., 2008). Until the 1980s a manager focused on performance assessment and generally neglected the role of coach in management functions (Allenbaugh, 1983; Ellinger et al., 2003; Orth et al., 1987), but since then one of the fundamental roles of a manager has been that of coach (Ellinger et al., 2008). Forty percent of frontline managers performed this role in U.K. workplaces in 2006 (Ellinger & Kim, 2014), but 10 years later 80% of U.K. organizations expected their managers to perform as coaches in the workplace (Lawrence, 2017). Furthermore, 66% of U.K. organizations anticipated that coaching behaviors would continually increase (Chartered Institute of Personnel and Development, 2015).

Deloitte's 2017 *Global Human Capital Trends* report investigating over 10,000 HR practitioners around the world indicated that managerial coaching would be one of the methods needed to manage the performance of employees and maintain a company's competitive advantage by responding to changes in the business environment (Sloan et al., 2017). When Google, one of the largest information technology (IT) companies, analyzed its human resource (HR) big data, 10 manager behaviors for creating a high-performance organization were identified (Garvin et al., 2013). "Be a good coach" was the top priority among the 10 behaviors.

Thus, coaching practices provided by a manager serve a critical function in an organization (Sloan et al., 2017). In fact, the most effective on-the-job learning happens under the auspices of a manager or an experienced coworker (Garvin et al., 2013; Tannenbaum, 1997). With theoretical and contextual knowledge of a job, supervisors play the learning-resource or

guide role for a subordinate (Jones et al., 2016) because theoretical knowledge can be obtained from off-the-job learning, but contextual knowledge and cognitive strategies require experience in actual workplaces (Jacobs, 2017). Lacking help from a supervisor, a subordinate may not understand or properly acquire contextual knowledge and cognitive strategies (Stein, 2001), making managerial coaching a necessary process in developing the competencies of employees (Gorman et al., 2004; Jacobs, 2017).

More specifically, a manager observes the behaviors of a subordinate at work and offers timely and individualized feedback and solutions to him or her (Jacobs, 2017; Liu & Batt, 2010). A manager, who frequently communicates with a subordinate in a process designed to set goals, give feedback, or suggest a solution (Latham & Locke, 2007), delivers information on the work context to a subordinate (Liu & Batt, 2010), who understands the social norms of an organization and gains situation-specific knowledge (Stein, 2001). Coaching from a manager helps a subordinate internalize job knowledge and cognitive strategies in a specific situation (Jacobs, 2017).

In the workplace precise questions from a manager promote reflection by a subordinate to identify work-relevant problems and develop solutions (Pousa & Mathieu, 2014). The proper empowerment of the manager as a coach motivates a subordinate to explore work context and solutions (Hui et al., 2013). Managerial coaching enables a subordinate to develop both situational job knowledge (Hui & Sue-Chan, 2018) and innovative knowledge (X. Zhang & Bartol, 2010).

In addition to the enhancement of employee competency, managerial coaching creates a positive work climate (Beattie et al., 2014; Kim, 2014). Just as timely and individualized feedback and solutions from a supervisor allow a subordinate to understand how to achieve a

work goal (Kim et al., 2014), the proper empowerment of a supervisor facilitates a subordinate's self-directedness in work (Kim et al., 2013). These kinds of experiences increase the subordinate's satisfaction with work (Graen & Uhl-Bien, 1991).

Frequent interaction between a supervisor and subordinate provides opportunities to understand each other (Graen & Uhl-Bien, 1995; Liu & Batt, 2010); it also develops a strong reciprocal relationship between the two parties (Kim & Kuo, 2015), which results in the subordinate's satisfaction with work (Graen & Uhl-Bien, 1991). Because satisfaction with work makes immersion in a job more likely, the subordinate shows performance improvement (Kim et al., 2014). In other words, managerial coaching contributes to cultivating a positive work climate that fosters a reciprocal relationship with a supervisor and satisfaction with work. With the enhancement of employee competency, the positive climate operates as a background for enhancing organizational performance (Beattie et al., 2014; Kim, 2014).

Consequently, the manager as a coach is considered one of the most effective methods for improving employee competency and for developing organizational performance (Ellinger et al., 2008; Garvin et al., 2013; Sloan et al., 2017). Thus, numerous researchers have recently grown interested in managerial coaching as a prospective research topic (Beattie et al., 2014; Ellinger & Kim, 2014).

Problem Statement

Coaching is often considered one of the most important roles of managers (Ellinger et al., 2008), and studies have been conducted on what makes some managers more effective as coaches than others (Lawrence, 2017). This research trend has led researchers to pay attention to observable actions, resulting in the identification of various effective coaching behaviors

(Ellinger & Bostrom, 1999). Studying these behaviors, researchers have systematically investigated what kinds of changes can be expected from subordinates internally and externally after managerial coaching (Beattie et al., 2014; Hagen, 2012). Because of these investigations the effectiveness of managerial coaching has been proven, and expected outcomes have been discovered (David & Matu, 2013; Lawrence, 2017); therefore, expected changes in a subordinate have been somewhat clarified as a result of the coaching practice of a supervisor.

However, the relationship between perceived and preferred coaching behaviors and the meaning of the discrepancy between them are only partially understood. Previous researchers have argued that the relationship between subordinates' perceived and preferred supervisory behaviors requires examination to predict outcomes accurately (Chelladurai, 1984; Hunt & Liebscher, 1973; Schliesman, 1987; Singer & Singer, 1990). Some have claimed that subordinates produce expected outcomes when their preferences match their perceived supervisory behaviors (Hersey et al., 2012; Vecchio & Boatwright, 2002), but researchers have rarely studied the relationship between perceptions and preferences in managerial coaching as predictors of outcomes (House, 1996).

Similar to managerial coaching activities, subordinates' perceptions of coaching behaviors are highly related to personal and situational characteristics of the supervisor (Chelladurai, 1984). Subordinates perceived frequent coaching behavior when supervisors had particular characteristics, including belief, self-efficacy, transformational leadership style, and feedback orientation (Anderson, 2013; Heslin et al., 2006; M. C. C. Lee et al., 2019; Moran, 2013; Steelman & Wolfeld, 2018).

Subordinates' perceptions of coaching behaviors were positively associated with situational characteristics, such as coaching training for supervisors and stable organization

cultures and structures (Baek, 2008; Heslin et al., 2006; Moran, 2013); in reality few organizations exhibited these situational characteristics (Beattie et al., 2014). According to perception surveys (Beattie et al., 2014; Gilley et al., 2010), most subordinates perceived infrequent coaching behaviors from their supervisors.

Preferred coaching behaviors are shaped by the individual and situational characteristics of subordinates (Chelladurai, 1984). Individual characteristics include a need for independence, competencies, and achievement orientation (House & Mitchell, 1975; Vroom, 1959; Yukl, 1971), characteristics negatively related to coaching behaviors for clarifying a role (Ellinger & Bostrom, 1999; Kim et al., 2013). According to studies on the Big Five personality traits (Parmer et al., 2013), extraverted subordinates likely prefer managerial coaching behaviors (Judge & Piccolo, 2004; M. C. C. Lee et al., 2019; Moss & Ngu, 2006).

Situational characteristics of subordinates include task demands and role ambiguity (House, 1996). In empirical studies, the influences of these situational characteristics on preference have not been verified (Dessler & Valenzi, 1977; Keller, 1989; Stinson & Johnson, 1975) because their effectiveness is suppressed by individual characteristics, such as competencies and nontask orientation (Vecchio & Boatwright, 2002; Yukl, 1971). In previous studies little to no evidence can be found to show that subordinates' perceived and preferred coaching behaviors are related to each other or affected by the same characteristics.

Leadership influence occurs in the leader–member exchange (LMX) relationship (Dansereau et al., 1975), the quality of which proceeds through the role-making process (Graen & Uhl-Bien, 1991). In empirical studies (Kim & Kuo, 2015; Sluss & Thompson, 2012), supervisors' coaching behaviors perceived by subordinates exerted a positive effect on high-quality relationships with supervisors. Because managerial coaching behaviors are helpful in

reaching the common goals of the two parties, their relationship quality is improved (Sluss & Thompson, 2012). Perceived coaching behaviors were also shown to increase the manager's trustworthiness, which is the foundation for the development of the quality of the LMX relationship (Kim & Kuo, 2015). Thus, a subordinate's perceived coaching behaviors increase the quality of the relationship with the immediate supervisor who coaches.

According to several studies, extraverted subordinates—a personality trait—tended to have high-quality relationships with supervisors (Nahrgang et al., 2009; Phillips & Bedeian, 1994); furthermore, these subordinates preferred transformational leadership behaviors (Moss & Ngu, 2006; Parmer et al., 2013), the characteristics of which are the same as those of managerial coaching (Judge & Piccolo, 2004; M. C. C. Lee et al., 2019). Thus, the coaching behaviors a subordinate prefers may be positively associated with the quality of the relationship with the supervisor who coaches.

A subordinate's expectations for supervisory behaviors influence the quality of the LMX relationship (Nahrgang & Seo, 2015). The discrepancy between a subordinate's expected and perceived leadership characteristics was negatively associated with the quality of the LMX relationship (Epitropaki & Martin, 2005). A subordinate evaluates leadership behaviors by comparing them with his or her own ideal image of leader characteristics (Epitropaki & Martin, 2005). If the subordinate perceives the difference between the ideal and real behaviors of the supervisor, the person is unlikely to accept the supervisory behaviors (Lord, 1985), leaving the social exchange between the two parties at a standoff (Graen & Uhl-Bien, 1995). Thus, the discrepancy between a subordinate's perceived and preferred managerial coaching behaviors may hinder the development of the quality of the relationship with the supervisor.

In high-quality LMX relationships, a supervisor willingly permits and supports the decisions of a subordinate (Burns & Otte, 1999; Dansereau et al., 1975). By contrast, a supervisor does not allow subordinates in low-quality relationships to have work empowerment. A subordinate perceives work empowerment and supervisory support as a privilege when comparing himself or herself with others (Volmer et al., 2011). Work empowerment and supervisory support allow a subordinate to experience the five core dimensions of job characteristics (Graen et al., 1982), and the experience satisfies the subordinate's need for growth (Hackman & Lawler, 1971; Parker & Ohly, 2008). Consequently, the job satisfaction of a subordinate is facilitated by the privilege and growth experienced in high-quality LMX relationships (Volmer et al., 2011).

Studies have shown that both a subordinate and a supervisor experienced in-group identity in a high-quality relationship (Graen & Uhl-Bien, 1995). When a subordinate felt in-group identity, she or he held certain attitudes like organizational commitment, work obligation, high loyalty to and trust in a supervisor, psychological safety, risk taking, and self-efficacy on tasks (L. Huang et al., 2016; J. Lee, 2008; Liao et al., 2010; Pan et al., 2012; Sweet et al., 2015; Tierney & Farmer, 2002; Zhao et al., 2013), factors that motivated adaptive work behaviors (Matta & Van Dyne, 2015). In addition, in high-quality relationships a supervisor increased support (Basu & Green, 1997; Hassanzadeh, 2014) in the form of knowledge sharing, goal setting, and feedback (Audenaert et al., 2019), factors that increased the adaptive work behaviors of subordinates by improving their competency (Basu & Green, 1997). Thus, subordinates' adaptive work behaviors were encouraged by their own motivational states as well as the support of their supervisors (Basu & Green, 1997).

Demonstrated in the studies noted above, little to no mutual relation between perceived and preferred coaching behaviors has been verified. All independent variables influence job-relevant outcomes, mediated by the quality of the relationship with the immediate supervisor. To be specific, two of the independent variables—perceived and preferred coaching behaviors—positively affect the quality of the relationship with the immediate supervisor. Relationship quality improves the two job-relevant outcomes—job satisfaction and adaptive work behaviors. Relationship quality is a positive mediator for two of the independent variables and the two job-relevant outcomes.

The discrepancy between perceived and preferred coaching behaviors exerts a negative influence on the quality of the relationship with the immediate supervisor. Relationship quality positively impacts the two job-relevant outcomes—job satisfaction and adaptive work behaviors. The quality of the relationship with the immediate supervisor negatively mediates the influence of the discrepancy on the two job-relevant outcomes; however, no research supports the influences of the three independent variables on the two job-relevant outcomes mediated by the quality of the relationship with the immediate supervisor.

The purpose of this study is to examine the relationships among perceived and preferred coaching behaviors, job satisfaction, and adaptive work behaviors mediated by the quality of the relationship with the immediate supervisor.

Purpose of the Study

The purpose of this study is to investigate the relationships among the perceived and preferred coaching behaviors, job satisfaction, and adaptive work behaviors among employees in a South Korean organization with the quality of the relationship with their immediate supervisors

as a mediating variable. For this study, the three independent variables are perceived coaching behaviors, preferred coaching behaviors, and the discrepancy between them.

First, the study examines the relationship between perceived and preferred coaching behaviors, investigating the influences of the three independent variables on the quality of the relationship with the immediate supervisor. Next, this research explores the influences of the quality of the relationship with the immediate supervisor on the two job-relevant outcomes: job satisfaction and adaptive work behaviors. The influences of the three independent variables on the two job-relevant outcomes are analyzed with the quality of the relationship with the immediate supervisor as the mediating variable.

Research Questions

This paper addresses the following research questions:

1. What is the relationship between the perceived and preferred coaching behaviors?
2. What are the influences of the perceived and preferred coaching behaviors and the discrepancy between perceived and preferred coaching behaviors on the quality of the relationship with the immediate supervisor?
3. What are the influences of the quality of the relationship with the immediate supervisor on job satisfaction and adaptive work behaviors?
4. Does the quality of the relationship with the immediate supervisor mediate the influences of the perceived and preferred coaching behaviors and the discrepancy between perceived and preferred coaching behaviors on job satisfaction and adaptive work behaviors?

Definitions of Terms

The key terms used in this study are defined below.

Managerial Coaching

“Managerial coaching” is defined as the social process that occurs between a supervisor and a subordinate for the purpose of improving some aspect of the subordinate’s work behavior. A social process is the set of behaviors intended to improve the performance of a subordinate in the workplace with a supervisor (Jacobs, 2017; Stein, 2001); furthermore, it is limited to the relationship between a supervisor and a subordinate (Ellinger et al., 2008; Joo et al., 2012; Lawrence, 2017).

Perceived Coaching Behaviors

“Perceived coaching behaviors” is a term defined as the supervisory behaviors that subordinates perceive when their team leader coaches them. Other studies have referred to this concept as perceived, actual or received managerial coaching behaviors. This study has adopted the term “perceived coaching behaviors”.

Preferred Coaching Behaviors

“Preferred coaching behaviors” is a term that denotes supervisory behaviors that subordinates prefer when their team leader coaches them. In this study, the term is synonymous with managerial coaching behavior preference, preferred or expected managerial coaching behaviors, or the need for managerial coaching behaviors.

Discrepancy Between Perceived and Preferred Coaching Behaviors

In this study, the “discrepancy between perceived and preferred coaching behaviors” refers to the difference between the coaching behaviors subordinates perceive and those they

prefer. This variable is determined by the absolute difference scores obtained by subtracting the perceived coaching behaviors from the preferred coaching behaviors.

Quality of the Relationship with the Immediate Supervisor

The degree of mutual trust, respect, and obligation that the follower perceives in the supervisor-and-subordinate relationship as is referred to as “relationship quality” (Graen & Uhl-Bien, 1995). Of particular interest in this study are the perceptions of the subordinate. In this study, the immediate supervisor is the leader of a small-sized team responsible for coaching team members.

Job Satisfaction

“Job satisfaction” refers to the pleasurable or positive emotional state of an individual resulting from the appraisal of his or her current job or job experience (Locke, 1976; Vroom, 1964). The appraisal is based upon certain aspects of a job compared with one’s own values (Locke, 1969). When aspects of a job satisfy the values of an individual, the person has positive feelings and attitudes about the job (Vroom, 1964). In contrast, when the aspects of a job are distant from the person’s values, job dissatisfaction is expressed by the individual (Locke, 1969). In this study, job satisfaction measures general job satisfaction.

Adaptive Work Behaviors

“Adaptive work behaviors” is a term that denotes the job-relevant actions of a subordinate, demonstrated by responding to or anticipating changes in workplace conditions (Hui & Sue-Chan, 2018; Pousa & Mathieu, 2016). This concept has been called *adaptive performance* in other research studies. In this study, adaptive work behaviors are defined to differentiate them from the concept of performance and to emphasize the research context.

Significance of the Study

Managerial coaching is considered the most effective tool to improve employees' competency and performance in an organization (Ellinger et al., 2008; Lawrence, 2017). In addition, the managerial coaching process appears to enhance the reciprocal relationship between a supervisor and employee and the latter's satisfaction with work (Beattie et al., 2014; Kim & Kuo, 2015). Notably, managerial coaching is an understudied area in human resource development (HRD) (Beattie et al., 2014; Hagen, 2012). Thus, the associations among the perceived and preferred managerial coaching behaviors, job satisfaction, adaptive work behaviors, and the quality of the relationship with the immediate supervisor remain insufficiently investigated to date. In this context, the significance of the study is considered for researchers and practitioners as follows.

First, this study can reduce the research gap in HRD studies, and the results may provide a better understanding of coaching behaviors. Few researchers have examined the relationships between managerial coaching behaviors and individual characteristics (Hui & Sue-Chan, 2018; Hui et al., 2013; Hui et al., 2019; Kunst et al., 2018). This study offers the research community a more comprehensive understanding of managerial coaching behaviors. Specifically, the study informs researchers about the role of preference in managerial coaching, and the way it can work with perceived coaching and affect job satisfaction and adaptive work behaviors. The study will also facilitate the discussion and investigation of the relationship between preferences and the effectiveness of managerial coaching.

Second, this study employs adaptive work behaviors as a variable. Research has rarely investigated adaptive work behaviors in the context of managerial coaching (Hui & Sue-Chan, 2018; Pousa & Mathieu, 2016), although some researchers have stated that coaching behaviors

may affect adaptive work behaviors (Hui & Sue-Chan, 2018; Kluger & DeNisi, 1996; Matsuo, 2018), arguing that subordinates exhibit adaptability in their work because managerial coaching facilitates creative thinking or exploratory learning (Hui & Sue-Chan, 2018; Matsuo, 2018). Other have claimed that the quality of the relationship with a supervisor mediates the association between managerial coaching and adaptive work behaviors (Basu & Green, 1997), but further research has not confirmed these theoretical perspectives clearly. Hence, this study provides evidence that contributes to the discussion. Following this investigation, the discussion of the association between adaptive work behaviors and managerial coaching will be more specific and developed theoretically in HRD.

Third, the quality of the relationship with the immediate supervisor was examined as a mediator in this research. Managerial coaching is based upon a dyadic relationship between a supervisor and subordinate (Agarwal et al., 2009; Anderson, 2013). Although leader–member exchange (LMX) theory is frequently referred to as the theoretical framework used to explain coaching effectiveness, the quality of the dyadic relationship is rarely studied in managerial coaching (Pousa et al., 2017). Hence, this study, which empirically investigated the quality of the relationship with the immediate supervisor who serves as a coach, will help researchers understand its role in managerial coaching. Further, the results of this study can suggest future research directions, as well as offer a more rigorous study design to investigate the effectiveness of managerial coaching behaviors than what is available currently.

Fourth, the study can improve the practice of HRD. A major issue in managerial coaching practice is coaches' training (Har 2008; Moran, 2013), and to some extent, training practices have been based upon practitioners' experience or opinions (Allenbaugh, 1983; Ellinger et al., 2008; Orth et al., 1987; Peterson & Little, 2005). This study will help them develop more

sophisticated and effective managerial coaching training programs by investigating the efficacy of coaching behaviors thoroughly.

Fifth, HRD practitioners can consider the characteristics of subordinates. Little to no knowledge is available on subordinates who received managerial coaching despite their direct association with outcomes (Beattie et al., 2014; Hui et al., 2019). In this study the expectation is that HRD practitioners pay attention to and deliberate on the individual differences of the subordinates who receive managerial coaching. For example, the results of previous studies have shown that personality traits affect preferences for supervisory behaviors (Moss & Ngu, 2006; Parmer et al., 2013) and interaction with a supervisor (Nahrgang et al., 2009; Phillips & Bedeian, 1994), and those preferences affect job satisfaction as well (House, 1996; Yukl, 1971). By considering the personality traits of subordinates, practitioners can design and implement effective managerial coaching programs.

Sixth, managerial coaching may be employed as an intervention for cultivating a positive work climate. In fact, it has usually been considered an intervention by HRD practitioners for improving the job competencies or performance of employees (Beattie et al., 2014; Garvin et al., 2013; Sloan et al., 2017). This research employed job satisfaction and the quality of the relationship with the immediate supervisor who coaches as an outcome and mediator, respectively. These are considered the components of a positive work climate (Kim, 2014). HRD practitioners may think of managerial coaching as an intervention for organizational development besides performance management and competency development tools. To be specific, managerial coaching can be employed to enhance work motivation, team cohesion, employee retention, and conflict resolution (Beattie et al., 2014).

Limitations of the Study

The limitations of this study are as follows:

1. Generalization of the study results is limited to employees of a South Korean organization.
2. The instrument employed in this study limits the validity and reliability of the results.
3. The study results are limited to the perceptions and preferences of the employees of a South Korean organization.
4. The sample may have selection errors because not all employees of the organization were sampled.
5. The study relies on the nature of self-reporting methods.

CHAPTER 2

LITERATURE REVIEW

This chapter is divided into five sections. The first reviews the definition of human resource development (HRD) and the concept of workplace learning. The second defines managerial coaching and explores previous studies on managerial coaching behaviors and the relationship between perceived and preferred coaching behaviors. The third explains leader–member exchange (LMX) theory and the development of relationship quality in the role-making process. Then, the effects of managerial coaching on the quality of the relationship with the immediate supervisor are investigated. The fourth examines the two job-relevant outcomes—satisfaction and adaptive work behaviors—related to the quality of the relationship with the immediate supervisor. Finally, the chapter concludes with a proposed conceptual framework based upon the literature review.

Human Resource Development

This section defines human resource development (HRD) and workplace learning. The first part deals with how the identity of HRD has evolved as a discipline and profession. The second explores the two aspects of workplace learning—learning location and trainer–coach.

Definitions of Human Resource Development

Researchers have defined HRD as an applied field of study and practice in various ways (Jacobs, 2019). The body of knowledge comprises varied theoretical backgrounds, such as economics, psychology, system theory, organization theory, adult learning theory, and others (McLean, 1998; Swanson & Holton, 2001). The complexity of this body of knowledge has led to diverse perspectives on HRD and numerous definitions (Jacobs, 2019). Although no consensus

has been reached on the precise nature of HRD, various definitions have evolved with common interests, redefining this area (Han et al., 2017). Thus, HRD has its own identity, distinct from other fields of study. Table 1 summarizes representative definitions in the history of HRD.

Table 1

Definitions of Human Resource Development

Author	Definition
Harbison & Myers (1964)	HRD is “the process of increasing the knowledge, the skills, and the capacities of all the people in a society” (p. 2).
Nadler (1970)	HRD is “a series of organized activities conducted within a specific time and designed to produce behavioral change” (p. 3).
Nadler & Wiggs (1986)	HRD is “a comprehensive learning system for the release of the organization’s human potentials: a system that includes both vicarious (classroom, mediated, simulated) learning experiences and experiential, on-the-job experiences that are keyed to the organization’s reasons for survival” (p. 5).
Swanson (1987)	HRD is “a process of improving an organization’s performance through the capabilities of its personnel. HRD includes activities dealing with work design, aptitude, expertise, and motivation.”
Jacobs (1988)	“Human performance technology is the development of human performance systems and the management of the resulting systems, using a systems approach to achieve organizational and individual goals” (p. 5).
McLagan (1989)	HRD is “the integrated use of training and development, career development, and organizational development to improve individual and organizational effectiveness” (p. 7).
Watkins (1989)	HRD is “the field of study and practice responsible for the fostering of a long term, work-related learning capacity at the individual, group and organizational level of organizations. As such, it includes, but is not limited to, training, career development and organizational development” (p. 427).
Gilley & Eggland (1989)	HRD is “organized learning activities arranged within an organization to improve performance and/or personal growth for the purpose of improving the job, the individual and/or the organization” (p. 5).
Nadler & Nadler (1989)	HRD is “organized learning experiences provided for employees within a specified period of time to bring about the possibility of performance improvement and/or personal growth” (p. 6).
Smith (1990)	HRD is “the process of determining the optimum methods of developing and improving the human resources of an organization and the systematic improvement of the performance and productivity of employees” (p. 16).

Table 1 Continued

Author	Definition
Garavan (1991)	HRD is “the strategic management of training, development and of management/professional education interventions, so as to achieve the objectives of the organization” (p. 17).
Chalofsky (1992)	HRD is “the study and practice of increasing the learning capacity of individuals, groups, collectives and organizations through the development and application of learning-based interventions for the purpose of optimizing human and organizational growth and effectiveness” (p. 179).
Swanson (1995)	HRD is “a process of developing and unleashing human expertise through organization development and personnel training and development for the purpose of improving performance” (p. 208).
Werner & DeSimone (2006)	HRD can be defined as “a set of systematic and planned activities designed by an organization to provide its members with the opportunities to learn necessary skills to meet current and future job demands” (p. 4).
Jacobs (2006)	HRD is “the process of improving organizational performance and individual learning through the human accomplishments that result from employee development, organization development, and career development” (p. 21).
Swanson & Holton (2009)	HRD is “a process of developing and unleashing expertise for the purpose of improving organizational system, work process, team and individual performance” (p. 4).

First, until the mid-1980s, the realm of HRD remained limited to individual learning or employee development. To be specific, Harbison and Myers (1964) defined the goal of HRD as the knowledge and skill acquisition of people in a process. Other definitions of HRD present its purpose as behavioral changes initiated by organized activities or related to human potential development by learning systems (Nadler, 1970; Nadler & Wiggs, 1986). According to these definitions (Harbison & Myers, 1964; Nadler, 1970), HRD was described as a process, organized activities, or discipline. Thus, HRD is not a single activity like a technique or skill (Jacobs, 2014); it is a discipline as well as a profession.

Then, from the mid-1980s, researchers approached HRD as a system consisting of various elements that are interdependent and aim to achieve a goal (Jacobs, 2014). A process

operates the system, which functions by using input resources to organize various activities in order to achieve an intended goal. Based on the concept of a system, HRD has planned and organized the requisite resources and activities to achieve the intended outcomes (Swanson & Holton, 2001). This concept has been expressed in particular terms in the definitions of HRD, such as a process or a system (Jacobs, 20014; Swanson & Holton, 2001). After the system approach was employed (Jacobs, 1988; Nadler & Wiggs, 1986; Swanson, 1987), it remained a primary component for understanding HRD, and it has become the basis for dealing with HRD problems.

Organizational performance emerged as the main purpose of HRD, beginning in the late 1980s. Consistent with the improvement of organizational performance, interventions were diverse and distinct from learning activities according to the definitions. For example, Swanson (1987) identified organizational performance as the main goal of HRD, which included various interventions, such as work design, expertise, performance aids, motivation, and so on. Other definitions (Chalofsky, 1992; Garavan, 1991; Gilley & Eggland, 1989; Jacobs, 1988; Nadler & Nadler, 1989; Smith, 1990) indicated performance improvement as the main purpose. Career development and organization development were discussed with training and development as HRD interventions (McLagan 1989; Watkins 1989). As organizational performance became the main purpose, HRD expanded its scope.

Notably, the outputs of this evolution are still reflected in the current definitions. Werner and DeSimone's (2006) definition includes three concepts—system, employee development, and various interventions for performance—components also found in Swanson's (2009) recent definition and clearly describing HRD as a profession represented in the various interventions (Swanson & Holton, 2009). The system is the worldview of the profession, applied to understand

the realities and to organize behaviors for the goal (Chalofsky, 2014; Swanson & Holton, 2009). The roles of the profession are to facilitate performance, human potential, and learning (Chalofsky, 2014). Thus, the three components identify the current boundary of HRD research and practice.

In summary, the improvement of organizational performance and individual learning are the main purposes of HRD. A system approach is the primary means of the various interventions, such as employee development, career development, and organization development. For these reasons, this paper defines HRD as "... the process of improving organizational performance and individual learning through the human accomplishments that result from employee development, organization development, and career development" (Jacobs, 2006, p. 21).

Workplace Learning

Workplace learning reflects the goals of HRD, and the improvement of organizational performance and individual learning are its main goals of HRD (Jacobs, 2006; Swanson, 1995). As a component of employee development, workplace learning is defined as the process by which an individual obtains the competence necessary to meet current or future job requirements by engaging in various forms of learning (Jacobs & Park, 2009). Examples of learning forms include training programs, development courses, learning organization, or experiential learning activities (Jacobs & Park, 2009). Such learning allows employees to improve their job performance (Jacobs & Washington, 2003), which has become the foundation for organizational performance (Torraco & Swanson, 1995). Some studies have shown evidence that individual job performance has a positive relationship with organizational performance. For instance, managerial coaching has been found to improve sales in restaurants by facilitating the service

performance of servers (Latham et al., 2012). Thus, workplace learning represents the identity of HRD.

Learning Location

Workplace learning practices occur in various forms, ranging from classroom training to experiential learning activities (Poell, 2014). They can be categorized by learning location, such as off-the-job versus on-the-job (Jacobs & Park, 2009). Off-the-job learning is usually related to traditional instructor-led training, such as those provided by corporate universities, group-based classroom programs, and web-based training courses (Marsick & Watkins, 1990). Paid educational leave and professional attachment are also categorized as off-the-job learning (Oh et al., 2016). This aspect categorizes workplace learning forms by the learning place without regard to formality, that is, formal versus informal learning.

Off-the-job learning is used more effectively and efficiently when novices learn new job knowledge (Leberman et al., 2006) because the learning place is separated from the workplace and equipped with all the required learning resources (Poell, 2014). Consequently, such environments help employees concentrate on their learning activities. When group-based classroom learning occurs, human networks naturally form (Leberman et al., 2006); learning content is continually updated, and many people learn together at once (Radford et al., 2014). Off-the-job learning may also include nonrelevant job knowledge (McGraw, 1994). After off-the-job learning occurs, learning transfer issues usually result (Poell, 2014). Although off-the-job learning is efficient for the acquisition of job knowledge, it may not be effective for the job performance of employees.

By contrast, on-the-job learning is usually considered learning that occurs in the actual work setting and includes on-the-job training (OJT), coaching, communities of practice (CoP),

and action learning (Jacobs & Park, 2009). These kinds of learning may not be efficient in learning new job knowledge because of distracting conditions like noise and other work (Jacobs, 2003; Leberman et al., 2006); however, in comparison with off-the-job learning, on-the-job learning is more likely to be productive and effective (Poell, 2014). Employees can exhibit high learning transfer by acquiring contextual knowledge and cognitive strategies (Gorman et al., 2004; Jacobs, 2017; Jones et al., 2016; Stein, 2001). For job performance, on-the-job learning is considered necessary (Jacobs, 2017; Leberman et al., 2006; Stein, 2001); but it has been devalued among HRD stakeholders (Poell, 2014). In other words on-the-job learning is effective for improving job performance despite its low popularity among stakeholders.

Trainer–Coach

Learning happens without or with direct involvement of a trainer–coach, but without it, learning depends on the autonomy of employees (Poell, 2014). Organizational learning is usually operated by employees themselves in a form of self-directed learning (Park, 2008; Popova-Nowak & Cseh, 2015). A benefit of such learning practices is that it infuses workplaces with knowledge creation (Brown & Duguid, 1991). Significantly, the most important factor for learning is the motivation of employees (Brown & Duguid, 1991; Park, 2008), without which this kind of learning may not occur (Park, 2008). In fact, it may be most successful for highly motivated learners.

Learning with the direct involvement of a trainer–coach heavily relies on his or her teaching skills (Johnson & Leach, 2001). For effective learning, both subject matter knowledge and the teaching behaviors of a trainer–coach are considered important factors. If a trainer does not exhibit effective teaching behaviors, the learning of employees deteriorates (Ellinger et al., 2008). One empirical study (Dahling et al., 2016) indicated that visibly ineffective coaching

behaviors of a supervisor contributed to decreased job competencies and performance of subordinates. Despite the weakness of certain kinds of learning practices, a trainer–coach provides learners with some benefits. Employees can obtain contextual knowledge and cognitive strategies more efficiently and effectively from a coach than from on-the-job learning without the direct involvement of a trainer–coach (Jacobs, 2017; Jones et al., 2016; Poell, 2014). A trainer–coach also promotes learning motivation (Heslin et al., 2006). In other words, a trainer–coach plays a critical role in the learning outcomes of employees like knowledge acquisition and performance improvement.

Figure 1

Taxonomy of Workplace Learning

		Location of the Learning	
		Off the Job	On the Job
Trainer/Coach	Without the Direct Involvement of Trainer – Coach	Off the Job/ Without the Direct Involvement of Trainer • Examples: Paid educational leave, Professional attachment	On the Job/ Without the Direct Involvement of Trainer • Examples: Communities of practice (CoP), Action learning
	With the Direct Involvement of Trainer – Coach	Off the Job/ With the Direct Involvement of Trainer • Examples: Corporate universities, Group-based classroom programs, Web-based training courses	On the Job/ With the Direct Involvement of Trainer • Examples: On-the-job training (OJT), Managerial coaching, Mentoring

These two aspects of workplace learning are summarized in Figure 1 adopted and revised from Jacobs and Park's (2009) proposed conceptual framework. Based upon the taxonomy, this study referred to managerial coaching, which is part of on-the-job learning with direct involvement of a trainer-coach. This managerial coaching occurs near or at the actual work setting (Joo et al., 2012; Lawrence, 2017), and a supervisor becomes a coach (Ellinger et al., 2003). In summary, managerial coaching reflects the traits of both on-the-job learning and direct involvement of a trainer-coach.

Managerial Coaching

This section provides the definition of managerial coaching, research on managerial coaching behaviors, and information on the relationship between perceived and preferred coaching behaviors. The definition is demonstrated by three key components and presented by comparing it with similar concepts. Following the concept, dimensions, and paradigms of managerial coaching behaviors derived from previous studies, the relationship between perceived and preferred coaching behaviors is investigated.

“Managerial coaching” is defined as the social process that occurs between a supervisor and a subordinate for the purpose of improving some aspect of the subordinate's work behavior. Three traits unique to this definition can be understood by comparing them with similar concepts. Table 2 provides a comparison of the key components in managerial coaching with similar concepts.

First, the term “social process” in the definition above refers to the set of activities through which a subordinate acquires both theoretical and contextual knowledge (Liu &

Batt, 2010; Stein, 2001). Managerial coaching typically occurs with subordinates who do not perform as expected despite their job-related basic knowledge (Jacobs, 2003; Leberman et al., 2006). This kind of a performance issue is usually associated with the lack of know-how, that is, insufficient knowledge of the job and its context (Brown et al., 1989; Jacobs, 2017). During managerial coaching, a subordinate interacts with a supervisor, and naturally acquires know-how and knowledge about the job and context (Liu & Batt, 2010). From the perspective of situated learning, managerial coaching helps a subordinate increase metacognition, reasoning, decision makings, knowledge, and actions that are suitable for the workplace context (Brown et al., 1989; Jacobs, 2017; Stein, 2001). In other words, managerial coaching is the process used to help the subordinate understand the job and work context and to internalize how to perform in a particular workplace.

Managerial coaching is distinct from similar concepts, such as executive coaching, counseling, mentoring, and training. To be specific, executive coaching is the process of developing leadership by using both counseling and consulting approaches when a diagnosis shows that a higher-level manager lacks qualifications as a leader (Blackman et al., 2016; Joo, 2005). Counseling is a therapeutic treatment process (Ellinger et al., 2003), while mentoring involves activities to support an individual's career advancement (Ragins & Scandura, 1999). Training is associated primarily with the process of obtaining knowledge on the job with little or no thought given to situational understanding and cognitive strategies (Jacobs, 2017). These techniques may not involve the particular work context in which a subordinate performs.

Second, the terms “supervisor and subordinate” in the definition above indicate that managerial coaching occurs as part of management practices in the workplace (Ellinger et al., 2003; Joo et al., 2012) and has been traditionally discussed as an alternative performance management approach for a supervisor, replacing an employee appraisal approach (Allenbaugh, 1983; Evered & Selman, 1989; Graham et al., 1994; Orth et al., 1987; Wenzel, 2000). Recently designated as an important leadership characteristic (Ellinger et al., 2008; Hagen & Peterson, 2015), managerial coaching has been considered a way to exert the leadership influence on a subordinate (Graen & Uhl-Bien, 1991; House, 1996). The manager as a coach is one of the supervisor’s inherent roles, and the relationship between a supervisor and subordinate is unique in managerial coaching by comparison to similar concepts.

Similar concepts are not necessarily related to a supervisor and subordinate relationship in the same work group. For example, executive coaching occurs between a professional consultant and a higher-level manager (Ellinger & Kim, 2014), while counseling involves a traditional expert–client relationship (Joo, 2005). The relationship between more and less experienced persons is defined as mentoring (Ragins & Scandura, 1999); furthermore, training is defined as the relationship between a novice and trainer or expert (Jacobs, 2003). Thus, a trainer–coach in these similar concepts does not belong to the same work group with an employee, and the relationships are not directly associated with management or leadership influence by a supervisor.

Third, in the definition above the phrase “...improving some aspects of the subordinate’s work behaviors” indicates that the target of managerial coaching is a subordinate, who has some job knowledge but does not perform as expected (Jacobs,

2003). Thus, the purpose of managerial coaching is the improvement of employee performance achieved by improving competency (Beattie et al., 2014; Lawrence, 2017). This is the case because managerial coaching focuses more on the potentiality development of existing subordinates than the other performance management approaches, such as appraisal, planning, and work schedule management (Allenbaugh, 1983; Ellinger et al., 2008; Orth et al., 1987). That is, the primary interest in managerial coaching lies in the performance improvement of a subordinate by enhancing competency.

This trait differentiates managerial coaching from similar concepts. The purpose of executive coaching is the leadership development of a higher-level manager when the deficiencies as an executive of the person are diagnosed (Joo, 2005). These deficiencies include the lack of skills or personal crisis. Counseling focuses on therapeutic treatment for the individual who has a personal crisis or problem (Ellinger et al., 2003). The goal of mentoring aims at the career development of those who usually have no current performance problems but want to pursue career movement in the future (Ghosh, 2013; Ragins & Scandura, 1999). Training entails the acquisition of general job knowledge for performance purposes by novices who have no previous job experience (Jacobs, 2017). These related concepts are associated with the acquisition of general job knowledge by novices, the horizontal or vertical career movement of individuals, or psychological treatment for people experiencing personal crisis.

Table 2*Comparison of Key Components*

	Managerial Coaching	Executive Coaching	Mentoring	Counseling	Training
Definition	The social process that occurs between a supervisor and a subordinate for the purpose of improving some aspect of the subordinate's work behavior	The planned process of a one-on-one relationship between a professional coach and an executive or higher-level manager for assessing and developing leadership (Blackman et al., 2016)	The relationship between a person with advanced experience and a junior person for guiding, assisting, and supporting career development (Fowler & O'Gorman, 2005)	A wandering process for helping individuals who are in personal crisis or increasing their self-awareness and wellness by using psychological therapy knowledge (Joo, 2005)	"The planned process of developing competence in units of work by having an instructor when the employee cannot entirely perform the expected units of work" (Jacobs, 2003, pp. 28–29).
Purpose	Effective work-related performance and improving existing competency (Lawrence, 2017)	Leadership development (Blackman et al., 2016; Joo et al., 2012)	Support for career development activities of individuals (Ghosh, 2013; Ragins & Scandura, 1999)	Therapeutic treatment for a personal crisis to improve performance (Joo, 2005)	Effective work-related performance by learning entirely new job knowledge (Jacobs, 2003)
Main content	Domain-specific content knowledge related to work in a job situation: theoretical and contextual knowledge (Jacobs, 2017; Liu & Batt, 2010)	Leadership issues by assessment (Blackman et al., 2016; Joo, 2005)	All about the career advancement and self-image of professionals (Mullen, 1998)	Psychological issues that prevent effective performance (Ellinger et al., 2003; Minter & Thomas, 2000).	Domain-specific content knowledge related to work: theoretical knowledge (Jacobs, 2017)

Table 2 Continued

	Managerial Coaching	Executive Coaching	Mentoring	Counseling	Training
Target (Trainees)	Low- or middle-level employees who need to improve some part of their competency for effective performance (Lawrence, 2017)	Current or future executives or higher-level leaders who need to improve their leadership competencies for an organization (Joo, 2005)	Employees who show average performance and want an influential individual to provide mobility and support to their career (DeMik, 2007; Ragins & Scandura, 1999)	Employees who show poor performance because of personal crisis or psychological issue despite the potential to perform their task (Joo, 2005)	Employees lacking the experience needed to deal with complex tasks or tasks they cannot learn to perform on their own (Jacobs, 2003)
Trainers	Managers or supervisors in an organization (Beattie et al., 2014)	Professional coach in an organization or external consultant (Ellinger & Kim, 2014)	Experienced people who commit to providing career development and mobilities (Ragins & Scandura, 1999)	Superiors with expertise in counseling or a counselor (Ellinger et al., 2003; Joo, 2005)	Subject matter experts or people with teaching skills (Johnson & Leach, 2001)
Relationship	A one-to-one relationship: a supervisor and a subordinate (Beattie et al., 2014)	A one-to-one relationship: a consultant and a client (Joo, 2005)	A one-to-one or network relationship: a more and less experienced person (Higgins & Kram, 2001)	A one-to-one relationship: a traditional expert–client (Joo, 2005)	Various (i.e., one-to-one to one-to-many): a trainer (i.e., expert) and novice
The Role of Trainer	Active and passive (Jacobs & Park, 2009)	Active (Blackman et al., 2016): The coach needs to assess competency and set learning goals	Active and passive (Jacobs & Park, 2009)	Active: counselor facilitates self-awareness and recognizes danger signals (Joo, 2005)	Active (Jacobs & Park, 2009)

Table 2 Continued

	Managerial Coaching	Executive Coaching	Mentoring	Counseling	Training
Main interventions (Skills, Knowledge)	Listening, analysis, interview, questions, observation, giving feedback, communicating clear expectations, and creating a supportive environment (Ellinger et al., 2003)	A personality inventory, interviews, 360-degree feedback, action planning, and psychotherapy (Joo et al., 2012)	Challenging assignment, coaching, role modeling, visibility, counseling, sponsoring, protecting, parenting, motivation, and confirmation (Ghosh, 2013)	Listening, empathy, psychological knowledge to recognize danger signal (Joo, 2005; Joo et al., 2012)	Instruction, practice, and feedback (Jacobs, 2003)
Location	On the job (Jacobs & Park, 2009; Joo et al., 2012)	On the job and off the job (Joo et al., 2012)	On the job (Jacobs & Park, 2009)	Off the job	On the job and off the job (Jacobs & Park, 2009)
Degree of Planning	Planned and unplanned Managerial coaching can be both planned and unplanned (Ellinger & Kim 2014; Jacobs & Park, 2009). Process clarity is less in managerial coaching (Lawrence, 2017).	Planned Executive coaching is a synonym for formal coaching (Blackman et al., 2016). Executive coaching involves highly structured activities (Joo, 2005).	Planned and unplanned Formal mentoring and ad hoc mentoring (Jacobs & Park, 2009)	Unplanned Counseling is a wandering process used to solve a problem (Joo, 2005).	Planned Training is a planned process used to facilitate learning (Jacobs & Park, 2009).

Research on Managerial Coaching Behaviors

Researchers have studied effective coaching skills and behaviors in improving practice (Ellinger et al., 2008; Hagen, 2012). Many of these skills have been used as the content for training a supervisor or as the model for implementing managerial coaching (Allenbaugh, 1983; McLean et al., 2005; Orth et al., 1987; Peterson & Little, 2005), but some of them have been only abstractly described (Ellinger & Bostrom, 1999; Hagen, 2012) or suggested by personal experience (Allenbaugh, 1983; Evered & Selman, 1989). Researchers have cast doubt on the legitimacy of these skills (Ellinger et al., 2008; Peterson & Little, 2005). Thus, the skill-based approach remains ambiguous in terms of what supervisors do and how researchers observe the coaching practice.

Effective coaching behaviors have drawn attention of investigators as an alternative approach to study managerial coaching (Ellinger et al., 2003). Coaching behaviors refer to observable conduct in coaching practice (Hagen & Peterson, 2015). The behaviors are part of coaching skills (Ellinger et al., 2008) but involve traits different from those in the skill-based approach (Hagen & Peterson, 2015). Because managerial coaching behaviors are concretely defined as action-oriented acts (Ellinger et al., 2008), identified coaching behaviors provide a supervisor with the clear understanding of what a coach should do, that is, awareness of the coach role (Ellinger & Bostrom, 1999). In addition, the behaviors allow researchers to measure clearly the influences of managerial coaching on outcomes (David & Matu, 2013). Moreover, managerial coaching behaviors minimize the lack of clarity about performing the role of coach as a supervisor and studying the effectiveness of managerial coaching by comparing it with the skill-based approach.

Managerial Coaching Behaviors

Effective coaching behaviors have been studied from various perspectives, but no mainstream perspective on them has emerged (Lawrence, 2017). The differing perspectives have yielded a variety of coaching behaviors and diverse taxonomies. For instance, Talarico (2002) offered people, work, and work environment dimensions with seven behaviors. Noer et al. (2007) proposed three dimensions with 30 behaviors by appropriating functional activities in a leadership development program. L. Y. Zhang (2008) grouped four dimensions with 24 behaviors in terms of their functionalities. Gregory and Levy (2010) discussed four dimensions with 12 behaviors, focusing on the quality of a coaching relationship. Heslin et al. (2006) proposed three dimensions with 11 behaviors, including guidance, facilitation, and inspiration. Hui et al. (2013) summarized both guidance and facilitation dimensions with 10 behaviors. In other words, no consensus has been reached on essential behaviors and dimensions for managerial coaching.

Some have claimed that managerial coaching behaviors can be viewed in terms of two paradigms: guidance and empowerment (Batson & Yoder, 2012; Evered & Selman, 1989). The guidance paradigm focuses on role clarity from a supervisor, that is, expressing clear performance expectations, providing constructive feedback, soliciting feedback from a subordinate, suggesting performance improvement, working together, and providing clear answers (Ellinger & Bostrom, 1999; Heslin et al., 2006). The empowerment paradigm emphasizes the subordinate's ownership of work, in the form of questioning, supporting a new idea, encouraging a subordinate to develop his or her own solution, facilitating exploration and application of alternative solutions, and helping a subordinate in solving a problem (Ellinger & Bostrom, 1999; Hui et al., 2013). That is, managerial coaching behaviors may be generally

considered actions to improve some aspects of a subordinate's work behaviors in the social process by clarifying a role or supporting ownership of work.

Perceived and Preferred Coaching Behaviors

Perceived Coaching Behaviors

Perceived coaching behaviors are the observable coaching practices of supervisors (David & Matu, 2013). Managerial coaching behaviors reflect both the personal and situational characteristics of supervisors (Chelladurai, 1984). Personal characteristics include the supervisor's incremental beliefs about a subordinate, feedback orientation, belief in the effectiveness of coaching skills, occupational self-efficacy, and a transformational leadership style (Anderson, 2013; Heslin et al., 2006; M. C. C. Lee et al., 2019; Moran, 2013; Steelman & Wolfeld, 2018). When supervisors exhibited one of these characteristics, supervisory coaching behaviors were more frequently observed than the others.

Situational characteristics include coaching workshop or training, organization cultures and structures, organization support, and direct reporting relationship. According to previous studies (Heslin et al., 2006; Moran, 2013), supervisory coaching behaviors somewhat increase after a workshop on coaching. The frequency of managerial coaching was significantly observed in the stable organizational culture and structure (Baek, 2008) or direct reporting relationship (Anderson, 2013). According to a practitioner survey (Beattie et al., 2014), however, most organizations did not have the following characteristics: coaching training or workshop, stable organizational culture, and organizational support for coaching. That is, coaching behaviors seem to be shaped primarily by the personal characteristics of supervisors.

A study that directly investigated subordinates' perceptions of their supervisors' coaching frequency included a survey of employees across industries (Gilley et al., 2010); it showed that

41.3% of the respondents never or rarely experienced coaching from their supervisors, whereas 27% indicated that they usually or always received coaching. The results of this survey corresponded to those of another survey indicating that 20% of employees experienced managerial coaching from their supervisors (Beattie et al., 2014). Thus, few subordinates may regularly experience managerial coaching in the workplace.

Preferred Coaching Behaviors

Most studies on preference were conducted in terms of leadership behaviors. The leadership preference of a subordinate is influenced by individual and situational characteristics (Chelladurai, 1984). Individual characteristics include a belief in competencies, the need for independence, and achievement orientation (House & Mitchell, 1975; Vroom, 1959; Yukl, 1971). When these individual characteristics were strong, employees did not prefer task-oriented behaviors of a supervisor, such as setting a goal, giving feedback, and providing clear guidelines for each task (Vroom, 1959; Yukl, 1971). Task-oriented behaviors are identical to coaching behaviors for clarifying a role (Ellinger & Bostrom, 1999). In other words, if a subordinate has these individual characteristics, the person may not prefer particular managerial coaching behaviors.

Also, previous studies have mainly involved relationships among the Big Five personality traits and preferences for leadership behaviors (Moss & Ngu, 2006; Parmer et al., 2013). For example, extraverted employees preferred transformational leadership behaviors, whereas others with neuroticism preferred laissez-faire leadership behaviors (Moss & Ngu, 2006). The characteristics of transformational leadership correspond to the characteristics of the manager as a coach (Judge & Piccolo, 2004; M. C. C. Lee et al., 2019). Thus, an extraverted subordinate likely has the tendency to prefer managerial coaching behaviors.

Situational characteristics are occupational or organization positions, the importance of decision making, the favored decision-making tendency of a supervisor, task demands, and role ambiguity (House, 1996). These situational characteristics themselves have no clear influence on preferences (Dessler & Valenzi, 1977; Keller, 1989; Stinson & Johnson, 1975). The preferences of a subordinate with regard to coaching behaviors are determined mainly by trading off his or her belief in competencies and task orientation with aspects of the work environment like task demands and role ambiguity (Yukl, 1971). According to House (1996), if subordinates believe that their own competencies can control the given task demands and role ambiguity, they may not prefer supervisory coaching behaviors. The research claim (House, 1996) was confirmed by a preference survey study (Vecchio & Boatwright, 2002). Managerial coaching behaviors may not be preferred if a subordinate is not interested in the task in the workplace (Yukl, 1971). These study results have shown that the individual characteristics of a subordinate mainly affect preferences with regard to managerial coaching behaviors.

The Relationship Between Perceived and Preferred Coaching Behaviors.

The relationship between perception and preference can be suggested by synthesizing the discussions above. Perceived coaching behaviors are the supervisory coaching activities observed by a subordinate (David & Matu, 2013). The coaching activities are mainly affected by the personal characteristics of supervisors, such as personal beliefs or personalities (Heslin et al., 2006). Although some situational characteristics influence the coaching activities of supervisors, few organizations had these characteristics—coaching training, stable culture, and organization support (Beattie et al., 2014). Most subordinates rarely experienced coaching behaviors from their supervisors according to subordinates' perception surveys (Beattie et al., 2014; Gilley et al., 2010),

The coaching preference of a subordinate is generally shaped by individual differences, such as personality traits, beliefs, and task orientation (House, 1996; Parmer et al., 2013; Yukl, 1971). Although the situational characteristics seemed to be involved in preference, the involvement of these characteristics was unclear (Dessler & Valenzi, 1977; Keller, 1989; Stinson & Johnson, 1975). In light of previous studies, no finding has indicated that perception and preference of subordinates are influenced by the same characteristics. No clear evidence has shown that the preference and perception influence each other.

In other words, perceived coaching behaviors are highly associated with the personal characteristics of supervisors, whereas preferred coaching behaviors are related to individual differences among subordinates. Perception and preference may rarely influence each other.

Leader–Member Exchange

This section is divided into three parts. The first part deals with leader–member exchange (LMX) theory. The second part covers the development of relationship quality in the role-making process. The third part includes an examination of the association between managerial coaching behaviors and relationship quality by focusing on perceived and preferred coaching behaviors and the discrepancy between them.

Leader–Member Exchange Theory

Leader–member exchange (LMX) theory describes the importance of relationship quality in leadership. It is derived from vertical dyadic linkage (VDL) research (Burns & Otte, 1999), which showed that a supervisor with an in-group relationship with subordinates has a more effective leadership influence on the employees than a supervisor with an out-group relationship (Graen & Uhl-Bien, 1995). Because relationship quality is the source of leadership and a

supervisor does not have the same relationship quality with all subordinates, the supervisory behaviors do not evenly affect all members in the same work group (Dansereau et al., 1975). This finding differs from the average leadership scenario in which subordinates in the same work group have homogeneous perceptions and reactions (Day & Miscenko, 2015) and where a single best leadership behavior emerges regardless of the quality of the relationship with subordinates (Burns & Otte, 1999). Based on the findings of VDL research, the quality of the supervisor-and-subordinate relationship mediates the influence of supervisory behaviors on a subordinate.

Negotiating latitude is the indicator of the quality of a supervisor-and-subordinate relationship (Dansereau et al., 1975), a key concept in the role-making process for a subordinate (Burns & Otte, 1999). A supervisor regulates the degree of the negotiating latitude (Day & Miscenko, 2015), and when the relationship between a supervisor and a subordinate is based on trust, respect, and mutual obligation, a supervisor prefers a high degree of negotiating latitude (Graen & Uhl-Bien, 1991). In a high negotiating latitude, a supervisor willingly allows as well as supports a subordinate in defining his or her role, instead of assigning and clarifying the role (Burns & Otte, 1999). To be specific, a supervisor shares accurate information, feedback, and decision-making opportunities with a subordinate; pays attention to feelings of the follower; stands up for the ideas of the employee; backs up the group member in handling resources; and follows through on the role of the member (Dansereau et al., 1975). A subordinate easily understands the expectations of the supervisor, perceives his or her own performance problems, figures out how to develop his or her roles, and shows high performance (Graen & Uhl-Bien, 1995). A high degree of negotiating latitude is observed when a supervisor and a subordinate sufficiently satisfy the expectations and needs of each other in the workplace.

Development of Relationship Quality

In LMX theory relationship quality is assumed to proceed through the role-making process (Nahrgang & Seo, 2015). A role is defined as a set of behaviors or activities in the performance of designated responsibilities in a particular work context (Burns & Otte, 1999; Jacobs, 2019). The role-making process consists of three sequential phases: role-finding, role-making, and role-implementation (Graen & Uhl-Bien, 1991). Called stranger, acquaintance, and mature stages, they focus the relationship quality. The role-making process has no absolute timeline (Burns & Otte, 1999), and relationship building leads the process (Nahrgang & Seo, 2015). As the quality of a supervisor-and-subordinate relationship is developed, the role-making process proceeds (Graen & Uhl-Bien, 1995). This process is summarized in Figure 2, which was adopted from Graen and Uhl-Bien's (1991) life cycle of leadership making.

In the stranger stage the two parties are assumed to have had no previous interaction (Burns & Otte, 1999). This stage is also called a trial or sampling phase because a supervisor explores a proper role for a subordinate during work (Graen & Uhl-Bien, 1991; Nahrgang & Seo, 2015). The social exchanges between the two parties are based on a contract (Dansereau et al., 1975): A supervisor assigns a formal role in a job description, guides a subordinate, and helps with what the subordinate needs to perform the assigned role (Graen & Uhl-Bien, 1995); a subordinate carries out the obligations within the range of the job description (Burns & Otte, 1999). This relationship is described as low negotiating latitude because the supervisor controls most work activities of the subordinate. The supervisor gradually comes to understand the talent and performance of a subordinate through work (Graen & Uhl-Bien, 1991), but the subordinate perceives a supervisor as out-group because the relationship cannot be initiated or continued without a clear contract in this stage; furthermore, the two parties have no rapport.

Figure 2*Life Cycle of Leadership Making*

Stage:	Time →		
	Stranger →	Acquaintance →	Mature
A. Relationship-Building Phase	Role-Finding	Role-Making	Role Implementation
B. Type of Reciprocity	Cash & Carry	Mixed	In-Kind
C. Time Span of Reciprocity	Immediate	Some Delay	Indefinite
D. Leader-Member Exchange	Low	Medium	High
E. Incremental Influence	None	Limited	Almost Unlimited
F. Type of Leadership:			
1) Transactional	Behavioral Management	→	Reciprocal Favors
2) Transformational	Self-Interest	→	Team-Interest

Note. Adapted from Graen, G. B., & Uhl-Bien, M. (1991). The transformation of professionals into self-managing and partially self-designing contributors: Toward a theory of leadership-making. *Journal of Management Systems*, 3(3), 25–39.

In the acquaintance stage a supervisor tries to shape a role of a subordinate clearly (Graen & Uhl-Bien, 1991). In this stage the relationship quality is somewhat developed, and the partnership between both parties is being formed. The supervisor supports a subordinate beyond the formal obligations designated by an organization, and the subordinate grows interested in mutual interests as well as performing beyond the expectations of the job description (Graen & Uhl-Bien, 1995). Interactions between the two parties increase beyond what they were in the stranger stage (Graen & Uhl-Bien, 1991). Because it is a transition stage, the interactions

between two parties show characteristics of both the stranger and mature stages. A subordinate gradually considers a supervisor as in-group.

A supervisor in the mature stage focuses on how to make a subordinate show all competencies for the current role (Nahrgang & Seo, 2015). A supervisor helps a subordinate move beyond contractual obligations to extra responsibilities or high negotiating latitude (Burns & Otte, 1999). As a subordinate deeply commits to an organization and work (Epitropaki & Martin, 2005; Sluss & Thompson, 2012), the person achieves high performance (Burns & Otte, 1999). The social exchanges between the two parties are intense and the influence of one party on the other party is almost unlimited (Graen & Uhl-Bien, 1995). The two parties reciprocally support each other because they experience mutual trust, respect, and obligation from the exchange of behaviors, information, and emotions (Burns & Otte, 1999). Thus, a subordinate perceives a supervisor as in-group.

Managerial Coaching Behaviors and Relationship Quality

This part explores how relationship quality is associated with perceived and preferred coaching behaviors and the discrepancy between them by considering relevant studies.

Quality of the Relationship with the Immediate Supervisor and Perceived Coaching Behaviors

Two studies were conducted to investigate the relationship between managerial coaching and relationship quality. Sluss and Thompson (2012) examined the influence of the managerial coaching behaviors of supervisors on the perceptions of newcomers. When newcomers experienced frequent coaching activities from a supervisor, a high quality of relationship developed between the two parties (Nahrgang & Seo, 2015). Sluss and Thompson (2012) explained the perceptions of newcomers from the social exchange perspective. Managerial coaching activities help subordinates solve difficult problems in the workplace, and subordinates

begin to perceive a mutually beneficial relationship in which a supervisor supports them. The subordinates recognize the interdependent relationship in completing tasks as well as sharing a common destiny in the workplace (Scandura et al., 1986). Thus, because of the sense of mutuality and reciprocity, the quality of the relationship with a supervisor increases.

The other study explored and verified the positive relationship between perceived managerial coaching and employee perception of the manager's trustworthiness (Kim & Kuo, 2015). The construct of trustworthiness consists of three dimensions: competency, benevolence, and honesty (Colquitt et al., 2007). When employees perceive these three dimensions in their supervisors, they trust their supervisors (Lapierre, 2007). According to Kim and Kuo (2015), managerial coaching as professional helping activities allows subordinates to observe the expertise, benevolence, and honesty of their supervisors. This observation encourages social exchanges between a supervisor and subordinate, after which the development of relationship quality is expected (Lapierre, 2007). In other words, when subordinates perceive the coaching behaviors of supervisors, they likely experience high-quality of relationships with those supervisors.

Quality of the Relationship with the Immediate Supervisor and Preferred Coaching Behaviors

In previous studies researchers investigated the association between the Big Five personality traits and the quality of the relationship (Nahrgang et al., 2009; Phillips & Bedeian, 1994). Extraverted subordinates were positively associated with the quality of the LMX relationship (Phillips & Bedeian, 1994). A person with the personality trait of extraversion is described as active, assertive, lively, and sociable (Phillips & Bedeian, 1994). According to Nahrgang et al. (2009), these characteristics motivate subordinates to seek social interaction

opportunities; that is, extraverted subordinates tend to initiate and develop the quality of the relationship with the immediate supervisor.

According to leadership preference studies (Moss & Ngu, 2006; Parmer et al., 2013), extraverted subordinates preferred a transformational leader, that is, one who looked for a vision, became a role model, encouraged group goals, shared expectations, individualized supports, and provided intellectual stimulation (Podsakoff et al., 1990). The leadership components satisfied the orientations of the extraverted subordinates, including social interaction, cohesion, common interests, risk taking, and challenging goals (Moss & Ngu, 2006). In addition, the five leadership components are typical characteristics of managerial coaching (M. C. C. Lee et al., 2019), especially individualized supports, which describes the manager as a coach (Judge & Piccolo, 2004). Synthesizing these studies on extraversion shows that the managerial coaching preference of subordinates may be positively associated with the quality of the relationship with their supervisor who coaches.

Quality of the Relationship with the Immediate Supervisor and the Discrepancy Between Perceived and Preferred Coaching Behaviors

In two studies researchers investigated how the gap between expected and perceived leadership characteristics of subordinates have the influence on the development of LMX relationship quality (Engle & Lord 1997; Epitropaki & Martin, 2005). Engle and Lord (1997) found no relationship between the discrepancy and the LMX relationship, but in the other study Epitropaki and Martin (2005) found the congruence between expected and perceived characteristics to be positively associated with LMX relationship quality.

They drew their conclusions because subordinates interpret the actual leadership characteristics of their supervisors by comparing them with their own ideal image (Epitropaki &

Martin, 2005). If subordinates perceive the gap between the ideal and real leadership characteristics of their supervisors, they are unlikely to accept behaviors and decisions from the supervisors (Lord, 1985). The social exchange between the two parties results in a standoff (Graen & Uhl-Bien, 1995), and the relationship between the supervisor and the subordinate has no opportunity for development. In other words when subordinates consider the discrepancy between perceived and preferred coaching behaviors, they may not experience high-quality relationships with immediate supervisors who coach.

Job Satisfaction and Adaptive Work Behaviors

In this section the two job-relevant outcomes are examined: job satisfaction and adaptive work behaviors. First, the association between job satisfaction and the quality of the relationship with the immediate supervisor is investigated; and second, adaptive work behaviors are explored with respect to the quality of the relationship with the immediate supervisor.

Job Satisfaction

Job satisfaction is defined as "...a pleasurable or positive emotional state resulting from the appraisal of someone's job or job experience" (Locke, 1976, p. 1300). A job is the formally designated set of responsibilities a person needs to perform to achieve in a particular work context (Jacobs, 2019). Its various aspects cannot be considered a single entity (Locke, 1969). These aspects include pay, promotion, supervision, working conditions, and relationships (Hackman & Oldham, 1975). Researchers interested in the level of satisfaction rather than the sources have tended to measure general job satisfaction instead of each aspect (Macdonald & MacIntyre, 1997) because aspects of job satisfaction may differ from overall job satisfaction.

Satisfaction, which is defined as a set of emotional responses to a percept (Cammann et al., 1983; Kim et al., 2013), is decided by value judgment on a percept (Locke, 1969). An individual evaluates the percept based on his or her own values. The less discrepancy between the percept and value, the more an individual positively feels the percept (Yukl, 1971). Positive feelings, such as pleasure, are commonly called satisfaction (Locke, 1969); thus, job satisfaction is any kind of a positive emotion an employee feels about the current job.

Job satisfaction has been a popular outcome in research on leadership and management, including managerial coaching (Epitropaki & Martin, 2015; House, 1996; Lawrence, 2017), because a supervisor has the authority to organize the job conditions of employees in the line of work (Burns & Otte, 1999; Day & Misencenko, 2015). The positive influence of supervisory behaviors on the job satisfaction of employees has been empirically verified in previous studies by using the subordinate's perceptions and discrepancy models (Chelladurai, 1984; Ellinger et al., 2003; Kim, 2014; Yukl, 1971). Job satisfaction has also been frequently studied in LMX research, and has become a well-established outcome (Epitropaki & Martin, 2015). Two perspectives explain the influences of relationship quality on job satisfaction.

Job Satisfaction and the Quality of the Relationship with the Immediate Supervisor

The association between a high-quality relationship with the immediate supervisor and job satisfaction has been explained by a high degree of negotiating latitude (Dansereau et al., 1975), in which a subordinate has access to work resources and also manages work procedures (Burns & Otte, 1999). In addition, a supervisor willingly supports the decisions of a subordinate (Dansereau et al., 1975), but those in a low degree of negotiating latitude usually have no opportunities to control work resources and procedures (Volmer et al., 2011). A supervisor assigns tasks to them instead of providing work empowerment (Burns & Otte, 1999). Because

these working conditions are perceived as a privilege by the subordinate in a high degree of negotiating latitude, the person experiences job satisfaction (Volmer et al., 2011).

In addition, a high degree of negotiating latitude cultivates the conditions for experiencing the five core dimensions of job characteristics: skill variety, task significance, identity, autonomy, and feedback (Graen et al., 1982). In a high degree of negotiating latitude, a supervisor provides his or her subordinate with job information, feedback, decision-making opportunities, and work empowerment (Dansereau et al., 1975). This support from a supervisor allows a subordinate to experience the five core dimensions of job characteristics (Volmer et al., 2011). The experience makes the subordinate feel job enrichment (Hackman & Lawler, 1971), which satisfies higher-order needs in Maslow's hierarchy, such as feelings of growth (Loher et al., 1985). As this experience satisfies the growth need of a subordinate, he or she expresses job satisfaction (Graen et al., 1982; Hackman & Lawler, 1971; Parker & Ohly, 2008). Thus, a high degree of negotiating latitude plays a role in improving the job satisfaction of a subordinate.

Adaptive Work Behaviors

Adaptive work behaviors have received attention from researchers and practitioners because of the current dynamic and global workplace environment (Berdlow & Evers, 2014; Pulakos et al., 2000). These behaviors enable employees to adjust to new or ambiguous work situations (Hui & Sue-Chan, 2018; Jundt et al., 2015). Without adaptive work behaviors, some issues can be predicted in turbulent business environments, such as performance discrepancies or low performance achievement (Jundt et al., 2015); that is, adaptive work behaviors are considered one of the prerequisites of achieving job performance.

Adaptive work behaviors are an elusive concept in academia (Pulakos et al., 2000). The dimensions of adaptive work behaviors have not been sufficiently studied, and researchers

continue to debate whether or not the concept is multidimensional (J. L. Huang et al., 2014; Marques-Quinteiro et al., 2015; Pulakos et al., 2002). Because researchers have maintained various positions on the concept, suggesting a universal definition is difficult (Park & Park, 2019), but some consensus on adaptive work behaviors has emerged (J. L. Huang et al., 2014). These behaviors cover both proactive and reactive actions in response to circumstance change as well as association with performance management or improvement (Jundt et al., 2015). In this context, adaptive work behaviors are defined as the actions of a subordinate when the individual responds to or anticipates a change in job-relevant conditions for performing the job (Hui & Sue-Chan, 2018; Jundt et al., 2015). The behaviors are also considered the actions necessary to maintain or improve job performance under a change in work condition.

“Adaptive work behaviors” is a term synonymous with the following: adaptive performance, adaptive expertise, adaptability, agility, flexibility, or adaptation (Park & Park, 2019). The latter four are usually found in the literature for practitioners (Bersin et al., 2017a; Garvin et al., 2013), but researchers have preferred “adaptive performance” to the other terms (Park & Park, 2019). “Adaptive work behaviors” has been adopted for this study because “performance” is better suited for behavior that immediately achieves a goal of an organization (Jacobs, 2019).

Cumulatively, adaptive work behaviors of subordinates are considered one of the prospective outcomes in the research on supervisory behaviors (Jundt et al., 2015; Park & Park, 2019). Griffin and Hesketh (2003) discovered the importance of supervisory support in adaptive work behaviors. According to a meta-analysis (Chiaburu et al., 2013), a supervisor had a stronger effect on the adaptive work behaviors of subordinates than coworkers or organizational support. In this context, previous researchers have explored and proved the influence of managerial

coaching on adaptive work behaviors (Hui & Sue-Chan, 2018; Hui et al., 2019; Pousa & Mathieu, 2016). In LMX research adaptive work behaviors have been studied in the past 20 years (Matta & Van Dyne, 2015), and two theoretical perspectives have demonstrated how relationship quality influences adaptive work behaviors.

Adaptive Work Behaviors and the Quality of the Relationship with the Immediate Supervisor

In a high-quality relationship the two parties internalize common goals and values and show the same needs and interest (Graen & Uhl-Bien, 1995). These characteristics are associated with in-group identity (Zhao et al., 2014), which creates in subordinate's strong organizational commitment, work obligation, loyalty to and trust in a supervisor, psychological safety, risk-taking orientation, and self-efficacy in tasks (Basu & Green, 1997; L. Huang, 2016; J. Lee, 2008; Liao et al., 2010; Pan et al., 2012; Sweet et al., 2015; Tierney & Farmer, 2002). These cognitive and emotional states enable subordinates to initiate and persist in adaptive work behaviors to support their organizations even though the risk of failure may be present (Basu & Green, 1997). The psychological states act as motivation for the adaptive work behaviors of a subordinate (Matta & Van Dyne, 2015; Tierney et al., 1999).

Supervisory support is the other source of adaptive work behaviors (Basu & Green, 1997). When subordinates have high-quality relationships with their supervisors, they receive more supervisory support than before (Dansereau et al., 1975). In previous studies (Audenaert et al., 2019; Basu & Green, 1997), adaptive work behaviors of subordinates were improved by supervisory support, especially in goal setting and feedback. As supervisors willingly shared job knowledge with a subordinate, adaptive work behaviors were facilitated (Hassanzadeh, 2014). These results verified the meta-analysis study noted above (Chiaburu et al., 2013), stating that supervisory support encourages adaptive work behaviors. Basu and Green (1997) furthermore

interpreted the results to conclude that the supervisory support develops the job competencies of subordinates. Improved job competency leads to adaptive work behaviors; thus, in-group identity and supervisory support are the primary sources that elicit adaptive work behaviors of subordinates.

Conceptual Framework of the Study

This section synthesizes the reviewed information from previous research relevant to this study. As shown in Figure 3, the conceptual framework of this study illustrates the way the variables are assumed to be related to each other.

The first section provided the definition of HRD. As a discipline, HRD uses a system approach with various interventions for improving organizational performance and individual learning. Workplace learning in HRD was explored. As part of HRD, workplace learning facilitates job performance, which is the basis of organizational performance. Various learning forms also exist in the workplace. These can be categorized into two aspects: learning location and direct involvement of a trainer–coach. Managerial coaching is an aspect of on-the-job learning with the direct involvement of a trainer–coach.

The second section covered the concept of managerial coaching as a component of workplace learning. It involves on-the job learning with a coach. Because managerial coaching facilitates the social process of a subordinate, it improves his or her job performance. Managerial coaching behaviors were also investigated; these constitute observable conduct in coaching practice. The behaviors facilitate the social process of a subordinate in the workplace by clarifying a role or encouraging work ownership. There are various coaching behaviors and dimensions. Finally, perceived and preferred coaching behaviors were examined. As the

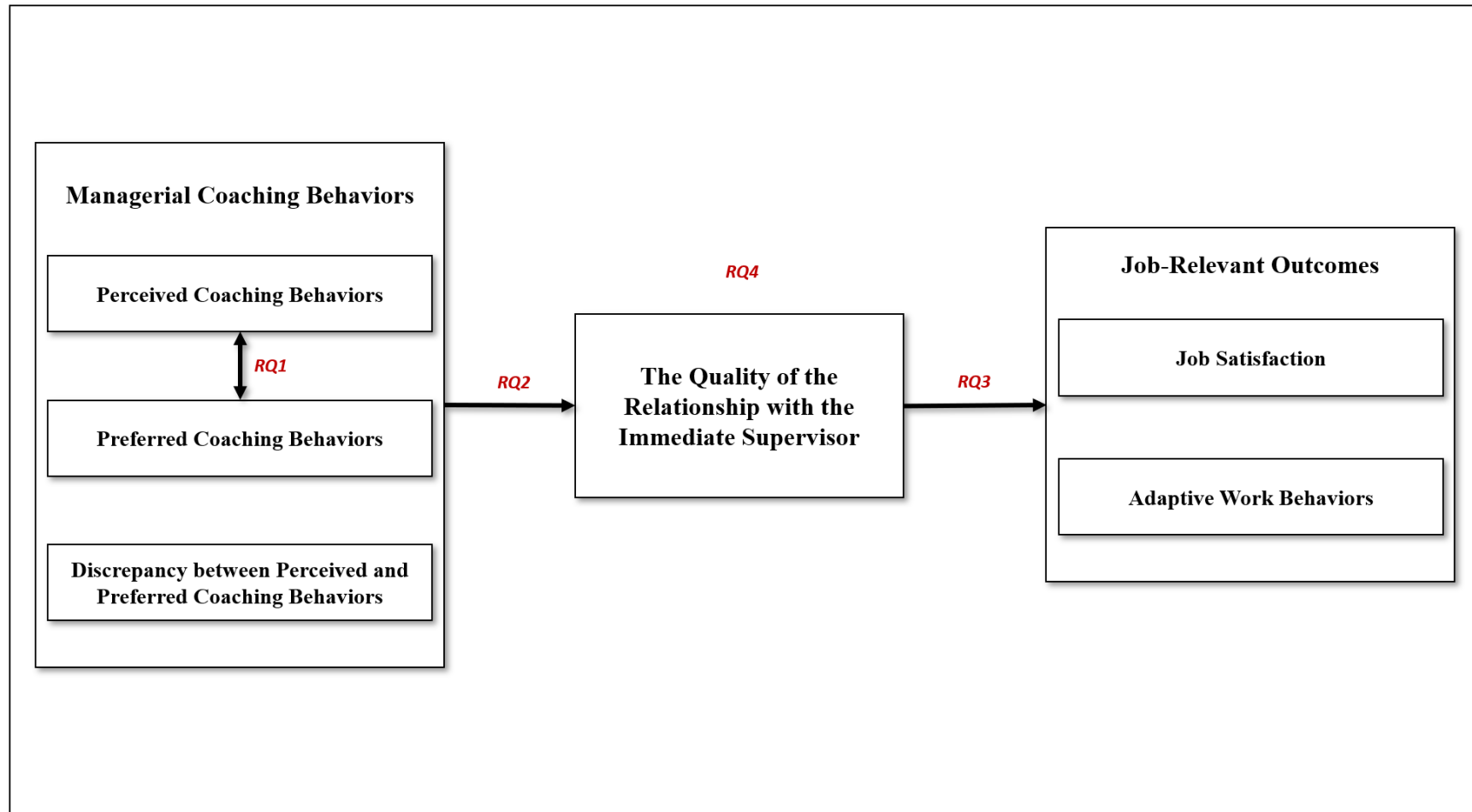
supervisory coaching activities observed by a subordinate, perceived coaching behaviors seem to be affected mainly by the personal characteristics of a supervisor. Preferred coaching behaviors are shaped mainly by the individual characteristics of a subordinate. There is little or no correlation between perceived and preferred coaching behaviors.

The third section covered leader–member exchange (LMX) theory, where the assumption is that the quality of a LMX relationship determines the influences of supervisory behaviors on a subordinate. The development of relationship quality proceeds through the role-making process. Negotiating latitude is an indicator of relationship quality in the process. When a subordinate perceives that managerial coaching is effective, the relationship quality is enhanced. Preferred coaching behaviors seem to be positively associated with the quality of the relationship with the immediate supervisor. When a subordinate perceives a gap between perceived and preferred coaching behaviors, the development of the relationship quality with the supervisor is hampered.

The fourth section presented a review of job-relevant outcomes: job satisfaction and adaptive work behaviors. Job satisfaction is the positive emotion associated with the current job. Because a high degree of negotiating latitude makes subordinates feel privilege and growth experience, they experience job satisfaction in a high-quality relationship with their supervisor. Adaptive work behaviors are the actions in response to the anticipated or real change in job conditions. In high-quality relationships with immediate supervisors, subordinates experience in-group identity and gain more supervisory support than those who do not experience such relationships. These are the sources of their adaptive work behaviors.

Figure 3

Conceptual Framework of the Study



CHAPTER 3

METHODOLOGY

The chapter includes seven sections on the methodology employed to answer the research questions of this study. They cover the research design that demonstrates the method, the research setting, which explains the context and the reason that the particular field was selected, respondents, including the criteria for sample selection, the definitions that provide information on the variables and measure for this study, the instrument design, which explains the instrument's content validity and its translation into Korean, data collection procedures, and data analysis with a description of the procedures for both data verification and analysis.

Research Design

A cross-sectional survey design was employed for this study. Surveys have proven reliable to examine perceptions, opinions, attitudes, and practices in a cross-sectional design (Creswell, 2002). The study investigated the effect of managerial coaching behaviors on job satisfaction and adaptive work behaviors mediated by the relationship with the immediate supervisor based upon the subordinates' perceptions and preferences.

The survey included five instruments. The first two were the perceived and preferred coaching behaviors. The data associated with these two instruments were processed to create another variable—the discrepancy between perceived and preferred coaching behaviors. The remaining three instruments were job satisfaction, adaptive work behaviors, and the quality of the relationship with the immediate supervisor. These five instruments were reviewed by a HRD researcher for content validity. Then, they were translated into Korean and verified by a bilingual

panel member. Next, the content validity was reviewed by Korean HRD practitioners. The online survey forms were used to collect data from a South Korean organization. The data were checked to detect common method bias and the violation of statistical assumptions, and reliability and validity tests were performed with all of data collected. For the discrepancy between perceived and preferred coaching behaviors, the constraints were tested to judge whether the processed data could produce reliable results, and then, the data were analyzed with the Pearson product-moment correlation and structural equation modeling (SEM).

Research Setting

The research setting was the South Korean private sector. The five criteria considered for this study were as follows:

1. Because the private sector is more dynamic than the public sector, training activities with a supervisor can be observed frequently.
2. Because companies have hierarchical structures, on-the-job learning with a supervisor takes place in these organizations.
3. General occupations relevant to office work were considered in the study. By including various occupations performed largely in an office, data for a cross-sectional study can be collected.
4. The samples included full-time employees in the workplace. Competency development activities usually take place with full-time employees rather than part-time or outsourced employees.
5. Samples and their supervisors must work together in the same place, and the supervisors may coach their subordinates heavily.

Respondents

Proper respondents for this study had the following characteristics:

1. Respondents were working currently in a major Korean automotive company.
2. Respondents were native Korean speakers.
3. Respondents were engaged in staff and management jobs except in a sales branch.
4. Respondents had the job titles of staff member or assistant manager.
5. Respondents had a direct reporting relationship with a team leader who is responsible for their development and performance.
6. Respondents had at least a bachelor's degree.
7. Respondents had worked in the current organization for at least one year.

Operational Definitions of Variables

Managerial Coaching Behaviors

Before further discussion, an operational definition of “supervisor” is necessary. Typically, a supervisor is a person who has authority over or control of another in an organization (Supervisor, 2021). The various ranks in an organization include staff member, assistant manager, manager, deputy general manager, and general manager. According to previous studies, managerial coaching occurs more commonly in a direct reporting relationship (Anderson, 2013). Thus, a supervisor was defined as a person who has a direct reporting relationship with a subordinate. In the research setting for this study, leaders of small teams who manage 20 or fewer members have a direct reporting relationship with their members; therefore, a supervisor was defined as a team leader who has 20 or fewer team members.

Three variables served as independent variables in this study: perceived coaching behaviors, preferred coaching behaviors, and the discrepancy between them. These variables can be described with respect to two dimensions: providing guidance and supporting work ownership. Their variables comprised eleven items, six of which were from Worthington and Roehlke (1979), and three of which were from Ellinger et al. (2003).

The 11 items were administrated to determine perceived and preferred coaching behaviors. The instrument for this study was revised to include six scales. The items for the perceived and preferred coaching behaviors are given in Table 3.

Providing Guidance

Providing guidance is the dimension that involves the respondent's the perception of or preference for the extent to which the current team leader guides his or her work with goals, task feedback, and solutions. This dimension was assessed with a 6-point Likert-type scale ranging from 1 (never) to 6 (very frequently).

Supporting Work Ownership

Supporting work ownership is the dimension that refers to the respondent's the perception of or preference for the extent to which the current team leader supports his or her work by developing individual working styles or solving a problem independently. This dimension was assessed with a 6-point Likert-type scale ranging from 1 (never) to 6 (very frequently).

Table 3*Variables of Perceived and Preferred Coaching Behaviors*

Dimension	Item for Perceived Coaching Behaviors	Item for Preferred Coaching Behaviors
Providing Guidance	1. My team leader gives me feedback about my work.	1. I prefer that my team leader gives me feedback about my work.
	2. My team leader uses examples from other situations to help me understand my work.	2. I prefer my team leader uses examples from other situations to help me understand my work.
	3. My team leader suggests new ways to do my work better.	3. I would prefer my team leader suggests new ways to do my work better.
	4. My team leader identifies my work goals jointly with me.	4. I prefer my team leader identifies my work goals jointly with me.
	5. My team leader provides periodic feedback about my progress in achieving my work goals.	5. I prefer my team leader provides periodic feedback about my progress in achieving my work goals.
	6. My team leader negotiates my work goals with me.	6. I prefer my team leader negotiates my work goals with me.
Supporting Work Ownership	7. My team leader helps me develop self-confidence in doing my work.	7. I prefer my team leader helps me develop self-confidence in doing my work.
	8. My team leader encourages me to find my own ways of doing my work.	8. I prefer my team leader encourages me to find my own ways of doing my work.
	9. My team leader encourages me to try out new ways to improve my work.	9. I prefer my team leader encourages me to try out new ways to improve my work.
	10. My team leader encourages me to consider new ways of thinking about my work.	10. I prefer my team leader encourages me to consider new ways of thinking about my work.
	11. My team leader removes obstacles that I might face in doing my work.	11. I prefer my team leader remove obstacles that I might face in doing my work.

Discrepancy

The variable of the discrepancy between perceived and preferred coaching behaviors consisted of the absolute difference scores obtained by subtracting each dimension for the perceived coaching behaviors from the preferred coaching behaviors. Absolute difference scores have been used generally to investigate the discrepancy between two variables (Edwards, 1994; Engle & Lord, 1997; Epitropaki & Martin, 2005). The calculation for the variable of discrepancy between perceived and preferred coaching behaviors appears in Table 4.

Table 4

Variables of the Discrepancy Between Perceived and Preferred Coaching Behaviors

Dimension	Calculation of Discrepancy
Providing Guidance	The absolute difference scores calculated by subtracting the providing guidance variable for the perceived coaching behaviors from the preferred coaching behaviors.
Supporting Work Ownership	The absolute difference scores calculated by subtracting the supporting work ownership variable for the perceived coaching behaviors from the preferred coaching behaviors.

Providing Guidance: Discrepancy

Providing guidance is the dimension that refers to the difference between the perception of, and preference for, the extent to which the current team leader guides the respondent's work with goals, task feedback, and solutions. This dimension can be calculated as absolute difference scores by subtracting the providing guidance dimension for the perceived coaching behaviors from the preferred coaching behaviors.

Supporting Work Ownership: Discrepancy

Supporting work ownership is the dimension that refers to the difference between the perception of, and preference for, the extent to which the current team leader supports the

respondent's work by developing his or her individual working styles or ability to solve a problem independently. This dimension can be calculated as absolute difference scores by subtracting the supporting work ownership dimension for the perceived coaching behaviors from the preferred coaching behaviors.

Quality of the Relationship with the Immediate Supervisor

This variable refers to a respondent's perception of the quality of his or her relationship with the team leader who serves as a coach in the workplace currently. The seven items were adapted from the LMX-7 questionnaire (Graen et al., 1982), and were developed originally to be measured on a 5-point Likert scale. For this study, the instrument was revised to include six scales and the variable was measured on a 6-point Likert-type scale that ranged from 1 (*rarely, not at all, none, strongly disagree, or extremely ineffective*) to 6 (*very often, fully, very high, strongly agree, or extremely effective*). The items for this variable are given in Table 5.

Table 5

Variable of the Quality of the Relationship with the Immediate Supervisor

Item
Do you know where you stand with your leader...[and] do you usually know how satisfied your leader is with what you do?
How well does your leader understand your job problems and needs?
How well does your leader recognize your potential?
Regardless of how much formal authority your leader has built into his or her position, what are the chances that your leader would use his or her power to help you solve problems in your work?
Again, regardless of the amount of formal authority your leader has, what are the chances that he or she would "bail you out" at his or her expense?
I have enough confidence in my leader that I would defend and justify his or her decision if he or she were not present to do so.
How would you characterize your working relationship with your leader?

Job-Relevant Outcomes

Job-relevant outcomes refer to a respondent's perceived job-relevant results related to organizational performance. The study measured job satisfaction and adaptive work behaviors as job-relevant outcomes. The items for the variables of the job-relevant outcomes are listed in Table 6.

Table 6

Variables of Job-Relevant Outcomes

Variable	Item
Job Satisfaction	Overall, I am satisfied with my job.
	In general, I like working here.
	I like doing the things I do at work.
	I am satisfied with the amount of personal growth and development I get in doing my job.
	I like the people I work with.
	My supervisor is unfair to me. (Reverse)
	I feel I am being paid a fair amount for the work I do.
	When I do a good job, I receive the recognition for it that I should receive.
	I feel secure about my job.
	I often feel that I do not know what is going on with the organization. (Reverse)
Adaptive Work Behaviors	I do not hesitate to go against established ideas and propose an innovative solution.
	I develop new tools and methods to resolve new problems.
	I analyze possible solutions and their ramifications quickly to select the most appropriate one.
	I easily reorganize my work to adapt to the new circumstances.
	I try to understand the viewpoints of my counterparts to improve my interaction with them.
	I willingly adapt my behavior whenever I need to in order to work well with others.
	I am on the lookout for the latest innovations in my job to improve the way I work.
	I look for every opportunity that enables me to improve my performance (training, group project, exchanges with colleagues, etc.).
	I keep my cool in situations where I am required to make many decisions.
	I look for solutions by having a calm discussion with colleagues.

Job Satisfaction

This variable refers to a respondent's positive feelings about his or her current job. For this study, two items were adapted from Cammann et al. (1983), and six items were derived from Spector (1985). The items also included two reverse-scored questions. Thus, 10 items were administered for job satisfaction. The variable was assessed on a 6-point Likert-type scale ranging from 1 (*disagree strongly*) to 6 (*agree strongly*).

Adaptive Work Behaviors

This variable refers to a respondent's perception of adaptive work behaviors in the current workplace. The 10 items were adapted from Charbonnier-Voirin and Roussel (2012), who originally developed 19 items measured on a 7-point Likert scale. In this study, the instrument was revised to include six scales, and the variable was measured on a 6-point Likert-type scale that ranged from 1 (*disagree strongly*) to 6 (*agree strongly*).

Instrument Design

The instrument for the study was developed based upon validity verification. To establish its content validity, it was reviewed by a panel of experts before the study began. In addition, one of the panel members translated the instrument from English to Korean and reviewed and revised it, because the respondents were native Korean speakers. Then, the survey was administered to the respondents.

Instrument Validity

Validity is the extent to which the instrument measures a concept or phenomenon accurately (Marczyk et al., 2005). For this study, a panel of HRD researcher and practitioners reviewed the instrument. Specifically, the HRD researcher reviewed the validity of the

instrument with respect to the research methodology, HRD theory, and managerial coaching, and it was revised based upon the feedback.

Subsequently, HRD practitioners in the South Korean organization reviewed the survey to assess its validity from their perspective. In addition, the practitioners identified any unclear expressions in the questionnaire. The final questionnaire reflected their feedback.

Translation of the Instrument to Korean

Because the respondents to this survey were native Korean speakers, the original English language survey was translated into Korean by the researcher, who is bilingual in Korean and English. The translated survey was verified by an expert who holds a Ph.D., has knowledge and experience of HRD, and is also fluent in both Korean and English. Before the panel member began, the purpose of the research and related information was explained, and the original English language survey was also provided. During the review, she revised inappropriate or unclear expressions in the Korean language survey. The final version of the Korean translation was reached through discussion and consensus between the reviewer and investigator.

Data Collection

Data collection occurred in three steps. First, the Human Subjects Review Committee (HSRC) at the University of Illinois approved the data collection plan for this study on March 19, 2021. Because some parts of the plan were changed, the HSRC gave Amendment Approval (Protocol number: 21758) on May 17, 2021. Based upon the approved plan, a mobile recruitment message and online survey webpage were developed and revised in Korean. The message described the study, the qualified respondents, and the online survey link. The webpage included information on the purpose of the study, the survey's length and procedure, the respondents'

rights and protection, the investigator's and the HSRC's contact information, a consent form, four filtering questions to check whether the respondent was qualified, a demographic survey, and the questionnaire. At the end of the webpage, those respondents who completed the survey fully could type in their mobile phone numbers to receive their compensation, a mobile coupon for a tall-sized Starbucks Americano coffee worth \$3.80.

Second, HRD practitioners in the Korean company were contacted on April 1, 2021 to recruit the research setting in the study. The second step began while the first step was in process. The HRD practitioners identified potential research setting and respondents, such as staff and assistant managers in headquarters, factories, and research centers, except in a sales branch. Further, they reviewed the Korean questionnaire to establish its content validity, as well as suggested changing the survey distribution strategy from e-mail to mobile message. Based upon their suggestion, a mobile coupon was added as the compensation for the respondents. Finally, they checked the mobile message and online survey webpage's structures and content, and the final version of the message and webpage reflected their feedback.

Next, the HRD practitioners distributed the mobile recruitment message to the potential respondents on May 19, 2021. The researcher checked the number of respondents once a week and sent the new respondents compensation. Based upon the researcher's request, the HRD practitioners sent a follow-up message to the potential respondents to encourage their participation in the survey on May 24, 30, and June 6, 2021. The online survey webpage was closed on June 15, 2021.

According to the webpage, 333 people attempted to respond to the survey in one month. The filtering questions excluded 97 people who were unqualified for the study. Therefore, 236 respondents completed the online survey fully. Among them, six filled out the survey unreliably,

such as marking one number in a row, or typing non-existing jobs or ranks. Two respondents did not meet the respondent criteria, such as a high-school diploma holder. In total, eight samples were removed, and 228 samples were retained for the data analysis. During data verification procedures, the statistical assumptions were checked. Eight samples were identified multivariate outliers and deleted additionally. Therefore, 220 samples were finalized for the data analysis in this study.

Data Analysis

The Statistical Package of the Social Sciences (SPSS) 27 and Analysis of Moment Structures (AMOS) 27 were used to analyze the collected data. The data verification procedure and results, as well as analysis procedures, are described in this section.

Data Verification Procedure and Results

Before analyzing the data, they were verified to ascertain whether meaningful results could be obtained without statistical errors. Accordingly, the data verification included the test of common methods bias, statistical assumptions, reliability test, confirmatory factor analysis (CFA), and a check on the four constraints.

Common Method Bias

The common method bias needed to be checked because this study used one method, a self-report survey. When the same measurement method is used to measure constructs, the shared variance among them may be attributable to the measurement method rather than the respondents' characteristics (Podsakoff et al., 2003). Such spurious variance inflates their intercorrelations (Kline, 2016), and Harman's single factor test can detect this bias (Podsakoff et al., 2003). If the total variance is 50% or more after all items are loaded on one general factor,

the data are likely to exhibit the bias. Harman's single factor test was performed using factor analysis, and the total variance was 32.36%, as shown in Appendix E, Table 25. Thus, no common method bias was detected in the data.

Statistical Assumptions

To conduct structural equation modeling (SEM), several statistical assumptions must be satisfied: A minimum sample size of 200; no missing data; metric scales; no multivariate outliers; no multicollinearity, and multivariate normality (Kline 2016; Ockey & Choi, 2015; Teo et al., 2013). The statistical assumptions were managed and checked in the data collection or verification. To be specific, the sample size, lack of missing data, and metric scales were addressed during the data collection: 228 samples were collected without any missing responses by using Likert-type scales. The data verification addressed no multivariate outliers, no multicollinearity, and multivariate normality as follows:

No Multivariate Outliers. Outliers, cases three standard deviations from the mean (Kline, 2016), need to be removed from the data. Because they likely affect the mean values as bias, no outliers are one of the assumptions that must be met to use SEM (Ockey & Choi, 2015). The indices of Mahalanobis distance squared, which are the distances between each sample and centroid, can be used to detect multivariate outliers, and the probability associated with a d-squared less than 0.001 is considered an influential outlier (Kline, 2016). As shown in Appendix F, Table 26, eight influential outliers that had a probability associated with a d-squared less than 0.001 were detected and removed from the data. Therefore, 220 samples were used in the SEM analysis.

Table 7*Statistics for Assumption and Reliability Tests*

	Coding	Cronbach's <i>Alpha</i>	Normality statistics		Collinearity statistics	
			Skewness	Kurtosis	Tolerance	VIF
Perceived Coaching Behaviors						
	CB1	.95	-.41	-.18	.32	3.16
	CB2		-.13	-.73	.35	2.87
	CB3		-.48	-.56	.34	2.93
	CB4		-.34	-.57	.33	3.03
	CB5		-.24	-.73	.32	3.14
	CB6		-.10	-.87	.31	3.28
	CB7		-.36	-.57	.34	2.96
	CB8		-.16	-.72	.25	4.05
	CB9		-.19	-.78	.30	3.39
	CB10		-.13	-.77	.29	3.47
	CB11		-.35	-.67	.42	2.41
Preferred Coaching Behaviors						
	PB1	.93	-.77	.99	.43	2.34
	PB2		-.74	.69	.55	1.83
	PB3		-.68	.61	.51	1.96
	PB4		-.59	.11	.33	3.02
	PB5		-.49	-.09	.41	2.44
	PB6		-.96	.88	.31	3.25
	PB7		-.83	.29	.29	3.48
	PB8		-.72	.55	.33	3.02
	PB9		-.64	.09	.35	2.89
	PB10		-.58	.19	.29	3.44
	PB11		-1.15	.66	.64	1.57
The Quality of the Relationship with the Immediate Supervisor						
	LMX1	.92	-.28	-.38	.46	2.18
	LMX2		-.27	-.75	.45	2.30
	LMX3		-.31	-.33	.53	1.93
	LMX4		-.54	-.44	.39	2.57
	LMX5		-.22	-.96	.37	2.67
	LMX6		-.28	-.47	.26	3.81
	LMX7		-.40	-.16	.26	3.79

Table 7 Continued

	Coding	Cronbach's <i>Alpha</i>	Normality statistics		Collinearity statistics	
			Skewness	Kurtosis	Tolerance	VIF
Job Satisfaction						
	JS1	.82	-.90	.48	.44	2.33
	JS2		-.77	.03	.40	2.48
	JS3		-.48	-.38	.37	2.74
	JS4		-.37	-.35	.50	2.01
	JS5		-.68	.60	.75	1.34
	JS6		-.87	.46	.80	1.25
	JS7		-.21	-.87	.66	1.51
	JS8		-.46	-.02	.54	1.90
	JS9		-.75	.71	.67	1.50
	JS10		-.01	-.68	.88	1.14
Adaptive Work Behaviors						
	AB1	.89	-.10	-.76	.39	2.59
	AB2		-.18	-.33	.45	2.22
	AB3		-.34	-.06	.50	1.99
	AB4		-.28	.19	.49	2.05
	AB5		-.57	.97	.50	1.97
	AB6		-.67	.51	.70	1.42
	AB7		-.11	-.40	.51	1.95
	AB8		-.50	.02	.59	1.69
	AB9		-.31	.01	.65	1.57
	AB10		-.37	-.01	.60	1.67

Note. *CB*=Perceived coaching behaviors; *PB*=Preferred coaching behaviors; *LMX*=The quality of the relationship with the immediate supervisor; *JS*=Job satisfaction; *AB*=Adaptive work behaviors; *VIF*= Variable inflation factor

No Multicollinearity. No multicollinearity is the other assumption of SEM analysis, and Tolerance and the Variable Inflation Factor (VIF) are used to detect multicollinearity among observed variables. When the coefficient of VIF is 10, there is a serious multicollinearity problem (Kline, 2016). A coefficient range between 5 and 10 indicates that there is a strong

multicollinearity problem with the data. If the coefficient of VIF is 4 or more and Tolerance is .2 or less, there is a slight multicollinearity problem (Hair et al., 2010). A linear regression was performed to calculate the Tolerance and VIF for each item as an independent variable. Table 7 shows that although VIF was 4.05 in the coding CB8, Tolerance was .25. Hence, no multicollinearity problem was detected among the items.

Further, a strong correlation between latent variables may indicate a serious multicollinearity problem (Kline, 2016). When the absolute value of a correlation coefficient is above .90, a multicollinearity problem likely exists in the statistical analysis (Hair et al., 1998). Further, in SEM, even a correlation greater than .85 may indicate a multicollinearity problem (Teo et al., 2013). As Table 8 illustrates, the correlation coefficients among the latent variables were between .12 and .83. Thus, no evidence of a multicollinearity problem was detected.

Table 8

Correlation Matrix of Latent Variables

	CB	PB	LMX	JS	AB
CB	1				
PB	.40**	1			
LMX	.83**	.27**	1		
JS	.50**	.12	.56**	1	
AB	.39**	.40**	.35**	.43**	1

Note. *CB*=Perceived coaching behaviors; *PB*=Preferred coaching behaviors; *LMX*=The quality of the relationship with the immediate supervisor; *JS*=Job satisfaction; *AB*=Adaptive work behaviors.

** $p < .001$, * $p < .005$

Multivariate Normality. Multivariate normality is another assumption, and there is no direct test for it (Kline, 2016). However, when data have multivariate normality, each variable shows univariate normality, each pair of variables exhibits bivariate normality, and the bivariate normality has a linear trend (Ockey & Choi, 2015). Therefore, checks of skewness and kurtosis, the methods to test for univariate normality, are recommended to detect whether the multivariate distribution is normal (Kline, 2016). If the absolute value of skewness is less than 3 and kurtosis is less than 10, it presents no serious problem for SEM (Ockey & Choi, 2015). Generally, an absolute value of skewness less than 2 and kurtosis less than 7 is considered to reflect a normal distribution (Hair et al., 2010). The skewness and kurtosis were examined, and Table 7 shows that the absolute values of the skewness and kurtosis were between .008 and 1.15, respectively. Thus, the assumption of multivariate normality was not violated.

Reliability Test

Cronbach's alpha, the measure of instrument reliability preferred most, measures internal consistency, which is the degree to which the items on a scale measure the same construct (Warner, 2008). The Cronbach's alpha coefficient ranges from 0 to 1 and higher coefficients indicate greater internal consistency. To be specific, values from 0 to .69 are usually considered to indicate poor internal consistency; between .70 and .79, fair consistency, and above .80, good consistency. A Reliability Analysis was performed, and Table 7 shows that the Cronbach's alpha statistics ranged from .82 to .95. Hence, the items for each construct demonstrated good internal consistency.

Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) is the first step in the two-step approach of SEM to validate the constructs (Teo et al., 2013). It verifies the measurement model, such as whether the

variables observed reflect a latent variable properly (DiStefano & Hess, 2005). Based upon the measurement model, the results of the second step, such as a structural model, can be justified (Teo et al., 2013).

First, exploratory factor analysis (EFA) may identify the relationships among possible latent and observed variables for CFA (Schumacker & Lomax, 2004). This was performed with the maximum likelihood as the extraction method and the Oblimin with Kaiser normalization as the rotation method. Appendix Table 27 shows that the EFA Pattern Matrix included the five constructs with 29 items. The perceived and preferred coaching behaviors were one-dimensional constructs. This differed from the expectation that they are two-dimensional constructs. Accordingly, eight items for the perceived and preferred coaching behaviors were dropped from the instruments. In the instruments for job satisfaction and adaptive work behaviors, five items were eliminated respectively, and two items were eliminated from the quality of the relationship with the immediate supervisor.

Next, the five constructs with 29 indicators were subjected to CFA, which showed that all five were uncorrelated. AMOS was used to analyze the measurement model. The model fit and convergent and discriminant validity must be reviewed to accept the CFA result.

Table 9 summarizes the criteria for the model fit indices. For a good model fit, the p value must be greater than .05, the Chi-squared (χ^2) near 0, the ratio of Chi-squared to the degrees of freedom (CMIN/DF) greater than 1 and less than 3, the comparative fit index (CFI) greater than .90 and near 1, the goodness of fit index (GFI) greater than .90, although greater than .80 is acceptable, the Tucker-Lewis index (TLI) greater than .90, the standardized root mean squared residual (SRMR) less than .08, and root mean squared error of approximation (RMSEA) less than .06 (Greenspoon & Saklofske, 1998; Kline, 1998; Fan et al., 2016; Schumacker &

Lomax, 2004). However, the p value, Chi-squared (χ^2), and GFI may not be considered seriously to assess a model's fit because they are vulnerable to sample size (Fan et al., 2016).

Table 9

The Criteria for Model Fit Indices

Model Fit Indices	Good Fit	Consideration
Chi-square (χ^2)	Close to 0	Vulnerable to sample size
p value	Non-significant ($p > .05$)	Vulnerable to sample size
CMIN/DF	Bigger than 1 and less than 3	
CFI	Larger than .90	
GFI	Larger than .90	Vulnerable to sample size Above .80 is acceptable
TLI	Larger than .90	
SRMR	Less than .08	
RMSEA	Less than .06	

The model fit indices were assessed and yielded CFI = .94, GFI = .84, TLI=.94, SRMR = .05, RMSEA = .06, $\chi^2 = 614.49$, $df = 365$, $p = .00$, CMIN/DF = 1.68. Except for the p value and GFI, most indices indicated a good model fit.

Convergent and discriminant validity can be tested by investigating the values of convergent reliability (CR) and average variance extracted (AVE). When the CR values are greater than .7 and the AVE values are greater than .5, convergent validity is confirmed (Fornell & Larcker, 1981). To confirm discriminant validity, each construct's AVE value should be larger than the squared correlation coefficient between the construct and the other construct (Fornell & Larcker, 1981). The CFA results were reviewed based upon these criteria. The two constructs,

perceived coaching behaviors and the relationship quality with the immediate supervisor failed to demonstrate discriminant validity, although the lowest value for the AVE and CR among the constructs was .58 and .87, respectively.

The absence of discriminant validity can be detected and corrected if the same construct is not referred to by different names (Kline, 2016). The literature (Farrell, 2010, Kline, 2016, Rönkkö & Cho, 2020) suggests commonly that the modification indices can be used to detect the correlated items between the two constructs. After removing the offending items, the problem of discriminant validity may be solved (Farrell, 2010). If the discriminant validity still cannot be confirmed, they need to be merged into one construct (Rönkkö & Cho, 2020).

Table 10

The Pairs of the Items which have Correlated Error Terms

Pair	Coding	Item
Pair1	CB3	<i>My team leader suggests new ways to do my work better.</i>
	LMX4	<i>Regardless of how much formal authority your leader has built into his or her position, what are the chances that your leader would use his or her power to help you solve problems in your work?</i>
Pair2	CB5	<i>My team leader provides periodic feedback about my progress in achieving my work goals.</i>
	LMX1	<i>Do you know where you stand with your leader...[and] do you usually know how satisfied your leader is with what you do?</i>
Pair3	CB10	<i>My team leader encourages me to consider new ways of thinking about my work.</i>
	LMX3	<i>How well does your leader recognize your potential?</i>

Note. CB=Perceived coaching behaviors; LMX=The quality of the relationship with the immediate supervisor.

The modification indices showed three pairs of correlated error terms between the two constructs in Table 10. These were considered wording issues in the instrument and the respondents may not have differentiated them (Rönkkö & Cho, 2020).

To be specific, the Korean respondents likely assumed the items in each pair were the same question, such as helping you solve a problem, satisfying your performance, and understanding your potential. Therefore, the three items were removed from the quality of the relationship with the immediate supervisor, such that a total of 26 items remained.

The convergent and discriminant validity were re-tested with the 26 items. In Appendix H, Figure 6 depicts the final measurement model. As shown in Table 11, the AVE values ranged between .58 and .76, and the CR values ranged between .86 and .94.

Table 11

The Results of Measurement Model

	Coding	Cronbach's <i>Alpha</i>	Standardized Loading	<i>AVE</i>	<i>CR</i>
Perceived Coaching Behaviors					
	CB1		0.83		
	CB2		0.84		
	CB3		0.81		
	CB4	.93	0.83	.68	.94
	CB5		0.84		
	CB6		0.85		
	CB10		0.76		
Preferred Coaching Behaviors					
	PB4		0.79		
	PB5		0.75		
	PB6		0.86		
	PB7	.91	0.85	.60	.91
	PB8		0.82		
	PB10		0.79		
	PB11		0.55		

Table 11 Continued

	Coding	Cronbach's <i>Alpha</i>	Standardized Loading	<i>AVE</i>	<i>CR</i>
The Quality of Relationship with the Immediate Supervisor					
	LMX5	.86	0.82	.76	.86
	LMX6		0.92		
Job Satisfaction					
	JS1	.87	0.81	.59	.88
	JS2		0.82		
	JS3		0.83		
	JS4		0.78		
	JS9		0.58		
Adaptive Work Behaviors					
	AB1	.87	0.83	.58	.87
	AB2		0.88		
	AB3		0.66		
	AB4		0.73		
	AB7		0.69		

Note. *CB*=Perceived coaching behaviors; *PB*=Preferred coaching behaviors; *LMX*=The quality of the relationship with the immediate supervisor; *JS*=Job satisfaction; *AB*=Adaptive work behaviors; *CR*= Constituent reliability; *AVE*= Average variance extracted.

Table 12 presents the discriminant validity. Each construct's *AVE* value was larger than the squared correlation coefficient between the construct and the other construct. Thus, convergent and discriminant validity were established. The indices indicated a good model fit ($CFI = .95$, $GFI = .86$, $TLI = .94$, $SRMR = .049$, $RMSEA = .05$, $\chi^2 = 475.31$, $df = 288$, $p = .00$, $CMIN/DF = 1.65$), although the p value and GFI were subject to the sample size. Thus, the final measurement model was confirmed with the five constructs and 26 items for this study.

Table 12*Discriminant Validity: Correlation Matrix and AVE Statistics*

	CB	PB	LMX	JS	AB	AVE
CB	1					0.68
PB	.16 (.34)	1				0.60
LMX	.64 (.80)	.04 (.20)	1			0.76
JS	.22 (.47)	.01 (.10)	.21 (.46)	1		0.59
AB	.08 (.28)	.07 (.27)	.07 (.26)	.18 (.42)	1	0.58

Note. *CB*=Perceived coaching behaviors; *PB*=Preferred coaching behaviors; *LMX*=The quality of the relationship with the immediate supervisor; *JS*=Job satisfaction; *AB*=Adaptive work behaviors; *AVE*= Average variance extracted.

The Four Constraints

The four constraints for the absolute difference scores between perceived and preferred coaching behaviors needed to be checked following Edwards' (1994) recommendations, because the difference scores may be difficult to interpret, have reliability issues, and a confounding effect on components (Epitropaki & Martin, 2005). By testing the four constraints, the researcher can predict whether the absolute difference scores between perceived and preferred coaching can be obtained without statistical errors (Engle & Lord, 1997). When these four constraints are satisfied, the significance of the absolute difference scores' effect on a variable is reliable. The four constraints can be assessed with a multiple regression analysis, which tests the effects of component variables on the mediator and outcomes (Edwards, 1994).

Before the analysis, a dummy variable, W , needs to be created. When there are more or the same number of preferred than perceived coaching behaviors, W is 0. In the other case, W is 1 (Engle & Lord, 1997). Based upon this condition, the four constraints are as follows (Edwards, 1994, p. 63):

1. The regression model has significant coefficients in the preferred coaching behaviors, perceived coaching behaviors, preferred coaching behaviors $\times W$, and perceived coaching behaviors $\times W$, but not W .
2. Coefficients in the preferred and perceived coaching behaviors are opposite in sign and not significantly different in absolute magnitude.
3. Coefficients in the preferred coaching behaviors $\times W$ and the perceived coaching behaviors $\times W$ are opposite in sign and not significantly different in absolute magnitude.
4. The coefficient in the preferred coaching behaviors does not differ significantly from twice the negative of the coefficient in the preferred coaching behaviors $\times W$.
Further, the coefficient in the perceived coaching behaviors does not differ significantly from twice the negative of the coefficient in the perceived coaching behaviors $\times W$.

In this study, the means of the two components' variables, perceived and preferred coaching behaviors, were calculated based upon the CFA results. The two means were divided by two because midpoint scales can preserve the ability to interpret the data analysis (Edwards, 1994). Thereafter, the dummy variable, W , and other components were created. Multiple regression analyses were performed with the three dependent variables: the quality of the relationship with the immediate supervisor; job satisfaction, and adaptive work behaviors.

Table 13 shows the results of the multiple regression analyses. The four constraints were not satisfied in all three analyses. Thus, it was assumed that the absolute difference scores as an independent variable may have insignificant or unreliable associations with the quality of the relationship with the immediate supervisor, job satisfaction, or adaptive work behaviors in the SEM analysis.

Table 13

Results of Regression Analyses Testing the Effects of Preferred-Perceived Coaching Behaviors Difference on Component Variables

Predictors	The Quality of the Relationship with the Immediate Supervisor	Job Satisfaction	Adaptive Work Behaviors
Perceived Coaching Behaviors	.81**	.46**	.11
Preferred Coaching Behaviors	-.16*	-.09	.31**
<i>W</i>	-.15	-.02	-.15
Perceived Coaching Behaviors × <i>W</i>	-.67	-.43	.73
Preferred Coaching Behaviors × <i>W</i>	.66	.44	-.37
<i>R</i> ²	.54	.20	.16
<i>F</i>	50.83	10.44	8.06
<i>Adjusted R</i> ²	.53	.18	.14

Note. *W*= A dummy variable (If Preferred coaching behaviors >= Perceived coaching behaviors, *W* = 0; if Preferred coaching behaviors < Perceived coaching behaviors, *W* = 1).

**p* < .05. ** *p* < .001.

Data Analysis Procedure

First, descriptive statistics were employed to analyze the data on the respondents' demographic characteristics, which consisted of gender, age, education, job, team size, rank, and job tenure. These demographic characteristics were presented as frequencies and percentages, and the responses to the items were calculated as means, standard deviations, and the range. Second, to examine the research questions, the data were analyzed with the Pearson product-moment correlation and SEM. Research Question 1 was answered with the Pearson correlation, the most popular statistical technique to explore the strength of the linear association between two independent variables that are measured on either an interval or ratio scale (Gravetter & Wallnau, 2004). The strength and direction of the correlation coefficient, r , ranges from -1 to 1. When the absolute correlation coefficient between two variables is greater than 0.7, they are highly linearly correlated. In addition, if the two independent variables have a high linear correlation, most of the variance in the discrepancy between the two variables is likely caused by errors (Riemer & Chelladurai, 1995).

SEM analysis, which examined the relationships in the conceptual framework, was used to answer Research Questions 2, 3, and 4. SEM is employed to test a set of relations, such as multiple equations, but other techniques describe relationships in a single equation. It explores the structural relationships among observed and latent variables (Warner, 2008). In addition, SEM investigates the relationships among latent variables (Warner, 2008), and estimates the indirect or mediating effect better than other techniques by using the covariance between the two variables.

To perform SEM, the relationships among three models must be considered (Warner, 2008): the structural equation model; measurement model, and structural model. The structural

equation model describes the relationships of all variables as the conceptual framework for a study, and consists of measurement and structural models. The measurement model draws the relationships among each latent variable and its observed variables. The structural model explains the relationship between exogenous and endogenous variables, which an investigator predicts in a hypothesis or research question. In this study, based upon the measurement model, which was confirmed in CFA, the relationships among the variables were investigated with the structural model.

The research questions posed were analyzed as follows. The data analysis strategy for each research question is summarized with its rationale in Table 14.

Research Question 1: What is the relationship between the perceived and preferred coaching behaviors? This question was answered with the Pearson correlation, which investigated the degree of association between the two types of coaching behaviors. The covariance between perceived and preferred coaching behaviors was calculated. Their relationship is measured with the correlation coefficient, r , between the two. Less than 0.5 or greater than -0.5 is considered to indicate no strong association between two variables (Hemphill, 2003).

Research Question 2: What are the influences of the perceived and preferred coaching behaviors and the discrepancy between perceived and preferred managerial coaching behaviors on the quality of the relationship with the immediate supervisor? This question, which was answered by analyzing the structural model, was designed to investigate the statistical significance of the parameter estimates. Specifically, the parameter estimates are associated with the path between perceived coaching behavior and the quality of the relationship with the immediate supervisor, the path between preferred coaching behavior and the quality of the

relationship, and the path between the discrepancy between perceived and preferred managerial coaching behaviors and the quality of the relationship. The statistical significance of each path is determined by 1.96, the critical ratio (CR) value.

Then, the parameter estimates' directions are explored—negative or positive. To judge whether they are within a reasonable range of magnitude, parameter estimates are investigated using standardized path coefficients.

Research Question 3: What are the influences of the quality of the relationship with the immediate supervisor on job satisfaction and adaptive work behaviors? This question was answered by analyzing the structural model. The question was designed to investigate the parameter estimates' statistical significance. To be specific, the parameter estimates are associated with the path between the quality of the relationship with the immediate supervisor and job satisfaction and the path between the quality of the relationship and adaptive work behaviors. Each path's statistical significance is determined by 1.96, the CR value.

Next, the parameter estimates' directions are reviewed—negative or positive. To determine whether they are within a reasonable range of magnitude, parameter estimates are examined using standardized path coefficients.

Research Question 4: Does the quality of the relationship with the immediate supervisor mediate the influences of the perceived and preferred coaching behaviors and the discrepancy between perceived and preferred managerial coaching behaviors on job satisfaction and adaptive work behaviors? This question was answered by analyzing the structural equation model. It was designed to explore the indirect effects among perceived and preferred coaching behaviors, as well as their discrepancy, the quality of the relationship with the immediate supervisor, job satisfaction, and adaptive work behaviors by the bootstrapping analysis.

Table 14*Data Analysis Strategies for Each Research Question*

Research Question	Analysis Technique	Rationale for Technique
RQ1: What is the relationship between the perceived and preferred coaching behaviors?	Pearson product-moment correlation	Pearson product-moment correlation analyzes the strength of the association between the two independent variables which are measured by the interval scale.
RQ2: What are the influences of the perceived and preferred coaching behaviors and the discrepancy between perceived and preferred managerial coaching behaviors on the quality of the relationship with the immediate supervisor?	Structural Equation Modeling (SEM)	SEM analyzes the relationships of the three independent variables with the mediating variable.
RQ3: What are the influences of the quality of the relationship with the immediate supervisor on job satisfaction and adaptive work behaviors?	Structural Equation Modeling (SEM)	SEM analyzes the relationships of the mediating variable with the two dependent variables.
RQ4: Does the quality of the relationship with the immediate supervisor mediate the influences of the perceived and preferred coaching behaviors and the discrepancy between perceived and preferred managerial coaching behaviors on job satisfaction and adaptive work behaviors?	Structural Equation Modeling (SEM)	SEM analyzes the indirect relationships among the six latent variables.

CHAPTER 4

RESULTS

This chapter describes the survey respondents' demographic information; each variable's means, standard deviations, and range, and the inferential statistics obtained using the various data analysis techniques for each research question.

Demographic Information

This section presents the demographic information on the respondents' gender, age, highest level of education, job, team size, rank, and job tenure. 220 respondents completed the online survey for this study after 8 unreliable responses and 8 influential outliers were removed. The data were collected from two Korean multinational companies affiliated with a motor group. The response rate is not available for this study because the respondents were recruited via a mobile message on the part of HRD practitioners because of privacy and accessibility concerns, and the message was distributed to group chat rooms in which potential respondents largely participated.

Table 15 illustrates the respondents' detailed demographic information. There were 160 males (72.7%) and 60 females (27.3%), which may reflect a characteristic of the male-dominated automotive industry. The age of 207 respondents (94.1%) was between 26 and 35; eight (3.6%) were between 36 and 45; four (1.8%) were between 18 and 25, and one (0.5%) was between 46 and 55.

Table 15*Demographic Information*

	Item	Frequency	Percent
Gender			
	Male	160	72.7
	Female	60	27.3
	Total	220	100.0
Age			
	18–25	4	1.8
	26–35	207	94.1
	36–45	8	3.6
	46–55	1	.5
	Total	220	100.0
Education			
	Bachelor’s degree	196	89.1
	Master’s degree	24	10.9
	Total	220	100.0
Job			
	Research & Development	49	22.3
	Human Resource	44	20.0
	Production	35	15.9
	Environment/Health/Safety	16	7.3
	Domestic Sales & Service	15	6.8
	Quality Management	15	6.8
	IT	10	4.6
	Planning & Strategy	8	3.6
	International Sales & Service	8	3.6
	Procurement	7	3.2
	Marketing	4	1.8
	Finance & Accounting	4	1.8
	Public Relations	2	0.9
	Project	2	0.9
	Facility Management	1	0.5
	Total	220	100.0
Team size			
	10 or less	49	22.3
	11 - 15	97	44.1
	16 - 20	74	33.6
	Total	220	100.0

Table 15 Continued

	Item	Frequency	Percent
Rank			
	Staff	58	26.4
	Assistant manager	162	73.6
	Total	220	100.0
Job tenure			
	Between 1 year and 4 years	80	36.4
	Between 4 years and 8 years	128	58.1
	Between 8 years and 12 years	12	5.5
	Total	220	100.0

The respondents qualified to participate in this study were limited to those who held a bachelor's degree or above. PhD degree holders were not qualified to participate because their career begins from manager in this research setting. 196 respondents (89.1%) held a bachelor's degree and 24 (10.9%) held a master's degree.

Most respondents worked in Research and Development (22.3%), Human Resources (20.0%), or Production (15.9). Some worked in Environment, Health, and Safety (7.3%), Domestic Sales and Service (6.8%), Quality Management (6.8%), IT (4.6%), Planning and Strategy (3.6%), International Sales and Service (3.6%), or Procurement (3.2%), and a small number worked in Marketing (1.8%), Finance & Accounting (1.8%), Public Relations (0.9%), Project (0.9%), or Facility Management (0.5%).

In addition to education, there were other qualifications to respond to the survey. First, the respondents had to have 20 or fewer team members. 97 respondents (44.1%) worked with between 11 and 15 members; 74 (33.6%) worked in teams that have between 16 and 20 members, and 49 (22.3%) indicated that their teams have 10 members or fewer. Next, their rank had to be staff or assistant manager. 162 respondents (73.6%) were assistant managers and 58

(26.4%) were staff. Finally, their job tenure in the current organization had to be at least one year. 128 respondents' (58.1%) job tenure was more than 4 and fewer than 8 years; 80 (36.4%) have worked in the current organization more than 1 year and fewer than 4 years, and 12 (5.5%) indicated that their job tenure was more than 8 and fewer than 12 years.

Descriptive Statistics

This section explains the descriptive statistics, including the items and variables' means, standard deviations, and range. The two independent variables, mediator, and two outcomes were measured on a 6-point Likert-type scale. One independent variable, the discrepancy between perceived and preferred coaching behaviors, was created by processing the two independent variables. Table 16 shows the descriptive statistics for the 220 samples (N).

The lowest value was 1 and the highest value was 5 in the perceived coaching behaviors ($R = 5$). The mean ($M=3.73$, $SD=1.09$) was between *rare* (3) to *occasionally* (4). The values about preferred coaching behaviors ($M=4.65$, $SD=.87$) were distributed between 2 and 6 ($R = 4$) and their mean was higher than that for the perceived coaching behaviors. The discrepancy between perceived and preferred coaching behaviors ($M=1.09$, $SD=1.01$) showed that the mean difference between the perceived and preferred coaching behavior was near 1, although the range was between 0 and 4.86 ($R = 4.86$).

The quality of the relationship with the immediate supervisor ($M=3.53$, $SD=1.27$) was between *slightly negative* (3) and *slightly positive* (4) in the instrument. The means of the responses to job satisfaction ($M=3.96$, $SD=.96$) and adaptive work behaviors ($M=4.05$, $SD=.81$) were near *moderately agree* (4) in the survey questions, and were distributed between 1 and 6 ($R = 5$).

Table 16*Descriptive Statistics of the Variables*

Variable	Coding	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	<i>R</i>	<i>n</i>
Perceived Coaching Behaviors		3.73	1.09	1	6	5	220
	CB1	3.96	1.11	1	6	5	220
	CB2	3.77	1.25	1	6	5	220
	CB3	3.85	1.29	1	6	5	220
	CB4	3.69	1.32	1	6	5	220
	CB5	3.65	1.28	1	6	5	220
	CB6	3.50	1.40	1	6	5	220
	CB10	3.70	1.33	1	6	5	220
Preferred Coaching Behaviors		4.65	.87	1	6	5	220
	PB4	4.29	1.21	1	6	5	220
	PB5	4.34	1.12	1	6	5	220
	PB6	4.55	1.15	1	6	5	220
	PB7	4.87	1.03	2	6	4	220
	PB8	4.77	.976	1	6	5	220
	PB10	4.55	1.08	1	6	5	220
	PB11	5.18	1.01	2	6	4	220
The Discrepancy between Perceived and Preferred Coaching Behaviors		1.09	1.01	0	4.86	4.86	220
The Quality of the Relationship with the Immediate Supervisor		3.53	1.27	1	6	5	220
	LMX5	3.42	1.44	1	6	5	220
	LMX6	3.63	1.28	1	6	5	220
Job Satisfaction		3.96	.96	1	6	5	220
	JS1	4.05	1.10	1	6	5	220
	JS2	3.97	1.23	1	6	5	220
	JS3	3.97	1.21	1	6	5	220
	JS4	3.63	1.28	1	6	5	220
	JS9	4.19	1.06	1	6	5	220
Adaptive Work Behaviors		4.05	.81	1	6	5	220
	AB1	3.78	1.14	1	6	5	220
	AB2	3.84	1.03	1	6	5	220
	AB3	4.30	.96	1	6	5	220
	AB4	4.18	.90	1	6	5	220
	AB7	4.15	.95	2	6	4	220

Note. *M*=Mean; *SD*=Standard Deviation; *Min*=Minimum; *Max*=Maximum; *R*=Range;

n=Samples.

Results for Research Questions

This section answers each research question with its appropriate statistical analysis. Specifically, the first research question was addressed with a Pearson correlation analysis, while the second, third, and fourth research questions were addressed with SEM.

Research Question 1: What is the relationship between the perceived and preferred coaching behaviors?

A Pearson correlation was conducted and Table 17 shows the correlation coefficients. There were two insignificant correlations, that between preferred coaching behaviors and job satisfaction ($r=.08$), and between adaptive work behaviors and the discrepancy between perceived and preferred coaching behaviors ($r=-.02$).

The correlation between the discrepancy and preferred coaching behaviors indicated a weak and positive linear relationship ($r=.28$). However, the other four correlations associated with the discrepancy had a negative linear relation. Among them, two variables, perceived coaching behaviors ($r=-.71$), and the quality of the relationship with the immediate supervisor ($r=-.60$) showed moderately strong negative linear relations.

With respect to perceived coaching behaviors, the quality of the relationship with the immediate supervisor ($r=.72$) indicated a somewhat strong positive association. The other positive linear relationships were moderate or weak, including preferred coaching behaviors ($r=.31$), job satisfaction ($r=.44$), and adaptive work behaviors ($r=.28$).

Preferred coaching behaviors had weak and positive linear relationships with the quality of the relationship with the immediate supervisor ($r=.18$) and adaptive work behaviors ($r=.28$). Job satisfaction had a somewhat moderate correlation with three variables: the discrepancy ($r=-.36$), the quality of the relationship with the immediate supervisor ($r=.39$), and adaptive work

behaviors ($r=.36$). Finally, the correlation between adaptive work behaviors and the quality of the relationship with the immediate supervisor ($r=.25$) was positive and weak.

Table 17

Pearson Product-Moment Correlation Matrix

	CB	PB	DIF	LMX	JS	AB
CB	1					
PB	.31**	1				
DIF	-.71**	.28**	1			
LMX	.72**	.18**	-.60**	1		
JS	.44**	.08	-.36**	.39**	1	
AB	.28**	.28**	-.02	.25**	.36**	1

Note. *CB*=Perceived coaching behaviors; *PB*=Preferred coaching behaviors; *DIF*=The discrepancy between perceived and preferred coaching behaviors; *LMX*=The quality of the relationship with the immediate supervisor; *JS*=Job satisfaction; *AB*=Adaptive work behaviors.

* $p < .05$. ** $p < .01$.

To answer research question 1, the correlation coefficient between perceived and preferred coaching behaviors was reviewed, which was .31 and significant ($p < .001$). As the coefficient was slightly greater than 0.3, it indicated that the two variables have a positive and somewhat weak linear association, and thus, do not have a strong dependence (Hemphill, 2003). Further, the proportion of the variance each explained, r^2 , was calculated based upon the correlation coefficient ($r=.31$), which was 9.7% ($r^2 = .097$). Below 10% ($r^2 = .10$) indicates that the variance is too small to make the influence from one variable to the other (Falk & Miller, 1992). According to the empirical guideline (Hemphill, 2003), the lower quartile of the correlation distribution is less than .15, and 50% of the correlation coefficients were distributed

between .15 and .35. The correlation coefficient ($r=.31$) fell in the distribution range that is observed generally.

In summary, the correlation between perceived and preferred coaching behaviors showed a normal level of dependence considering the distribution range and indicated that the two do not have a strong linear relation. The variance in one variable the other explained may not have a significant meaning. Therefore, there is no evidence that perceived and preferred coaching behaviors are identical variables or influence each other significantly.

Research Question 2: What are the influences of the perceived and preferred coaching behaviors and the discrepancy between perceived and preferred managerial coaching behaviors on the quality of the relationship with the immediate supervisor?

To analyze a structural model, the fit tests need to be performed with the hypothesized model and alternative models because various plausible models can explain a multivariate dataset (McDonald & Ho, 2002). Further, the data likely reflect the characteristics of the context, such as respondents or research settings in a sampling procedure (MacCallum & Austin, 2000). Therefore, comparing a hypothesized model with competing models allows the researcher to avoid confirmation bias (McDonald & Ho, 2002), as well as select one model that fits the data better than the others (Jöreskog, 1993). In addition, if an alternative model that is nested within the hypothesized model explains the data better than the others, the model for this study can be elaborated more (Martens, 2005).

To compare the models, a limited number of alternative models should be created with theoretical justifications (McDonald & Ho, 2002; Schumacker & Lomax, 2004). Previous studies were reviewed to suggest alternative models. To be specific, the perceived coaching behaviors have a direct effect on job satisfaction (Ellinger et al., 2003). Meanwhile, there is a negative

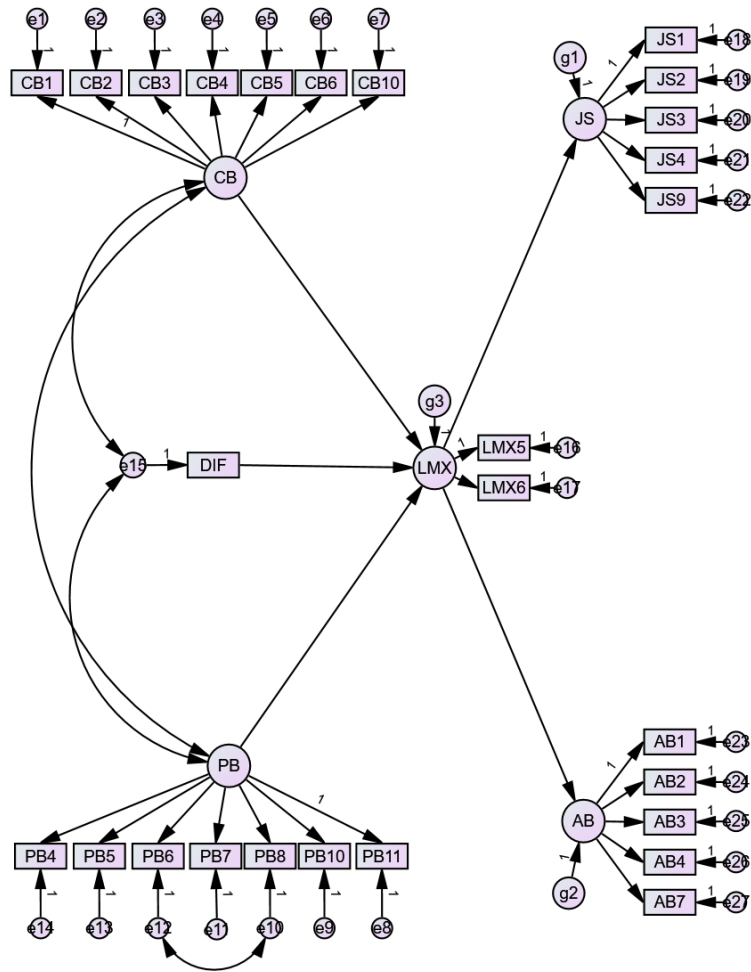
influence of the discrepancy between perceived and preferred coaching behaviors on job satisfaction (House, 1971; Yukl, 1971). Many studies on managerial coaching (Hui et al., 2019; Hui & Sue-Chan, 2018; Matsuo, 2018) found the positive relationship between perceived coaching behaviors and adaptive work behaviors. Because people have the tendency to reduce the discrepancy between the perceived states and reference values, they are likely to explore the situation until the discrepancy is resolved (Carver & Scheier, 1982). The exploratory behaviors are the critical factor for adaptive work behaviors (Jundt et al., 2015). The discrepancy between perceived and preferred coaching behaviors may have the positive influences on adaptive work behaviors. Adaptive work behaviors have the positive influence on job satisfaction (Cullen et al., 2014). Figure 4 illustrates the hypothesized model and four alternative models.

The Akaike information criterion (AIC) and expected cross-validation index (ECVI) are generally recommended to compare models (Jöreskog, 1993; Weston, & Gore Jr, 2006). The smallest AIC value among models indicates a better fit to the data. AIC penalizes an increase in estimated parameters in a model because the number of parameters is likely to improve the fit value. With ECVI, a model also accounts better for the data than the other models when it has the smallest fit index in comparison with the others (MacCallum & Austin, 2000).

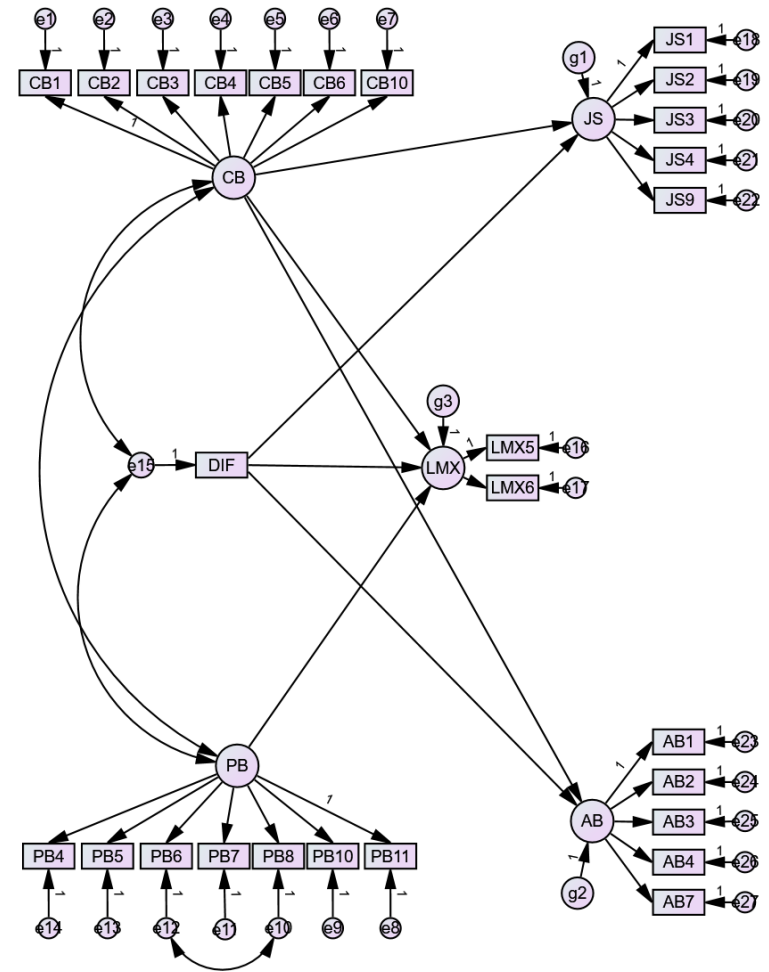
The Chi-squared (χ^2) difference test can be used to compare nested models (Schumacker & Lomax, 2004). This is because one model holds the structure of an original model and has additional estimated parameters (Werner & Schermelleh-Engel, 2010). In the test, the significance ($p < .05$) between two models is checked after both the degrees of freedom and Chi-squared (χ^2) differences are calculated. If the result is insignificant ($p \geq .05$), the model with a low Chi-squared (χ^2) value is selected: when the test result is significant ($p < .05$), the model with a high Chi-squared (χ^2) value is selected (Werner & Schermelleh-Engel, 2010).

Figure 4

The Diagram for the Hypothesized and Alternative Models

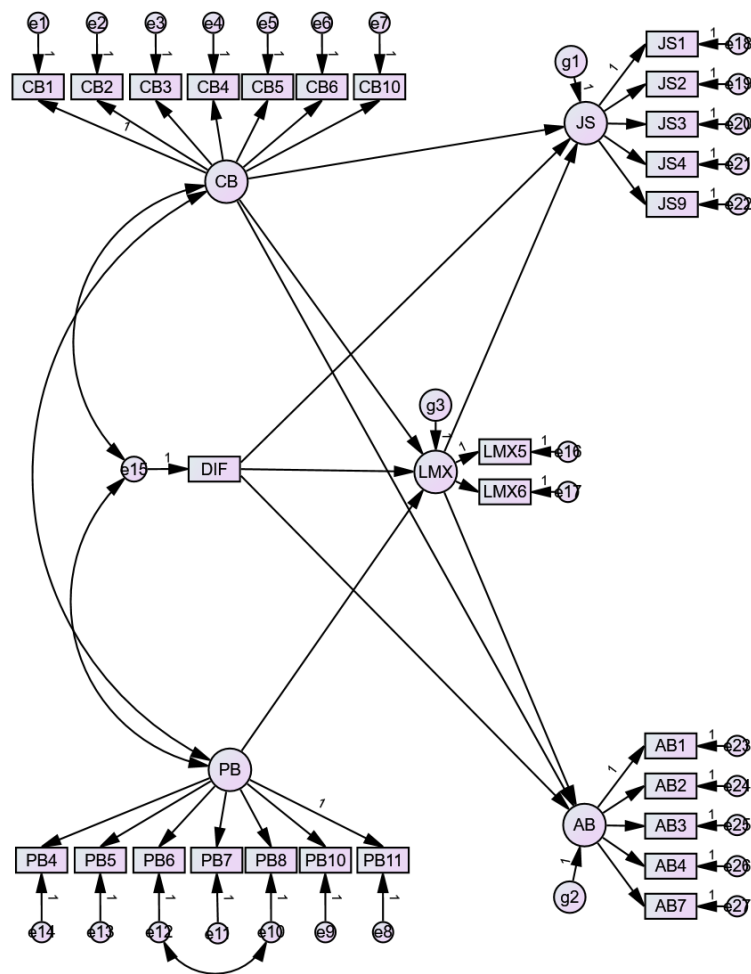


Hypothesized Model

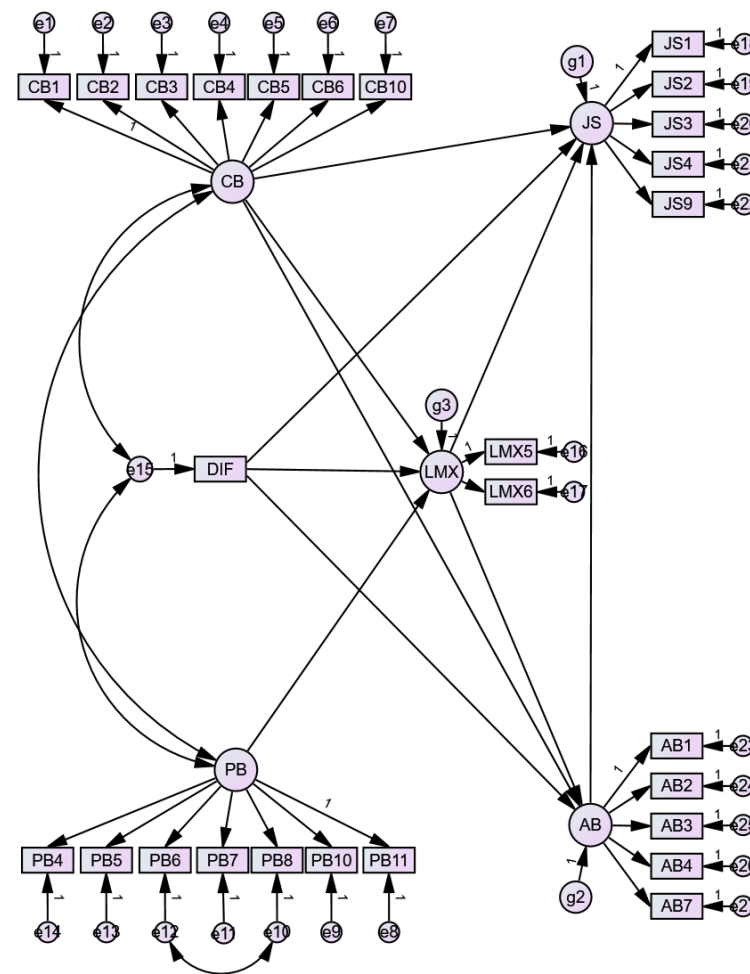


Alternative Model 1

Figure 4 Continued

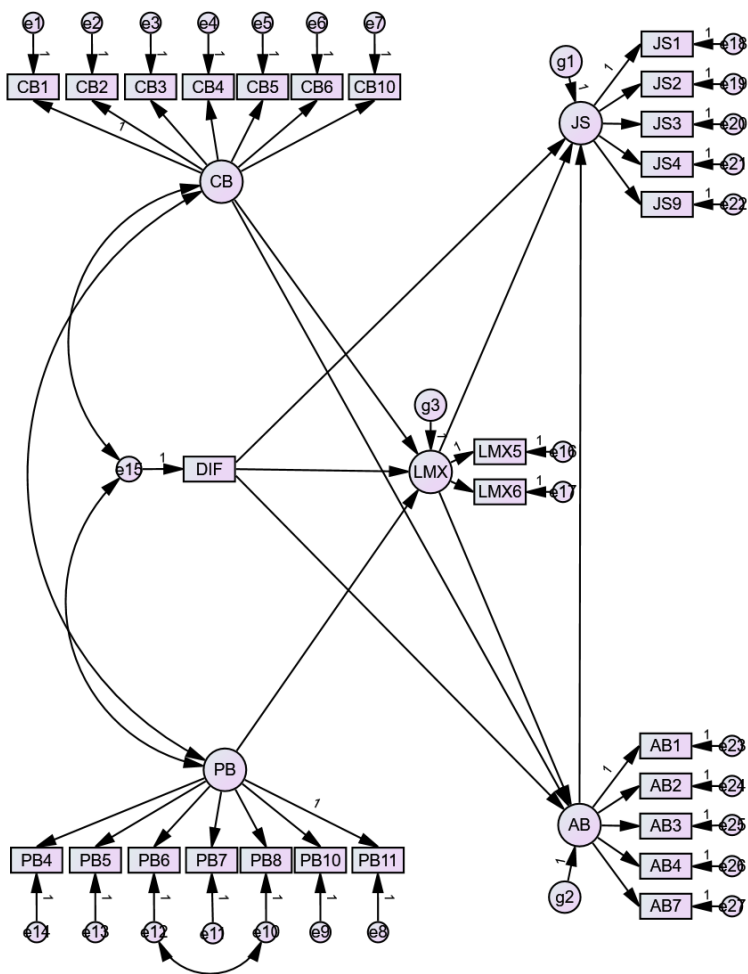


Alternative Model 2



Alternative Model 3

Figure 4 Continued



Alternative Model 4

Table 18 summarizes the results of the model fit indices. In the hypothesized model, the Chi-squared (χ^2) was 558.89 with 316 degrees of freedom ($p=.00$). Although non-significance is recommended, this value is vulnerable to sample size (Fan et al., 2016). The model fit indices (CFI = .94, GFI = .84, TLI = .93, SRMR = .08, RMSEA = .06, CMIN/DF = 1.77) were within the acceptable range.

Table 18

Model Fit Indices for Hypothesized and Alternative Models

Model Fit Indices	Hypothesized Model	Alternative Model1	Alternative Model2	Alternative Model3	Alternative Model4
Chi-square (χ^2)	558.89	539.67	534.66	512.12	512.63
<i>df</i>	316	314	312	311	312
<i>p</i> value	.00	.00	.00	.00	.00
CMIN/DF	1.77	1.72	1.71	1.65	1.64
GFI	.84	.85	.85	.86	.86
CFI	.94	.95	.95	.95	.95
TLI	.93	.94	.94	.95	.95
SRMR	.08	.07	.06	.05	.05
RMSEA	.06	.06	.06	.05	.05
AIC	682.89	667.67	666.66	646.12	644.63
ECVI	3.12	3.05	3.04	2.95	2.94

In alternative model 1, which has paths without any mediator, the perceived coaching behaviors affected the three variables, the quality of the relationship with the immediate supervisor, job satisfaction, and adaptive work behaviors, directly. The discrepancy between perceived and preferred coaching behaviors had a direct influence on the quality of the relationship with the immediate supervisor, job satisfaction, and adaptive work behaviors. Finally, preferred coaching behaviors were associated directly with the quality of the relationship with the immediate supervisor only. The χ^2 value was 539.67 ($df = 314$), and was still significant

($p=.00$). The other model fit indices (CFI = .95, GFI = .85, TLI = .94, SRMR = .07, RMSEA = .06, CMIN/DF = 1.72) were within the acceptable range. Thus, alternative model 1 had better fit indices than the hypothesized model.

Alternative model 2 was nested within the hypothesized model by adding the direct influence of perceived coaching behaviors and the discrepancy on both job satisfaction and adaptive work behaviors. The Chi-squared (χ^2) and p value were 534.66 ($df = 312$) and .00, respectively. Most model fit indices improved slightly (CFI = .95, GFI = .85, TLI = .94, SRMR = .06, RMSEA = .06, CMIN/DF = 1.71) by comparison with alternative model 1.

Alternative model 3 was the model nested within alternative model 2 by adding the direct effect of adaptive work behaviors on job satisfaction. The Chi-squared (χ^2) was 512.12 ($df = 311$), and was still significant ($p=.00$). The model fit indices (CFI = .95, GFI = .86, TLI = .95, SRMR = .05, RMSEA = .05, CMIN/DF = 1.65) were better than those in alternative model 2.

Alternative model 4 had a nested-model relationship with alternative model 3. By comparison with alternative model 3, there was no path from perceived coaching behaviors to job satisfaction. The Chi-squared (χ^2) and p value were 512.63 ($df = 312$) and .00, respectively. Most model fit indices (CFI = .95, GFI = .86, TLI = .95, SRMR = .05, RMSEA = .05) were the same as in alternative model 3, except for CMIN/DF (1.64).

Model selection was required in the study. Table 18 shows the AIC and ECVI values for the model comparison. Alternative model 4 had the smallest value (AIC=644.63, ECVI=2.94) by comparison with the hypothesized model (AIC=682.89, ECVI=3.12), alternative model 1 (AIC=667.67, ECVI=3.05), and alternative model 2 (AIC=666.66, ECVI=3.04). Further, the values of alternative model 4 were slightly smaller than those of alternative model 3 (AIC=646.12, ECVI=2.95).

Table 19 shows the results of the Chi-squared (χ^2) difference test. The discrepancy between alternative models 1 and 2 was significant, and alternative model 2 did not have a better fit than alternative model 1, although the Chi-squared (χ^2) value was lower than in alternative model 1. In addition, the difference between alternative models 3 and 4 was significant. However, alternative model 3 was insignificant compared with the other three models.

Table 19

The Chi-Square (χ^2) Difference Test Matrix

Model Fit Indices	Hypothesized Model	Alternative Model1	Alternative Model2	Alternative Model3	Alternative Model4
Hypothesized Model	-				
Alternative Model1	<i>Non-nested Relation</i>	-			
Alternative Model2	$\chi^2=18.47$ (<i>df</i> =4)	$\chi^2=5.01^*$ (<i>df</i> =2)	-		
Alternative Model3	$\chi^2=46.78$ (<i>df</i> =5)	$\chi^2=27.55$ (<i>df</i> =3)	$\chi^2=22.54$ (<i>df</i> =1)	-	
Alternative Model4	$\chi^2=46.26$ (<i>df</i> =4)	<i>Non-nested Relation</i>	<i>Non-nested Relation</i>	$\chi^2=.51^*$ (<i>df</i> =1)	-

Note. $*p = .05$ when *df* = 1 and $\chi^2 = 3.841$; when *df* = 2 and $\chi^2 = 5.991$; when *df* = 3 and $\chi^2 = 7.815$; when *df* = 4 and $\chi^2 = 9.488$; when *df* = 5 and $\chi^2 = 11.07$.

By summarizing the comparison results from AIC, ECVI, and the Chi-squared (χ^2) difference test, alternative model 4 accounted for the data better than the other models. Therefore, this study adopted alternative model 4, which was a nested model of the hypothesized model, as the final model.

Table 20

The Path Coefficients from Independent Variables to the Quality of the Relationship with the Immediate Supervisor, Job Satisfaction, and Adaptive Work Behaviors

Path Coefficient			<i>b</i>	<i>SE</i>	β	<i>CR</i>	<i>p</i> -value
Perceived Coaching Behaviors	→	The Quality of the Relationship with the Immediate Supervisor	.87	.21	.67	4.07	.00
Preferred Coaching Behaviors	→	The Quality of the Relationship with the Immediate Supervisor	.04	.23	.02	.16	.88
The Discrepancy	→	The Quality of the Relationship with the Immediate Supervisor	-.20	.16	-.17	-1.13	.26
The Discrepancy	→	Job Satisfaction	-.19	.08	-.21	-2.45	.01
Perceived Coaching Behaviors	→	Adaptive Work Behaviors	.47	.15	.45	3.05	.00
The Discrepancy	→	Adaptive Work Behaviors	.42	.10	.44	4.29	.00

Note. *b*=Unstandardized coefficient, *SE*=Standard errors, β =Standardized coefficient,

CR=Critical ratio (*t*-value: the critical value is 1.96).

Table 20 shows the associations among the three independent variables—perceived coaching behaviors, preferred coaching behaviors, and the discrepancy between the two—and the quality of the relationship with the immediate supervisor, job satisfaction, and adaptive work behaviors. Based upon alternative model 4 as the final model, the unstandardized coefficients, standard errors, standardized coefficients, and critical ratios (CR) were investigated.

As the CR value was 4.07 in the association between perceived coaching behaviors and the quality of the relationship with the immediate supervisor, the path was significant ($p = .00$). The standardized coefficient of perceived coaching behaviors on the quality of the relationship was .67. Although the standardized path coefficient from preferred coaching behaviors to the quality of the relationship with the immediate supervisor was .02, the CR value (.16) was insignificant ($p = .88$). Further, the standardized coefficient in the path from the discrepancy between perceived and preferred coaching behaviors to the quality of the relationship with the immediate supervisor was -.17 with an insignificant CR value (-1.13, $p = .26$).

The standardized coefficient in the path from the discrepancy to job satisfaction was -.21 and had a significant CR value (-2.45, $p = .01$). The direct paths from perceived coaching behaviors (CR = 3.05) and the discrepancy (CR = 4.29) to adaptive work behaviors were significant ($p = .00$). The standardized coefficient in the path from perceived coaching behaviors to adaptive work behaviors was .45, and the standardized coefficient in the path between the discrepancy and adaptive work behaviors was .44.

Therefore, perceived coaching behaviors had a significant influence only on the quality of the relationship with the immediate supervisor ($\beta = .67, p < .001$). The preferred coaching behaviors ($\beta = .02, p > .05$) and the discrepancy ($\beta = -.17, p > .05$) in this model did not affect the quality of the relationship with the immediate supervisor.

Research Question 3: What are the influences of the quality of the relationship with the immediate supervisor on job satisfaction and adaptive work behaviors?

Table 21 presents the associations among the quality of the relationship with the immediate supervisor, job satisfaction, and adaptive work behaviors. The path from adaptive work behaviors to job satisfaction was added in the final model for the study.

Table 21

The Path Coefficients among the Quality of the Relationship with the Immediate Supervisor, Job Satisfaction, Adaptive Work Behaviors.

Path Coefficient		<i>b</i>	<i>SE</i>	β	<i>CR</i>	<i>p</i> -value
The Quality of the Relationship with the Immediate Supervisor	→ Job Satisfaction	.17	.07	.23	2.37	.02
The Quality of the Relationship with the Immediate Supervisor	→ Adaptive Work Behaviors	.15	.11	.18	1.34	.18
Adaptive Work Behaviors	→ Job Satisfaction	.34	.07	.36	4.94	.00

Note. *b*=Unstandardized coefficient, *SE*=Standard errors, β =Standardized coefficient,

CR=Critical ratio (*t*-value: the critical value is 1.96).

The standardized coefficient in the path of the quality of the relationship with the immediate supervisor on job satisfaction was .23 with a significant CR value (2.37, $p = .02$). The standardized path coefficient between the quality of the relationship with the immediate supervisor and adaptive work behaviors was .18, but it was insignificant (CR = 1.34, $p = .18$). The standardized coefficient in the path from adaptive work behaviors to job satisfaction was .36 and significant (CR = 4.94, $p = .00$).

Thus, the quality of the relationship with the immediate supervisor affected job satisfaction significantly ($\beta = .23$, $p < .05$), although no significant relationship was found between the quality of the relationship with the immediate supervisor and adaptive work behaviors ($\beta = .18$, $p > .05$).

Research Question 4: Does the quality of the relationship with the immediate supervisor mediate the influences of the perceived and preferred coaching behaviors and the discrepancy between perceived and preferred managerial coaching behaviors on job satisfaction and adaptive work behaviors?

The mediation effects were checked using the bootstrapping analysis technique because alternative model 4, which was selected for this study, had multiple serial mediators. The Sobel test is not proper for serial mediators (Baron & Kenny, 1986), and the other test, Baron and Kenny's method for mediation, may indicate a mediation effect prematurely (Hayes, 2009). Given these limitations, the bootstrapping technique is more appropriate to assess mediation effects (Bollen & Stine, 1990).

The bootstrapping test is considered to have the best power and type I error control without assumptions (Hayes, 2009). The test draws cases from the original sample dataset repeatedly and randomly and constructs large numbers of simulated datasets to calculate

estimates and standard errors (Schumacker & Lomax, 2004). The simulated dataset is referred to as a resample or bootstrap sample. The same number of estimates and standard errors are created as the number of resamples, and are ordinally arranged from the lowest to highest values (Hayes, 2009). The calculation and distribution results are used to evaluate whether the statistical information in the original sample dataset is reliable and appropriate as an estimate of the population parameter (Schumacker & Lomax, 2004).

Based upon the 220 samples in the original dataset, a bootstrapping test was performed that was limited to the 95% confidence interval and 2,000 resamples. Table 22 shows the results of the test for the mediation effects.

The quality of the relationship with the immediate supervisor mediated the relationship between perceived coaching behaviors and job satisfaction significantly ($\beta = .16, p=.04$), but it had no significant mediation effects on the path from perceived coaching behaviors to adaptive work behaviors ($\beta = .12, p=.20$), the paths from preferred coaching behaviors to job satisfaction ($\beta = .00, p=.84$) and adaptive work behaviors ($\beta = .00, p=.81$), and the paths from the discrepancy between perceived and preferred coaching behaviors to job satisfaction ($\beta = -.04, p=.26$) and adaptive work behaviors ($\beta = -.03, p=.35$).

Further, there was no significant serial mediation effect, which included both the quality of the relationship with the immediate supervisor and adaptive work behaviors as the mediators, to job satisfaction from perceived coaching behaviors ($\beta = .04, p=.18$), preferred coaching behaviors ($\beta = .00, p=.79$), and their discrepancy ($\beta = -.01, p=.33$). However, the adaptive work behaviors had a significant mediation effect on the paths to job satisfaction from perceived coaching behaviors ($\beta = .16, p=.01$), and the discrepancy ($\beta = .16, p=.00$).

Table 22*The Results of Bootstrapping Test for Checking the Indirect Effects*

Path Coefficient			<i>b</i>	<i>SE</i>	95% C.I.		β	<i>z-score</i>	<i>p-value</i>
					<i>Lower</i>	<i>Upper</i>			
Perceived Coaching Behaviors	→	The Quality of the Relationship → Job Satisfaction	.15	.13	.02	.42	.16	1.18	.04
Preferred Coaching Behaviors	→	The Quality of the Relationship → Job Satisfaction	.07	.13	-.14	.19	.00	.05	.84
The Discrepancy	→	The Quality of the Relationship → Job Satisfaction	-.04	.09	-.22	.04	-.04	-.37	.26
Perceived Coaching Behaviors	→	The Quality of the Relationship → Adaptive Work Behaviors	.13	.15	-.10	.48	.12	.84	.20
Preferred Coaching Behaviors	→	The Quality of the Relationship → Adaptive Work Behaviors	.01	.14	-.14	.26	.00	.04	.81
The Discrepancy	→	The Quality of the Relationship → Adaptive Work Behaviors	-.03	.10	-.32	.04	-.03	.28	.35

Table 22 Continued

Path Coefficient				<i>b</i>	<i>SE</i>	95% <i>C.I.</i>		<i>B</i>	<i>z-score</i>	<i>p-value</i>
						<i>Lower</i>	<i>Upper</i>			
Perceived Coaching Behaviors	→ The Quality of the Relationship	→ Adaptive Work Behaviors	→ Job Satisfaction	.04	.05	-.03	.16	.04	.86	.18
Preferred Coaching Behaviors	→ The Quality of the Relationship	→ Adaptive Work Behaviors	→ Job Satisfaction	.00	.05	-.04	.09	.00	.04	.79
The Discrepancy	→ The Quality of the Relationship	→ Adaptive Work Behaviors	→ Job Satisfaction	-.01	.03	-.11	.01	-.01	-.29	.33
Perceived Coaching Behaviors	→ Adaptive Work Behaviors	→ Job Satisfaction		.16	.07	.05	.32	.16	2.39	.01
The Discrepancy	→ Adaptive Work Behaviors	→ Job Satisfaction		.14	.05	.07	.27	.16	2.86	.00

Note. *b* = Unstandardized coefficient; *SE* = Standard error; 95% *C.I.* = 95% Confidence interval; *Lower* = Lower bound; *Upper* =

Upper bound; β = Standardized coefficient; The Discrepancy = The Discrepancy between Perceived and Preferred Coaching

Behaviors; The Quality of the Relationship = The Quality of the Relationship with the immediate supervisor.

Therefore, the quality of the relationship with the immediate supervisor had a significant mediation effect on the association between perceived coaching behaviors and job satisfaction ($p < .05$), although it did not have a mediation effect on the relationship between perceived coaching behaviors and adaptive work behaviors ($p > .05$). Further, no mediation effect of the quality of the relationship with the immediate supervisor ($p > .05$) was found in the associations among preferred coaching behaviors, the discrepancy between perceived and preferred coaching behaviors, job satisfaction, and adaptive work behaviors.

Finally, the coefficient of determination, R^2 , was assessed for the quality of the relationship with the immediate supervisor, job satisfaction, and adaptive work behaviors after the insignificant paths were removed. Perceived coaching behaviors, the discrepancy, the quality of the relationship with the immediate supervisor, and adaptive work behaviors explained 33.4% of job satisfaction. Perceived coaching behaviors and the discrepancy explained 16.2% of adaptive work behaviors, while perceived coaching behaviors explained 65.4% of the quality of the relationship with the immediate supervisor.

CHAPTER 5

SUMMARY, DISCUSSION, IMPLICATIONS, AND CONCLUSION

This chapter includes four sections. The first summarizes the results of the data analysis by focusing on the study's research questions and the final model. The second discusses the research results from theoretical perspectives. The third provides the implications of this study for HRD research and practice, and the fourth presents a conclusion and recommendations for future studies.

Summary

Figure 5 and Table 23 show the summary of the model paths with the standardized coefficients and correlation coefficients. For research question 1, the correlation between the two variables, perceived and preferred coaching behaviors, was significant and indicated a weak, positive linear relation. There was no evidence that perceived and preferred coaching behaviors were an identical variable or influenced each other significantly.

With respect to research questions 2 and 3, perceived coaching behaviors affected the quality of the relationship with the immediate supervisor. Preferred coaching behaviors and the discrepancy between perceived and preferred behaviors had no effects on the quality of the relationship with the immediate supervisor. The quality of the relationship with the immediate supervisor influenced job satisfaction, although it had no effect on adaptive work behaviors.

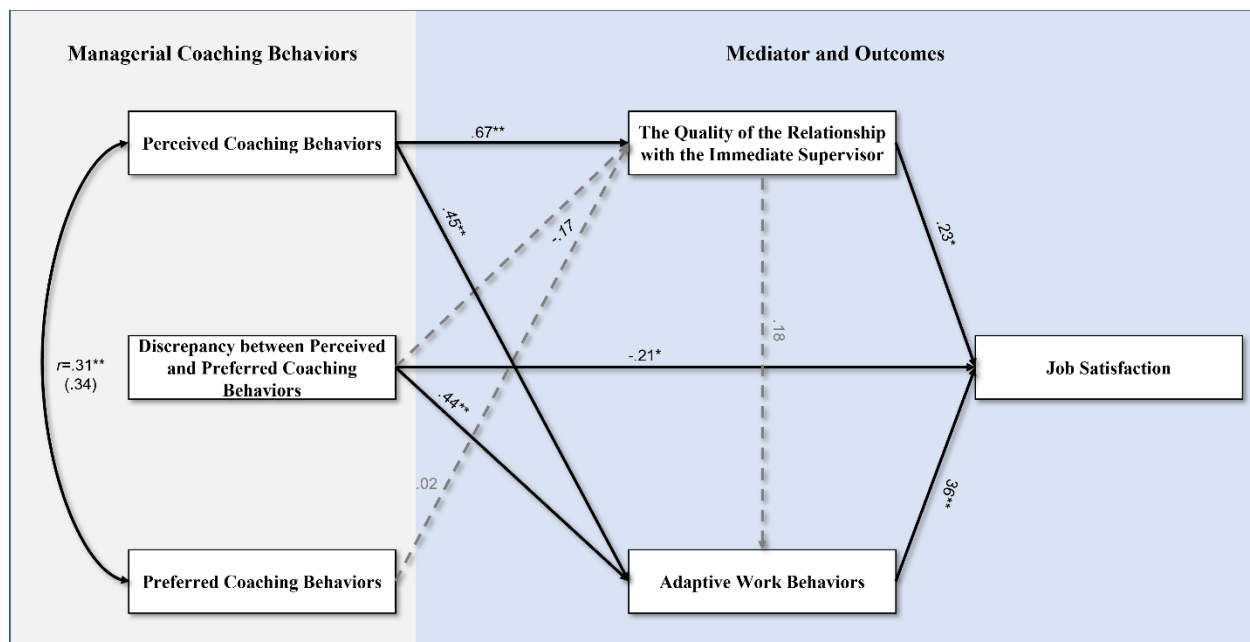
In terms of research question 4, the quality of the relationship with the immediate supervisor mediated the relationship between perceived coaching behaviors and job satisfaction. However, it did not mediate the relationship between perceived coaching behaviors and adaptive

work behaviors. Further, relationship quality did not mediate the relationships among the other two independent variables and the job-relevant outcomes.

This study tested the additional paths based upon the final model. The discrepancy between perceived and preferred coaching behaviors had a direct influence on job satisfaction. Finally, adaptive work behaviors mediated the relationship between perceived coaching behaviors and job satisfaction, as well as the relationship between the discrepancy and job satisfaction.

Figure 5

The Path Summary for the Final Model



Note. Solid-line = Significant path; Dot-line = Insignificant path; Bidirectional arrow = Correlation; Unidirectional arrow = Path coefficient; r = Correlation coefficients; Parenthesis = The correlation coefficient from AMOS.

* $p < .05$, ** $p < .01$.

Table 23

The Summary of the Direct and Indirect Effects with Standardized Coefficients

Path Coefficient				Direct effect	Indirect effect	Mediation	
Perceived Coaching Behaviors	→	The Quality of the Relationship	→	Job Satisfaction	-	.16*	Yes
Preferred Coaching Behaviors	→	The Quality of the Relationship	→	Job Satisfaction	-	.00(<i>ns</i>)	No
The Discrepancy	→	The Quality of the Relationship	→	Job Satisfaction	-.21**	-.04(<i>ns</i>)	No (Direct Effect)
Perceived Coaching Behaviors	→	The Quality of the Relationship	→	Adaptive Work Behaviors	.45*	.12(<i>ns</i>)	No (Direct Effect)
Preferred Coaching Behaviors	→	The Quality of the Relationship	→	Adaptive Work Behaviors	-	.00(<i>ns</i>)	No
The Discrepancy	→	The Quality of the Relationship	→	Adaptive Work Behaviors	.44**	-.03(<i>ns</i>)	No (Direct Effect)

Table 23 Continued

Path Coefficient					Direct effect	Indirect effect	<i>Mediation</i>		
Perceived Coaching Behaviors	→	The Quality of the Relationship	→	Adaptive Work Behaviors	→	Job Satisfaction	-	.04(<i>ns</i>)	No
Preferred Coaching Behaviors	→	The Quality of the Relationship	→	Adaptive Work Behaviors	→	Job Satisfaction	-	.00 (<i>ns</i>)	No
The Discrepancy	→	The Quality of the Relationship	→	Adaptive Work Behaviors	→	Job Satisfaction	-.21**	-.01(<i>ns</i>)	No (Direct Effect)
Perceived Coaching Behaviors	→	Adaptive Work Behaviors	→	Job Satisfaction			-	.16*	Yes
The Discrepancy	→	Adaptive Work Behaviors	→	Job Satisfaction			-.21**	.16**	Yes (Direct Effect)

Note. The Discrepancy = The Discrepancy between Perceived and Preferred Coaching Behaviors; The Quality of the Relationship =

The Quality of the Relationship with the immediate supervisor.

** $p < .001$; * $p < .05$

Discussion

This section discusses the results of the study from theoretical perspectives. Specifically, given the previous findings and theories, it considers the three independent variables' effects on the quality of the relationship with the immediate supervisor, the influences of the relationship quality on the two job-relevant outcomes, the mediation effects of adaptive work behaviors, and the influence of the discrepancy between perceived and preferred coaching behaviors on job satisfaction.

The Influences of the Three Independent Variables on the Quality of the Relationship with the Immediate Supervisor

The researcher hypothesized that both perceived and preferred coaching behaviors positively affect the quality of the relationship with the immediate supervisor, while the discrepancy between the two has a negative influence on the quality of the relationship.

Perceived Coaching Behaviors

Perceived coaching behaviors were found to have a positive effect on the quality of the relationship with the immediate supervisor. This result is consistent with the findings of previous studies (Kim & Kuo, 2015; Sluss & Thompson, 2012). As professional helping activities, perceived supervisory coaching enhances the employee's perception of the supervisor's expertise, benevolence, and honesty (Kim & Kuo, 2015). Based upon their positive perceptions of their supervisor, employees rely on, trust, and attempt to create and maintain the high quality of the social exchange with the supervisor (Lapierre, 2007).

Further, perceived coaching behaviors increased the mutuality and reciprocity between a supervisor and his or her employees (Sluss & Thompson, 2012). When employees face a work issue, supervisory behaviors, such as managerial coaching, play a role in helping them solve it

(Jones, 1986). These kinds of experiences lead employees to pay attention to the mutuality and reciprocity between themselves and their supervisor, which leads ultimately to a high-quality relationship between the two (Sluss & Thompson, 2012).

These two theoretical perspectives (Kim & Kuo, 2015; Sluss & Thompson, 2012) have emphasized perceived managerial coaching commonly as helping activities. When employees feel that managerial coaching is a supervisor's helping behavior, such as improving their competencies or performance, such coaching behavior affects their perception of the quality of the relationship with their supervisor positively.

Preferred Coaching Behaviors

According to the research results, preferred coaching behaviors had no effect on the quality of the relationship with the immediate supervisor. Based upon previous studies, this study considered one of the Big Five personality traits, extraversion, as the main determinant of preferred coaching behaviors (Nahrgang et al., 2009; Phillips & Bedeian, 1994). This is because a relatively large number of studies has examined the Big Five personality traits with diverse variables, including the quality of the relationship with the immediate supervisor, job satisfaction, and adaptive work behaviors.

However, such preferences may be associated with various individual and situational characteristics (Chelladurai, 1984; Yukl, 1971). To be specific, House (1996) argued that job competencies are the most critical characteristic that shapes employees' preferred coaching behaviors. In addition, diverse individual characteristics, such as the need for independence, achievement-orientation, authoritarianism, and the internal locus of control, affect the preferences for managerial coaching (House & Mitchell, 1975; Vroom, 1959; Yukl, 1971). These situational characteristics may affect employee's preferred coaching behaviors, such as

occupational or organizational positions, the importance of decision making, a supervisor's favored decision-making tendency, task demands, and role ambiguity (House, 1996; Yukl, 1971). Thus, various characteristics can be associated with employees' preferences. Depending upon which characteristic largely shapes the preference, the prediction of preferred coaching behaviors may vary.

The Discrepancy between Perceived and Preferred Coaching Behaviors

The discrepancy between perceived and preferred coaching behaviors had no effect on the quality of the relationship with the immediate supervisor. This result appears to reflect certain controversial findings on the relationship between the two variables. For example, Epitropaki and Martin (2005) found a positive influence of the congruence between expected and actual leadership on relationship quality. In another study, the subordinates' congruence had no effect on the relationship quality, although the supervisors' congruence had a positive influence on the quality of the relationship (Engle & Lord 1997).

According to Engle and Lord (1997), the congruence between perceived and preferred coaching behaviors may not be the social norm among the respondents when determining a high-quality relationship with a supervisor. Although this theory fit Epitropaki and Martin's research setting (2005), a Western workplace and population, it may not account for the Korean research setting or these respondents, such as cultural differences, or the generation's uniqueness.

The Korean workplace is generally based upon the military command and Confucian cultures (Hemmert, 2012). In these cultures, the relationship quality is not attributed to the congruence between the actual supervisory behaviors and the employees' preferences but is due to unidirectional caring on a leader's part, such as job security in one company (Hemmert, 2017; Lee, 2014). The military command and Confucian cultures in this study's research setting are

stronger than in other Korean companies (Lee, 2014). Although the national-level workplace cultures have become gradually westernized since the IMF crisis in 1998 (Lee, 2014), these two cultures are still dominant in the Korean workplace (Hemmert, 2017). In this context, the congruence between preference and perception may not affect the relationship quality with the immediate supervisor.

Further, most respondents in this study are members of the Millennial generation, those born after 1981 (Hersatter & Epstein, 2010). One of their unique characteristics is that they prefer professional development activities in the workplace, such as managerial coaching (Willyerd, 2015). When this generation feels that a supervisor develops their potential to become a professional sufficiently, they are likely loyal to the leader, and develop a high-quality relationship with their supervisor (Hersatter & Epstein, 2010). However, managerial coaching itself may be insufficient to develop their potential and other development activities may be required (Pelster et al., 2017). Therefore, the congruence between perceived and preferred coaching behaviors may be a necessary, but not sufficient, condition to satisfy their needs, as well as increase their perceptions of the relationship quality with their immediate supervisor.

The Influences of the Quality of the Relationship with the Immediate Supervisor on the Job-Relevant Outcomes

The quality of the relationship with the immediate supervisor was hypothesized to serve as a mediator in this study. The hypotheses were that the relationship quality with the immediate supervisor has positive effects on the job-relevant outcomes, job satisfaction and adaptive work behaviors, and further, that it mediates the relationships among the three independent variables and the job-relevant outcomes.

Job Satisfaction

In this study, the quality of the relationship with the immediate supervisor positively affected job satisfaction. This result is consistent with previous findings based upon the LMX theory (Dansereau et al., 1975; Graen & Novak, 1982). Job satisfaction is one of the popular outcomes in LMX studies and the two variables have been found to have a direct, strong positive relationship in most work (Epitropaki & Martin, 2015). This is because a supervisor controls accessibility to resources and information (Burns & Otte, 1999). In a high-quality relationship with the immediate supervisor, subordinates have a high degree of negotiating latitude, such as empowerment and supervisory support (Dansereau et al., 1975). As autonomy and accessibility increase in the workplace, they feel privileged and are satisfied with their job (Volmer et al., 2011).

Further, a high degree of negotiating latitude allows subordinates to experience skill variety, task significance, identity, autonomy, and feedback (Graen et al., 1982). These experiences help enhance employees' feelings of growth (Loher et al., 1985). Meeting the need for growth is another source of job satisfaction (Graen et al., 1982; Hackman & Lawler, 1971; Parker & Ohly, 2008). Thus, a high degree of negotiating latitude is considered the main mechanism of job satisfaction in the relationship quality with the immediate supervisor. As the employees have decision-making authority, ownership, and support in their work, they experience job satisfaction (Dansereau et al., 1975).

Finally, this study validated the mediation effect of the relationship quality on the influence of perceived coaching behaviors on job satisfaction. The mediation effect can be explained by considering previous studies. Managerial coaching improves employees' competencies and performance (Lawrence, 2017), and enhances the reciprocal relationship

between a supervisor and his or her employees as well (Kim & Kuo, 2015; Sluss & Thompson, 2012). As the reciprocal relationship develops, the supervisor trusts the employees' competencies and gives them more decision-making authority and work ownership than before (Graen & Uhl-Bien, 1995). This high degree of negotiating latitude leads them to experience job satisfaction (Dansereau et al., 1975).

Adaptive Work Behaviors

The study did not confirm the influence of the quality of the relationship with the immediate supervisor on adaptive work behaviors. This result is not consistent with those in previous studies (Basu & Green, 1997; L. Huang, 2016; J. Lee, 2008; Liao et al., 2010; Pan et al., 2012; Sweet et al., 2015; Tierney & Farmer, 2002). Their theoretical perspectives are that the supervisory support and psychological states in a high-quality relationship improve employees' adaptive work behaviors.

On-the-job learning may be the keystone to explain the influence of supervisory behaviors on employees' adaptive work behaviors (Hui & Sue-Chan, 2018; Matsuo, 2018). Pousa and Mathieu (2016) compared the effectiveness of managerial coaching with the relationship quality with a supervisor. Although the relationship quality did not affect adaptive work behaviors, managerial coaching did. The difference between the two variables was whether it facilitated employees' on-the-job learning. In the same context, Basu and Green (1997) emphasized that the quality of the relationship with the supervisor can increase employees' adaptive work behaviors when their supervisor's support develops their competencies. Other studies (Hui & Sue-Chan, 2018; Matsuo, 2018) have argued commonly that on-the-job learning is necessary for adaptability, as it helps employees obtain contextual and job knowledge as well as develop cognitive strategies. Because these forms of knowledge are synthesized through

cognitive strategies, the employees' adaptive work behaviors increased (Matsuo, 2018; Hui & Sue-Chan, 2018).

In the previous studies (Basu & Green, 1997; L. Huang, 2016; J. Lee, 2008; Liao et al., 2010; Pan et al., 2012; Sweet et al., 2015; Tierney & Farmer, 2002), there was the possibility that the supervisory support and psychological states in a high-quality relationship would facilitate on-the-job learning. For instance, strong supervisory support allows employees to gain access to work resources and obtain information on the context and job. Such accessibility and information become learning resources for employees (Sluss, & Thompson, 2012). Further, organizational commitment, work obligation, loyalty to, and trust in, a supervisor, psychological safety, risk-taking orientation, and self-efficacy in tasks improve employees' task persistence. Under the task persistence condition, employees explore their context and obtain new information continually to solve problems (Locke & Latham, 2002). Thus, on-the-job learning is likely attributable to supervisory support and psychological states.

As stated above, the Korean research setting has strong military command and Confucian cultures (Hemmert, 2018). These workplace cultures shape unique performance-oriented behavioral patterns, such as "quickly quickly" (*palli palli*) (Hemmert, 2012). Also, the employees this study's research setting show these patterns strongly (Shim & Steers, 2012). When they face any work issue, they try to solve it rapidly (Steers & Shim, 2013). Although this behavioral pattern is the source of high performance (Steers & Shim, 2012), it may create inappropriate solutions (Lee, 2014; Steers & Shim, 2020). This is because the employees likely exploit their own knowledge rather than explore the problem context and possible solutions (Lee, 2014). Accordingly, the cultural factor, the behavioral pattern, likely prevents them from

understanding the work context and developing cognitive strategies to respond to various problems and situations (Vollmeyer et al., 1996).

Therefore, these Korean workplace cultures may hamper the influences of the relationship quality with the immediate supervisor on on-the-job learning. Specifically, although employees who have a high-quality relationship with their immediate supervisor have strong supervisory support and work motivation, the high-quality relationship may not be related to on-the-job learning, but associated more with identifying a quick solution to the given task.

The Mediation Effect of Adaptive Work Behaviors

According to the results, adaptive work behaviors mediated the influences of perceived coaching behaviors and the discrepancy on job satisfaction. On-the-job learning can explain the effects of perceived coaching behaviors and the discrepancy on adaptive work behaviors (Matsuo, 2018; Pousa & Mathieu, 2016; Sluss, & Thompson, 2012).

As managerial coaching is a form of on-the-job learning in which the supervisor is involved directly, it naturally helps an employee obtain context knowledge and cognitive strategies (Liu & Batt, 2010). During coaching, a supervisor teaches an employee the way to perform a job, demonstrates proper work styles, and gives him/her clear guidance (Sluss, & Thompson, 2012). A supervisor sets goals with an employee, and provides performance feedback (Kim, 2014). Based upon these activities, the employee obtains contextual and job knowledge as well as cognitive strategies that are the resources for adaptive work behaviors (Jacobs, 2017; Matsuo, 2018).

Further, these activities help an employee achieve role clarity (Rizzo et al., 1970). Such clarity allows an employee to recognize his or her tasks, and visualize the way to perform them to try to achieve the goal (Locke & Latham, 2002). When there is a gap between the current and

expected role performance, he or she tries to reduce it (Dahling et al., 2016) by looking for proper solutions (Locke & Latham, 2002). In the process of identifying a solution, exploratory learning takes place (Kluger & DeNisi, 1996), and the by-products of such exploratory learning are the cognitive resources necessary for adaptive work behaviors (Hui & Sue-Chan, 2018).

A supervisor helps an employee achieve work ownership as elements of managerial coaching, such as encouraging thinking and supporting alternative solutions (Pousa & Mathieu, 2016). Based upon these activities, the person reflects his or her own knowledge and experiences, synthesizes knowledge and skills, and identifies the optimal way to adapt to a situation (Agarwal et al., 2009; Pousa et al., 2017). Further, the employee internalizes the ways to solve a problem situation and generates proper strategies to do so (Ellinger & Bostrom, 1999). In this way, the supervisor improves the employee's abilities to engage in adaptive work behaviors by encouraging thinking and supporting alternative solutions (Pousa & Mathieu, 2016).

The discrepancy between perceived and preferred coaching behaviors leads to on-the-job learning without a supervisor's direct involvement, that is, self-directed learning activities, if the preferred coaching behaviors are highly related to the lack of competencies in the workplace (Hui & Sue-Chan, 2018; Hui et al., 2013; Hui et al., 2019). According to the relevant theories on the discrepancy between perception and preference (House, 1971; Yukl, 1971), preference is likely associated with personal needs or deficiencies, such as the lack of job competencies. To survive in the workplace, employees' self-directed learning may occur when managerial coaching does not fulfil their preferences.

To be specific, as some of the activities necessary to solve a problem, subordinates explore unfamiliar problem situations as well as new solutions (Hui et al., 2013). Because

subordinates acquire knowledge in their work context and possible solutions as the result of exploratory learning, they show adaptive work behavior by synthesizing the knowledge (Hui & Sue-Chan, 2018). This argument (Hui & Sue-Chan, 2018) is consistent with McGrath's finding (2001).

Further, it is supported by experimental studies that found that a group with no guidance explored more and learned their task context better than a group that received specific guidance (Burns, & Vollmeyer, 2002; Vollmeyer et al., 1996). The outcome of this exploratory learning showed that the group with no guidance performed problem-solving activities better than the other when the conditions under which the tasks were performed changed. Thus, the discrepancy promotes a subordinate's self-directed learning and adaptive work behavior.

This study found that adaptive work behaviors affected job satisfaction positively, and another study (Cullen et al., 2014) also found the same result. Employees' adaptive work behaviors play the role of increasing the positive perceptions of a work situation, which leads to job satisfaction.

Finally, this study confirmed the mediation effect of adaptive work behaviors, which can be explained with reference to previous studies. Managerial coaching and the discrepancy between perception and preference facilitate employees' on-the-job learning (Matsuo, 2018; Pousa & Mathieu, 2016; Sluss, & Thompson, 2012). As they acquire contextual and job knowledge, as well as cognitive strategies via such learning, they develop adaptive work behaviors (Hui & Sue-Chan, 2018; Hui et al., 2013; Hui et al., 2019). The increase in the adaptive work behaviors offers the employees a positive perception of their workplace and provides job satisfaction (Cullen et al., 2014).

The Influence of Discrepancy between Perceived and Preferred Coaching Behaviors on Job Satisfaction

The discrepancy between perceived and preferred coaching behaviors had a direct negative effect on job satisfaction. This has been studied frequently and confirmed repeatedly in other studies (Chelladurai, 1984; House, 1971; Yukl, 1971). There are two theories that explain the relationship between the discrepancy and job satisfaction.

The path-goal theory considers a subordinate's preference as the keystone of job satisfaction (House, 1971). It assumes that job performance is instrumental in reaping an individual's desired reward, such as monetary compensation, promotion, recognition, job security, or personal growth (Georgopoulos et al., 1957; Vroom, 1964). When an employee believes that job performance is achievable as well as plays a critical role to get the desired reward, he or she positively perceives the job as an effective instrument (Evans, 1970; Lawler & Porter, 1967). Further, if his or her preferences, such as preferred work styles, are fulfilled in the work, the person is satisfied with the job (House, 1996). Each employee prefers a different work style to achieve job performance, such as clear guidance, autonomy, and a motivated work environment. However, they usually do not use the preferred work style to achieve performance without help from a supervisor (House, 1971), such as role clarity, empowerment, or encouragement. Supervisory behaviors help employees adopt their preferred work styles to achieve performance, and their job satisfaction increases (House, 1996). In other words, employees are satisfied with their job when the actual coaching behaviors match their preferred coaching behaviors.

Hence, the discrepancy between preferences and actual experience in managerial coaching behaviors affects job satisfaction (Chelladurai, 1984). Yukl (1971) suggested the

discrepancy model of leadership by reviewing previous studies, such as the value judgment of a percept. As the discrepancy between the preference and perception of supervisory behaviors decrease, job satisfaction increase because some aspects of the job maintain or improve the person's own values (Locke, 1969). According to previous studies (Chelladurai, 1984; Hunt & Liebscher, 1973; Schliesman, 1987; Singer & Singer, 1990), the congruence between perceived and preferred supervisory behaviors was associated positively with subordinates' job satisfaction. Therefore, the congruence between perceived and preferred coaching behaviors leads employees to judge their job as a useful instrument to satisfy their personal values, goals, or preferences, which provides job satisfaction.

Implications

This section discusses the implications of the research findings. The implications for HRD research are discussed, after which the implications for HRD practice are considered.

Implications for HRD Research

First, this study examined the relationship between perceived and preferred coaching behaviors empirically, as little to no research to date has investigated the relationship between the two variables. This study empirically verified that they are individual variables that are weakly correlated and have little explanatory power. Therefore, other studies may consider preferred coaching behaviors as one independent variable, or the discrepancy between perceived and preferred coaching behaviors may be thought of as an independent variable to identify the effectiveness of managerial coaching.

Second, the study identified the mediating role of the quality of the relationship with the immediate supervisor on the effectiveness of perceived coaching behaviors. Perceived coaching

behaviors had a positive effect on the employees' perception of the quality of their relationship with their supervisor. By considering this finding and relevant studies (Beattie et al., 2014; Graen & Uhl-Bien, 1995; Kim, 2014), the workplace climate and a supervisor's leadership influence may be considered other important outcomes of managerial coaching. Further, because a high-quality relationship indicates the in-group identity between a supervisor and subordinate (Scandura et al., 1986), a cross-over effect on job attitudes and behaviors may be considered another topic of managerial coaching (Bakker & Xanthopoulou, 2009). This effect is usually observed when the two parties interact frequently, as in managerial coaching (Wirtz et al., 2016). Thus, a supervisor's leadership and team culture can be investigated to verify the possible effectiveness of managerial coaching.

Third, this study confirmed the relationship between perceived coaching behaviors and adaptive work behaviors. There are two competing claims about the relationship between the two. The first is that the relationship quality with the immediate supervisor mediates the relationship between perceived coaching behaviors and adaptive work behaviors (Basu & Green, 1997; Tierney & Farmer, 2002). The second is that managerial coaching influences adaptive work behaviors alone, without relationship quality (Hui et al., 2019; Pousa & Mathieu, 2016). As these results showed, the quality of the relationship had no influence on adaptive work behaviors, while managerial coaching affected them directly. By considering previous findings (Burns & Vollmeyer, 2002; McGrath, 2001; Vollmeyer et al., 1996), on-the-job learning appears to mediate the relationship between managerial coaching and adaptive work behaviors (Matsuo, 2018; Hui & Sue-Chan, 2018). Therefore, future studies may wish to consider the relationships among managerial coaching behaviors, on-the-job learning, and adaptive work behaviors in the absence of the quality of the relationship with the immediate supervisor.

Fourth, this study found that perceived coaching behaviors influenced job satisfaction indirectly. Job satisfaction has been one of the popular outcomes studied in managerial coaching research, and previous work has examined the direct relationship between managerial coaching and job satisfaction (Ellinger et al., 2003). However, this research showed that the quality of the relationship with the immediate supervisor and adaptive work behaviors mediated managerial coaching's effects on job satisfaction. Another study (Kim, 2014) found that role clarity mediated its influence on job satisfaction. According to Locke (1969) and House (1996), managerial coaching behaviors may play an instrumental role in employees' ability to achieve personal values, goals, or preferences. After these are achieved, employees find their job satisfying. Diverse variables, such as the relationship quality, adaptive work behaviors, and role clarity can mediate the influences of managerial coaching on job satisfaction. Therefore, researchers may need to consider these mediating variables when they study the relationship between managerial coaching and job satisfaction.

Fifth, there has been little to no research on the discrepancy between perceptions of, and preferences for, managerial coaching (House, 1996). This study examined the effect of the discrepancy between the two, and found that their congruence affected job satisfaction positively. This confirmed the discrepancy model of leadership (Yukl, 1971) and path-goal theory (House, 1996) with respect to managerial coaching. However, the congruence had no influence on the quality of the relationship with the immediate supervisor, a result that is inconsistent with the implicit theory of leadership (Epitropaki & Martin, 2005). This may be attributable to cultural differences or the Millennial generation's unique characteristics (Engle & Lord 1997). Finally, the study found that the discrepancy had a positive influence on adaptive work behaviors, which is believed to facilitate exploratory learning (Hui & Sue-Chan, 2018).

This may explain the way employees survive in the workplace when managerial coaching is properly not provided. In summary, these findings can be the theoretical foundations for future research on the discrepancy in terms of managerial coaching.

Implications for HRD Practice

First, managerial coaching can be employed as an intervention to develop organizational climates or leadership. Typically, managerial coaching has been considered an intervention to improve the competency or performance of employees in the workplace (Garvin et al., 2013; Lawrence, 2017; Sloan et al., 2017). As this study's results showed, managerial coaching improved the employees' perception of the quality of the dyadic relationship between the leader and follower, as well as team members' job satisfaction. This indicates that managerial coaching can establish a supervisor's leadership influences on a team (Graen & Uhl-Bien, 1995) and can cultivate a team-level culture as well (Beattie et al., 2014). In this context, managerial coaching training can be a necessary part of a development program for new team leaders.

Second, an organization can use managerial coaching to improve and maintain a competitive advantage (Garvin et al., 2013; Sloan et al., 2017). Managerial coaching is one of the necessary steps when an employee internalizes his or her job competency (Jacobs, 2017). During coaching, the employee obtains contextual and job knowledge as well as cognitive strategies that are important for learning transfer (Jacobs, 2017). This study confirmed that managerial coaching also improved the employees' adaptive work behaviors, as knowledge and strategies are considered critical factors in adaptive work behaviors (Hui & Sue-Chan, 2018). Because of the dynamic and global workplace environment, adaptive work behaviors are essential and have become one of the competencies necessary for global businesses to compete successfully (Bersin et al., 2017b). In this context, managerial coaching is considered one of the requirements for

effective global competition (Sloan et al., 2017). Thus, HRD practitioners or employers may need to consider institutionalizing managerial coaching, such as designing and operating a structured managerial coaching program, in an organization to support their employees' adaptability.

Third, a supervisor may need to pay attention to what employees really want in terms of managerial coaching behaviors. This study found that the congruence between perceived and preferred coaching behaviors increased employees' job satisfaction, which is one of the negative predictors of turnover (Tett & Meyer, 1993). Further, it positively predicts job performance (Epitropaki & Martin, 2015). When a supervisor is sensitive to his or her subordinates' preferences, and reflects those preferences in managerial coaching, the leader can retain the subordinates and maintain or improve their performance (House, 1996). Therefore, HRD practitioners can consider including a module on needs assessment techniques in their managerial coaching training program. As well, task management software can serve the functions of analyzing and storing employees' preferences and needs.

Fourth, HRD practitioners or an organization can consider embedding opportunities for on-the-job learning in their work or HR system. When managerial coaching does not satisfy employees' preferences sufficiently, they may tend to begin exploratory learning for their survival, as a result of which, they improve their adaptive work behaviors (Hui & Sue-Chan, 2018). However, when they fail to engage in exploratory learning and develop adaptive work behaviors, they are likely to leave the workplace or poorly perform. Further, even when managerial coaching reflects their preferences, all of them may not be included in the coaching. Therefore, to enhance their adaptability, an organization can consider embedding self-directed learning opportunities in the work or HR system.

For example, an organization can facilitate a community of practice or networked learning by creating an online community (Bozarth, 2010) and peer-coaching policy (Beattie et al., 2014). This encourages employees to participate in conferences and workshops by allowing them leave to study (Jacobs & Park, 2009) and affiliate with a professional association without financial burdens (Jacobs & Washington, 2003), for example, by supporting participation and paying membership fees. Further, job rotation and shadowing, participation in projects or assignments, and brown bag meetings can be institutionalized to help the employees acquire the knowledge of the workplace necessary (Jacobs & Park, 2009).

Conclusion

This section recommends directions for future research given the limitations and findings of this study.

Mixed methods are recommended in future research. This study used the quantitative research method, and although the method identified clear relationships among the variables, there are some knowledge gaps. To be specific, the discrepancy between perceived and preferred coaching behaviors did not affect the development of a high-quality relationship in this study. The different social norms may be the reason why the relationship was insignificant (Engle & Lord 1997). The Big Five personality trait of extraversion was not the main factor that shaped preferred coaching behaviors. Instead, lack of competency may be the critical factor that determines the preferred coaching behaviors (House, 1996; Yukl, 1971). The relationships among these insignificant paths and the theoretical discussions may be confirmed after thoroughly examining the insiders' perspectives, such as interviewing or observing the study participants. The qualitative method can supplement and confirm the gap between the findings

and reality. As the qualitative method investigates the respondents' perspectives, a future study can explain the results more clearly.

Second, this conceptual framework needs to be examined in other companies or industries. The research setting for this study has the typical Korean workplace cultures, such as military command and Confucian cultures. The setting belongs to the manufacturing and is traditionally considered having a hierarchical structure (Lee, 2014). However, the typical Korean cultures may not affect some companies because organizational cultures have been shaped by various factors, such as industry, organizational structures, and historical events (Hemmert, 2017; Kim et al., 2015). Because the organizational cultures were considered the external variables in this study, research findings may vary depending on companies or industries, such as IT industry. For this reason, the future research may need to verify this framework in other Korean industries or companies.

Third, future research needs to include on-the-job learning as a mediator to investigate managerial coaching's effect on adaptive work behaviors. The relationship between managerial coaching and adaptive work behaviors was explained based upon previous studies (Matsuo, 2018; Hui & Sue-Chan, 2018; Sluss, & Thompson, 2012), and on-the-job learning is the keystone in the theoretical explanation. However, little to no empirical research has investigated both adaptive work behaviors and learning as variables in examinations of managerial coaching's effectiveness. By using the three variables, future work can empirically confirm this theoretical perspective.

Fourth, a dyadic approach is recommended when the study of managerial coaching is related to the quality of the relationship with the immediate supervisor. This study sampled the subordinates, and explored the mediating role of the relationship quality. Their supervisors'

perspective were not considered in the study. According to the LMX theory (Graen & Uhl-Bien, 1995), relationship quality has influences on both parties. A high-quality relationship establishes a supervisor's leadership influences on subordinates, as well as improves their job performance. Sampling both employees and their supervisors will allow future research to determine whether the quality of the supervisor-subordinate relationship mediates the influence of managerial coaching on the outcomes of both parties, such as supervisors' leadership and employees' job performance.

Finally, future research needs to consider turnover intention or job performance as an outcome when the two variables, the quality of the relationship with the immediate supervisor and adaptive work behaviors, are used together as mediators to examine managerial coaching's effectiveness. In the conceptual framework, adaptive work behaviors were considered one of job-relevant outcomes, but the research finding showed that this variable played the mediating role. In this context, the managerial coaching behaviors may affect the outcomes via the two mediators, such as the relationship quality and adaptive work behaviors. Given the results of previous studies (Cullen et al., 2014; Graen & Uhl-Bien, 1995; Hui & Sue-Chan, 2018), it is possible that the two mediators have a negative effect on turnover intention and positive effect on job performance. These two mediators represent the mutual relationship and individual competency in the workplace, respectively. By using turnover intention or job performance as two mediators in future studies, the research will build a theory on the way managerial coaching contributes to organizational performance, such as the talent retention or individual performance.

When these recommendations are examined in future studies, the efficacy of managerial coaching will become clearer, and HRD practitioners will obtain more specific and useful information from the research community.

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APPENDIX A

IRB APPROVAL



OFFICE OF THE VICE CHANCELLOR FOR RESEARCH & INNOVATION

Office for the Protection of Research Subjects
805 W. Pennsylvania Ave., MC-095
Urbana, IL 61801-4822

May 17, 2021

Notice of Exempt Determination: Amendment #01

Principal Investigator	Ronald Jacobs
CC	Seokwon Hwang
Protocol Title	<i>Relationships among the perceived and preferred coaching behaviors, job satisfaction, and adaptive work behaviors among employees of a South Korean organization with the quality of relationships with immediate supervisor</i>
Protocol Number	21758
Funding Source	Unfunded
Review Category	Exempt 2 (i)
Amendment	• Adding compensation (coffee coupon) that participants can opt in by providing phone number • Recruitment strategy updated • Language on questionnaires updated
Determination Date	May 17, 2021 (Amendment Approval Date)
Closure Date	March 18, 2026

This letter authorizes the use of human subjects in the above protocol. The University of Illinois at Urbana-Champaign Office for the Protection of Research Subjects (OPRS) has reviewed your application and determined the criteria for exemption have been met.

The Principal Investigator of this study is responsible for:

- Conducting research in a manner consistent with the requirements of the University and federal regulations found at 45 CFR 46.
- Requesting approval from the IRB prior to implementing major modifications.
- Notifying OPRS of any problems involving human subjects, including unanticipated events, participant complaints, or protocol deviations.
- Notifying OPRS of the completion of the study.

Changes to an **exempt** protocol are only required if substantive modifications are requested and/or the changes requested may affect the exempt status.

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

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APPENDIX B

ENGLISH VERSION OF CONSENT FORM AND SURVEY QUESTIONNAIRE

Online Survey Consent Form

Relationships among the perceived and preferred coaching behaviors, job satisfaction, and adaptive work behaviors among employees of a South Korean organization with the quality of relationships with immediate supervisors as a mediating variable.

You are being invited to participate in a voluntary research study. The purpose of this study is to investigate the relationships among the perceived and preferred coaching behaviors, job satisfaction, and adaptive work behaviors among employees of a South Korean organization with the quality of relationships with immediate supervisors as a mediating variable. This study is conducted by Seokwon Hwang, the doctoral student, and supervised by Dr Ronald Jacobs, the professor of Education Policy, Organization and Leadership Department from University of Illinois at Urbana-Champaign.

This research will be performed at an online survey website. You will need to participate one time at your convenience when this survey is underway. And you will last approximately 15 minutes. After clicking the “Start” button at the bottom of this consent, you will answer your demographic information to check your eligibility for this research participation. After then, you will be asked to complete an online survey of multiple choices about your perception and preference of managerial coaching behaviors, the relationship quality with your supervisor, job satisfaction and adaptive work behaviors. Lastly, you will finish this survey by clicking the “Submit” button.

Your decision to participate or decline participation in this study is completely voluntary and you have the right to terminate your participation at any time without penalty. If you want do not wish to complete this survey, just close your browser.

Although your participation in this research may not benefit you personally, it will help us understand how managerial coaching behaviors support employees’ workplace activities. Furthermore, it will help us design effective training and development activities which you would experience in the workplace. There are no expected risks to individuals participating in this survey beyond those that exist in daily life. Your decision to participate, decline, or withdraw from participation will have no effect on your current status or future relations with the University of Illinois at Urbana-Champaign.

We will send a free coupon (Mobile coupon) of the tall-sized Starbucks Americano to your mobile phone number if you complete this online survey and want the coupon. If you do not mind receiving the free coupon, please leave your mobile phone number on the last page of this online survey. The mobile coupon will be sent to you within 14 days after completing the online survey. The mobile phone number will be immediately deleted for protecting your privacy after sending the coupon.

Will my study-related information be kept confidential?

Your answers in this survey will not be exposed to anyone in your organization. Faculty, staff, students, and others with permission or authority to see your study information will maintain its confidentiality to the extent permitted and required by laws and university policies. **Your de-identified information could be used for future research without additional informed consent.** Therefore, no

information will be included that would reveal your identity, even though the results of the research are published or discussed in conference.

Who should I contact if I have questions?

If you have questions about this project, you may contact

Dr Ronald Jacobs
rljacobs@illinois.edu
+1-217-333-2155 (USA)

Seokwon Hwang
shwang44@illinois.edu
+1-217-377-6111 (USA)

If you have any questions about your rights as a participant in this study or any concerns or complaints, please contact the University of Illinois at Urbana-Champaign Office for the Protection of Research Subjects at +1-217-333-2670 (USA) or via email at irb@illinois.edu.

Please screenshot this consent form if you would like to retain a copy for your records.

I have read and understood the above consent form. I certify that I am 18 years old or older and by clicking “Start” button to enter the survey, I indicate my willingness to voluntarily take part in this study.

START

Demographic Information

Please check which can best describe you for each question.

1. How can you describe your nationality?

- Korean Nationality
- Other Nationality

2. What is your age?

- 17 or younger
- 18–25
- 26–35
- 36–45
- 46–55
- 55 or older

3. How long have you worked for the current organization?

- Less than 1 year
- Between 1 year and 4 years.
- Between 4 years and 8 years.
- Between 8 years and 12 years
- More than 12 years

4. What is the highest level of school that you have completed?

- High school diploma (or GED)
- 2-year college degree
- 4-year college degree
- Graduate-level degree (including Master and Doctoral degree)
- None of the above

5. How many people are in your team?

- 10 or less
- 10-15
- 16-20
- 21-30
- 31 or more

6. Which category describes your current job?

- Management planning/Strategy
- Public relations
- Marketing
- International sales
- Finance/Accounting/Management
- HRM/HRD/General affair/Labor relations
- IT
- Domestic sales
- Research & Development
- Procurement
- Production
- Safety/Environment/Health
- Etc. (Please specify)

7. How do you describe your current rank?

- G1 (or Staff)
- G2 (or Assistant manager)
- G3 (or Manager)
- G4 (or Deputy general manager or above)

8. How can you describe your gender?

- Male
- Female

As you respond to the survey, please keep in mind your most recent experiences with coaching from your current team leader as the basis for your responses.

The Perceived Managerial Coaching Behaviors

Based on your experience, please check the best answer you can think about each question.

	Never	Very Rare	Rare	Occasionally	Very Frequently	Always
9. My team leader gives me feedback about my work.						
10. My team leader uses examples from other situations to help me understand my work.						
11. My team leader suggests new ways to do my work better.						
12. My team leader identifies my work goals jointly with me.						
13. My team leader provides periodic feedback about my progress in achieving my work goals.						
14. My team leader negotiates my work goals with me.						
15. My team leader helps me to develop self-confidence in doing my work.						
16. My team leader encourages me to find my own style of doing my work.						
17. My team leader encourages me to try out new ways to improve my work.						
18. My team leader encourages me to consider new ways of thinking about my work.						
19. My team leader removes the obstacles that I might face in doing my work.						

The Preferred Managerial Coaching Behaviors

Please check your preference about each question.

	Never	Very Rare	Rare	Occasionally	Very Frequently	Always
20. I prefer my team leader gives me feedback about my work.						
21. I prefer my team leader uses examples from other situations to help me understand the work.						
22. I prefer my team leader suggests new ways to do my work better.						
23. I prefer my team leader identifies my work goals jointly with me.						
24. I prefer my team leader provides periodic feedback about my progress in achieving my work goals.						
25. I prefer my team leader negotiates my work goals with me.						
26. I prefer my team leader helps me to develop self-confidence in doing my work.						
27. I prefer my team leader encourages me to find my own style of doing my work.						
28. I prefer my team leader encourages me to try out new ways to improve my work.						
29. I prefer my team leader encourages me to consider new ways of thinking about my work.						
30. I prefer my team leader removes the obstacles that I might face in doing my work.						

The Quality of Relationship with the Immediate Supervisor

Based on your experience on the relationship with your team leader, please check the best answer you can think about each question.

	Never	Very Rarely	Rarely	Occasionally	Very Frequently	Always
31. Do you know where you stand with your leader...[and] do you usually know how satisfied your leader is with what you do?						
	Not a bit	A Very Little	A Little	A Fair Amount	Quite a bit	A Great Deal
32. How well does your leader understand your job problems and needs?						
	Not at all	A Very Little	A Little	Moderately	Mostly	Fully
33. How well does your leader recognize your potential?						
	Extremely Unlikely	Unlikely	Less Unlikely	Less Likely	Likely	Extremely Likely
34. Regardless of how much formal authority your leader has built into his or her position, what are the chances that your leader would use his or her power to help you solve problems in your work?						
35. Again, regardless of the amount of formal authority your leader has, what are the chances that he or she would "bail you out" at his or her expense?						
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
36. I have enough confidence in my leader that I would defend and justify his or her decision if he or she were not present to do so.						

	Extremely Ineffective	Ineffective	Less Ineffective	Less Effective	Effective	Extremely Effective
37. How would you characterize your working relationship with your leader?						

Job Satisfaction

Please identify how much do you agree with each statement below.

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
38. Overall, I am satisfied with my job.						
39. In general, I like working here.						
40. I like doing the things I do at work.						
41. I am satisfied with the amount of personal growth and development I get in doing my job.						
42. I like the people I work with.						
43. My supervisor is unfair to me (Reverse)						
44. I feel I am being paid a fair amount for the work I do.						
45. When I do a good job, I receive the recognition for it that I should receive.						
46. I feel secure about my job.						
47. I often feel that I do not know what is going on with the organization. (Reverse)						

Adaptive Work Behaviors

Please identify how much do you agree with each statement below.

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
48. I do not hesitate to go against established ideas and propose an innovative solution.						
49. I develop new tools and methods to resolve new problems.						
50. I analyze possible solutions and their ramifications quickly to select the most appropriate one.						
51. I easily reorganize my work to adapt to the new circumstances.						
52. I try to understand the viewpoints of my counterparts to improve my interaction with them.						
53. I willingly adapt my behavior whenever I need to in order to work well with others.						
54. I am on the lookout for the latest innovations in my job to improve the way I work.						
55. I look for every opportunity that enables me to improve my performance (training, group project, exchanges with colleagues, etc.).						
56. I keep my cool in situations where I am required to make many decisions.						
57. I look for solutions by having a calm discussion with colleagues.						

-The End of Document-

APPENDIX C

KOREAN VERSION OF CONSENT FORM AND SURVEY QUESTIONNAIRE

온라인 설문 참여 동의서

한국조직에서 직원들이 인식하고 선호하는 직장상사의 코칭행동, 직무 만족도, 적응성, 그리고 직장상사와 관계의 질의 관계

여러분은 자발적 참여를 요구하는 연구에 참가자로 초대되었습니다. 본 연구는 한국조직에서 직원들이 직장상사의 코칭행동 인식정도 및 선호정도, 직무 만족도, 적응성, 그리고 직장상사와 관계의 질의 관계를 알아보고자 하는 목적으로 실시됩니다. 또한 해당 연구는 일리노이 대학교의 교육 정책, 조직, 그리고 리더십 (Education Policy, Organization and Leadership) 학과의 교수인 Ronald Jacobs 박사의 지도하에 황석원 박사과정생이 진행합니다.

본 연구는 온라인 설문형식으로 진행됩니다. 설문 진행하는 기간 중, 여러분이 편리한 시간대를 이용하여 한번의 참여로 답변하실 수 있습니다. 그리고 온라인 설문에 응답에 대략 15 분 정도가 소요됩니다. 화면 하단의 “시작” 버튼을 클릭하신 후에, 인구통계학적 정보에 응답하여 설문 참여자격을 확인합니다. 그 후에 여러분은 본 설문을 통하여 지각된 직장상사의 코칭행동, 선호하는 직장상사의 코칭행동, 직장상사와 관계의 질, 직무 만족도, 적응행동에 답변하시게 됩니다. 마지막으로 “제출” 버튼을 클릭하시면, 설문이 완료됩니다.

본 연구는 온전히 여러분의 자발적 참여에 기반하여 운영됩니다. 여러분께서는 언제든지 설문도중에 어떠한 불이익도 없이 연구참여를 중단하실 수 있습니다. 만약 설문 조사를 진행 중 더이상 설문을 진행하고 싶지 않으시다면 설문 조사에 참여하고 계신 웹 브라우저를 닫으시면 됩니다.

본 설문 결과는 학자들에게 직장상사의 코칭행동이 부하직원의 회사생활을 어떤 유익한 점이 있는지에 대한 이해에 도움이 됩니다. 이러한 학문적 발견은 궁극적으로 여러분의 일터에서 경험할 수 있는 교육훈련 활동의 개선으로도 연결이 될 수 있습니다. 참고로, 설문 조사에 참여하는 것은 일상활동에 존재하는 위험수준을 넘어가지 않습니다. 또한, 본 설문에 참여, 거부, 혹은 중간에 참여를 취소하는 어떠한 결정도 여러분과 일리노이 대학교(University of Illinois at Urbana-Champaign) 간의 현재 혹은 미래의 관계에 아무런 영향을 미치지 않습니다.

단, 끝까지 응답하신 모든 분들에게는 스타벅스 톨사이즈 아메리카노 커피 1 잔 (모바일 쿠폰)을 입력하신 휴대 전화번호로 보내 드릴 예정입니다. 응답을 완료하신 분들은 잊지 마시고 모바일 쿠폰을 수령할 휴대 전화번호를 설문 마지막 페이지에 꼭 입력해주시기 바랍니다. 모바일 쿠폰은 설문을 하신 후 14 일 이내에 발송될 예정입니다. 또한, 개인정보 보호 차원에서, 쿠폰 발송이 완료된 후에 입력하신 휴대번호는 즉각적으로 폐기됩니다.

연구와 관련된 개인정보의 비밀이 유지되나요?

본 설문조사에 참여한 여러분의 모든 답변은 여러분이 속한 조직의 누구에게도 공개되지 않습니다. 여러분의 설문 조사 정보에 접근하도록 허가 혹은 권한이 있는 교수진, 직원, 학생들, 혹은 관련된 그 누구라도 법률과 일리노이 대학교 규정에 의해 본 설문에 대한 비밀 유지가 요구되며, 이를 위해 최선의 노력을 다할 것입니다. 또한 본 연구는 참가자의 이름이나 개인식별이 되는 정보를 사용하지 않습니다. **따라서 본 연구의 결과가 출판되거나 학술대회에서 발표되더라도 여러분의 신분을 나타낼 어떠한 정보도 포함되지 않습니다.**

만약에 질문이 있다면 누구에게 연락을 해야 하나요?

본 설문 및 연구와 관련하여 질문이 있다면,

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만약에 이 연구에 참여하는 여러분의 권리에 대한 질문, 걱정되는 점, 혹은 불만이 있다면, 일리노이 대학교 연구참가자 보호 사무실 (University of Illinois Office for the Protection of Research Subjects)로 이메일(irb@illinois.edu) 혹은 전화(미국: +1-217-333-2670)으로 연락주시기 바랍니다.

만약에 본 동의서를 보관하고 싶으시다면, 본 페이지를 스크린 캡처하여 주십시오.

본인은 위 설문 조사 참여 동의서를 읽고 이해하였습니다. 본인은 만 18 세 이상임을 보증하며, 아래의 동의 버튼을 눌러 설문조사에 참여하는 것이 이 연구에 자발적으로 참여하고자 하는 나의 의지의 표현임을 밝힙니다.

시작

인구통계학 정보

여러분의 일반정보를 묻는 아래의 문항들에 답해주세요.

1. 본인의 국적을 선택해 주십시오.

- 대한민국 국적
- 외국 국적

2. 본인의 나이는 어떻게 됩니까?

- 만 17세 이하
- 만 18세 이상 만 25세 이하
- 만 26세 이상 만 35세 이하
- 만 36세 이상 만 45세 이하
- 만 46세 이상 만 55세 이하
- 만 56세 이상

3. 현재 본인이 속한 조직에서 얼마나 오랫동안 일해 왔습니까?

- 1년 이하
- 1년 이상 4년 미만
- 4년 이상 8년 미만
- 8년 이상 12년 미만
- 12년 이상

4. 본인의 최종 학력은 어떻게 됩니까?

- 고등학교 졸업 (검정고시 포함)
- 전문대학교 졸업
- 4년제 대학교 졸업
- 대학원 졸업

5. 현재 본인의 팀에 몇 명이 일합니까?

- 10명 이하
- 10명 이상 15명 미만
- 16명 이상 20명 미만
- 21명 이상 30명 미만
- 31명 이상

6. 현재 어떤 직업군에서 근무하십니까?

- 경영기획/전략
- 홍보
- 마케팅
- 해외 영업
- 재무/회계/경영관리
- 인사/교육/총무/노무/혁신
- IT
- 국내영업
- 연구개발
- 구매
- 생산/품질
- 안전/환경/보건
- 기타 (해당 부서를 써주세요:)

7. 본인의 현재 직급은 어떻게 됩니까?

- G1 (혹은 사원)
- G2 (혹은 대리)
- G3 (혹은 과장)
- G4 (혹은 차장 및 그 이상 직급)

8. 본인의 성별을 표기해 주십시오.

- 남성
- 여성

귀하의 현재 팀장을 떠올리며, 가장 최근의 코칭/피드백 경험에 기반하여 아래 설문에 응답해주시기 바랍니다.

지각된 직장상사의 코칭 행동

본인의 경험을 가장 잘 묘사하는 것을 항목별로 하나씩 선택하여 주세요.

	전혀	매우 드물게	드물게	때때로	매우 자주	언제나
9. 팀장은 업무와 관련해 적절한 피드백을 제공한다.						
10. 팀장은 내가 업무를 잘 이해할 수 있도록, 다른 상황을 예로 들어 설명한다.						
11. 팀장은 나에게 더 나은 업무 수행 방법에 대한 아이디어를 제안한다.						
12. 팀장은 나와 함께 업무목표를 수립한다.						
13. 팀장은 업무목표 성취 진척도에 대한 피드백을 주기적으로 제공한다.						
14. 팀장은 나와 합의하여 업무목표를 조정한다.						
15. 팀장은 내가 일을 하는데 자신감을 갖도록 도와준다.						
16. 팀장은 나에게 적합한 업무방식을 찾을 수 있도록 격려한다.						
17. 팀장은 나에게 업무를 개선을 위한 새로운 시도를 장려한다.						
18. 팀장은 나에게 새로운 관점에서 업무를 고민하도록 격려한다.						
19. 팀장은 내가 업무를 하면서 직면하게 되는 장애물을 제거해 준다.						

선호하는 직장상사의 코칭 행동

본인의 선호를 가장 잘 묘사하는 것을 항목별로 하나씩 선택하여 주세요.

	전혀	매우 드물게	드물게	때때로	매우 자주	언제나
20. 나는 팀장이 업무와 관련해 적절한 피드백을 주는 것을 좋아한다.						
21. 나는 팀장이 업무 이해를 돕기 위해, 유사한 상황을 예로 들어 설명하는 것을 좋아한다.						
22. 나는 팀장이 더 나은 업무수행 방법에 대한 아이디어를 제안해 주는 것을 좋아한다.						
23. 나는 팀장이 나와 함께 업무목표를 수립하는 것을 좋아한다.						
24. 나는 팀장이 업무목표 성취 진척도에 대한 피드백을 주기적으로 제공하는 것을 좋아한다.						
25. 나는 팀장이 나와 합의하여 업무목표를 조정하는 것을 좋아한다.						
26. 나는 팀장이 업무를 통해 전문가로서 자신감을 키울 수 있도록 도와주는 것을 좋아한다.						
27. 나는 팀장이 나에게 적합한 업무방식을 찾을 수 있도록 격려해 주는 것을 좋아한다.						
28. 나는 팀장이 업무 개선을 위한 새로운 시도를 장려해 주는 것을 좋아한다.						
29. 나는 팀장이 새로운 관점에서 업무를 고민하도록 장려해 주는 것을 좋아한다.						
30. 나는 팀장이 업무를 하면서 직면하게 되는 장애물을 제거해 주는 것을 좋아한다.						

직장상사와 관계의 질

본인의 경험을 기반으로, 본인과 팀장 간의 관계를 가장 잘 묘사하는 것을 항목별로 하나씩 선택하여 주세요.

	전혀	매우 드물게	드물게	때때로	매우 자주	언제나
31. 팀장이 당신을 어떻게 생각하는지...(그리고) 당신이 한 일에 대해 팀장이 얼마나 만족하는지 알고 있습니까?						
	전혀	아주 약간	약간	어느정도	상당히	거의
32. 팀장은 당신이 처한 업무상 문제와 욕구를 얼마나 잘 이해하고 있습니까?						
	전혀	아주 약간	약간	어느정도	대부분	완전히
33. 팀장은 당신의 잠재력을 얼마나 잘 인식하고 있습니까?						
	전혀	아주 약간	약간	어느정도	상당히	거의
34. 공식적인 업무권한과 상관없이, 팀장이 영향력을 발휘하여 당신의 업무상 문제를 해결하는데 도움을 줄 가능성은 얼마나 됩니까?						
35. 공식적인 업무권한과 상관없이, 팀장이 본인을 희생하여 당신을 곤경에서 구해줄 가능성은 얼마나 됩니까?						
	강하게 동의하지 않는다	어느정도 동의하지 않는다	약간 동의하지 않는다	약간 동의한다	어느정도 동의한다	강하게 동의한다
36. 팀장이 당신의 기대를 벗어나는 행동을 할지라도, 그의 결정을 변호하고 옹호할 수 있을 만큼 팀장을 충분히 신뢰한다.						
	상당히 비생산적인	비생산적인	약간 비생산적인	약간 생산적인	생산적인	상당히 생산적인
37. 당신은 팀장과의 업무 관계를 어떻게 묘사할 수 있습니까?						

직무 만족도

본인을 가장 잘 묘사하는 것을 항목별로 하나씩 선택하여 주세요.

	전혀 그렇지 않다	대체로 그렇지 않다	약간 그렇지 않다	약간 그렇다	대체로 그렇다	매우 그렇다
38. 대체로, 나는 내 업무에 만족한다.						
39. 일반적으로, 나는 이곳에서 일하는 것을 좋아한다.						
40. 나는 직장에서 하는 일들을 좋아한다. (업무외 활동 포함)						
41. 나는 업무를 통한 개인성장과 역량개발에 만족한다.						
42. 나는 나와 함께 일하는 사람들을 좋아한다.						
43. 팀장은 나에게 불공평하다.						
44. 나는 내가 하는 일에 대해 상당한 보수를 받고 있다고 느낀다.						
45. 나는 업무를 훌륭히 완수했을 때, 그에 상응하는 인정을 받는다.						
46. 나는 내 직업에 안정감을 느낀다.						
47. 나는 조직에 어떤 일이 벌어지고 있는지 모른다고 느낄 때가 종종 있다.						

적응행동

본인을 가장 잘 묘사하는 것을 항목별로 하나씩 선택하여 주세요.

	전혀 그렇지 않다	대체로 그렇지 않다	약간 그렇지 않다	약간 그렇다	대체로 그렇다	매우 그렇다
48. 나는 기존 관행을 탈피하고 혁신적 솔루션을 제안하는데 망설임이 없다.						
49. 나는 새로운 문제를 해결하기 위해, 새로운 도구와 방법을 개발한다.						
50. 나는 가장 적합한 해결방법을 찾기 위해, 가능한 해결책 및 결과를 빠르게 분석한다.						
51. 나는 새로운 환경에 적합하게, 내업무를 쉽게 재조직화한다.						
52. 나는 업무 관련자와 수월한 의사소통을 위해, 그들의 관점을 이해하려고 노력한다.						
53. 나는 타인과 업무를 수월히 진행하기 위해서, 필요시 언제든지 그들에게 적합하게 내행동을 기꺼이 맞춘다.						
54. 나는 내가 일하는 방식을 개선하기 위해, 업무와 관련된 최신의 혁신적인 것들을 살펴본다.						
55. 나는 나의 성과를 개선하기 위한 모든 기회(예시: 교육훈련, 그룹 프로젝트 참가, 동료와 정보 교환, 등)를 찾아본다.						
56. 나는 내가 중요한 의사결정을 해야 하는 상황에서 침착을 유지한다.						
57. 나는 동료와 차분한 토론을 통하여 해결책을 찾는다.						

– The End of Document –

APPENDIX D

DATA CODING SUMMARY TABLE

Table 24

Data Coding and Summary of Selected Items for Data Analysis

Item Number	Coding	Included in SEM Analysis	Survey Question
Item1	CB1	Yes	My team leader gives me feedback about my work.
Item2	CB2	Yes	My team leader uses examples from other situations to help me understand my work.
Item3	CB3	Yes	My team leader suggests new ways to do my work better.
Item4	CB4	Yes	My team leader identifies my work goals jointly with me.
Item5	CB5	Yes	My team leader provides periodic feedback about my progress in achieving my work goals.
Item6	CB6	Yes	My team leader negotiates my work goals with me.
Item7	CB7	No (EFA)	My team leader helps me to develop self-confidence in doing my work.
Item8	CB8	No (EFA)	My team leader encourages me to find my own style of doing my work.
Item9	CB9	No (EFA)	My team leader encourages me to try out new ways to improve my work.

Table 24 Continued

Item Number	Coding	Included in SEM Analysis	Survey Question
Item10	CB10	Yes	My team leader encourages me to consider new ways of thinking about my work.
Item11	CB11	No (EFA)	My team leader removes the obstacles that I might face in doing my work.
Item12	PB1	No (EFA)	I prefer my team leader gives me feedback about my work.
Item13	PB2	No (EFA)	I prefer my team leader uses examples from other situations to help me understand the work.
Item14	PB3	No (EFA)	I prefer my team leader suggests new ways to do my work better.
Item15	PB4	Yes	I prefer my team leader identifies my work goals jointly with me.
Item16	PB5	Yes	I prefer my team leader provides periodic feedback about my progress in achieving my work goals.
Item17	PB6	Yes	I prefer my team leader negotiates my work goals with me.
Item18	PB7	Yes	I prefer my team leader helps me to develop self-confidence in doing my work.
Item19	PB8	Yes	I prefer my team leader encourages me to find my own style of doing my work.

Table 24 Continued

Item Number	Coding	Included in SEM Analysis	Survey Question
Item20	PB9	No (EFA)	I prefer my team leader encourages me to try out new ways to improve my work.
Item21	PB10	Yes	I prefer my team leader encourages me to consider new ways of thinking about my work.
Item22	PB11	Yes	I prefer my team leader removes the obstacles that I might face in doing my work.
Item23	LMX1	No (Discriminant Validity)	Do you know where you stand with your leader...[and] do you usually know how satisfied your leader is with what you do?
Item24	LMX2	No (EFA)	How well does your leader understand your job problems and needs?
Item25	LMX3	No (Discriminant Validity)	How well does your leader recognize your potential?
Item26	LMX4	No (Discriminant Validity)	Regardless of how much formal authority your leader has built into his or her position, what are the chances that your leader would use his or her power to help you solve problems in your work?
Item27	LMX5	Yes	Again, regardless of the amount of formal authority your leader has, what are the chances that he or she would “bail you out” at his or her expense?
Item28	LMX6	Yes	I have enough confidence in my leader that I would defend and justify his or her decision if he or she were not present to do so.
Item29	LMX7	No (EFA)	How would you characterize your working relationship with your leader?

Table 24 Continued

Item Number	Coding	Included in SEM Analysis	Survey Question
Item30	JS1	Yes	Overall, I am satisfied with my job.
Item31	JS2	Yes	In general, I like working here.
Item32	JS3	Yes	I like doing the things I do at work.
Item33	JS4	Yes	I am satisfied with the amount of personal growth and development I get in doing my job.
Item34	JS5	No (EFA)	I like the people I work with.
Item35	JS6	No (EFA)	My supervisor is unfair to me (Reverse)
Item36	JS7	No (EFA)	I feel I am being paid a fair amount for the work I do.
Item37	JS8	No (EFA)	When I do a good job, I receive the recognition for it that I should receive.
Item38	JS9	Yes	I feel secure about my job.
Item39	JS10	No (EFA)	I often feel that I do not know what is going on with the organization. (Reverse)

Table 24 Continued

Item Number	Coding	Included in SEM Analysis	Survey Question
Item40	AB1	Yes	I do not hesitate to go against established ideas and propose an innovative solution.
Item41	AB2	Yes	I develop new tools and methods to resolve new problems.
Item42	AB3	No (EFA)	I analyze possible solutions and their ramifications quickly to select the most appropriate one.
Item43	AB4	Yes	I easily reorganize my work to adapt to the new circumstances.
Item44	AB5	No (EFA)	I try to understand the viewpoints of my counterparts to improve my interaction with them.
Item45	AB6	No (EFA)	I willingly adapt my behavior whenever I need to in order to work well with others.
Item46	AB7	Yes	I am on the lookout for the latest innovations in my job to improve the way I work.
Item47	AB8	Yes	I look for every opportunity that enables me to improve my performance (training, group project, exchanges with colleagues, etc.).
Item48	AB9	No (EFA)	I keep my cool in situations where I am required to make many decisions.
Item49	AB10	No (EFA)	I look for solutions by having a calm discussion with colleagues.

APPENDIX E

HARMAN'S SINGLE FACTOR TEST

Table 25

The Results of the Common Method Bias Test

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	15.856	32.359	32.359	15.856	32.359	32.359
2	5.761	11.757	44.115			
3	3.997	8.156	52.272			
4	2.257	4.606	56.878			
5	1.454	2.967	59.845			
6	1.407	2.872	62.716			
7	1.129	2.303	65.019			
8	1.058	2.160	67.179			
9	1.005	2.051	69.230			
10	.962	1.963	71.194			
11	.855	1.745	72.938			
12	.794	1.621	74.560			
13	.738	1.507	76.066			
14	.716	1.461	77.527			
15	.682	1.393	78.920			
16	.672	1.372	80.292			
17	.662	1.351	81.642			
18	.587	1.198	82.840			
19	.548	1.119	83.959			
20	.536	1.094	85.053			
21	.475	.970	86.023			
22	.460	.938	86.961			
23	.440	.898	87.860			
24	.420	.858	88.717			
25	.402	.821	89.539			
26	.369	.754	90.293			

Table 25 Continued

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
27	.364	.742	91.034			
28	.347	.708	91.743			
29	.320	.653	92.396			
30	.305	.623	93.019			
31	.298	.608	93.626			
32	.284	.579	94.205			
33	.255	.521	94.726			
34	.243	.495	95.221			
35	.237	.484	95.705			
36	.219	.448	96.153			
37	.212	.433	96.586			
38	.193	.393	96.979			
39	.185	.377	97.356			
40	.172	.351	97.707			
41	.163	.333	98.040			
42	.154	.314	98.354			
43	.145	.295	98.649			
44	.127	.259	98.908			
45	.125	.255	99.163			
46	.118	.240	99.403			
47	.109	.222	99.625			
48	.103	.210	99.835			
49	.081	.165	100.000			

Extraction Method: Principal Component Analysis.

APPENDIX F

MAHALANOBIS DISTANCE

Table 26

Mahalanobis D-Squared Table

Observation number	Mahalanobis d-squared	p1	p2
83	105.439	.000	.000
10	103.909	.000	.000
115	84.155	.000	.000
183	80.529	.000	.000
87	73.153	.000	.000
56	68.264	.000	.000
98	67.646	.000	.000
129	66.621	.000	.000
5	64.190	.001	.000
119	61.845	.001	.000
216	59.470	.002	.000
166	59.204	.002	.000
138	58.724	.003	.000
97	58.097	.003	.000
137	57.297	.004	.000
24	56.552	.005	.000
120	55.075	.007	.000
207	54.800	.007	.000
79	54.748	.007	.000
190	54.616	.008	.000
19	53.798	.009	.000
90	51.075	.018	.000
47	50.626	.019	.000
182	50.516	.020	.000
189	49.682	.024	.000
8	49.409	.025	.000
25	48.614	.030	.000
54	48.247	.033	.000
171	47.988	.034	.000
32	47.652	.037	.000
177	47.025	.042	.000
28	46.736	.045	.000

Table 26 Continued

Observation number	Mahalanobis d-squared	p1	p2
200	46.444	.048	.000
67	45.820	.054	.000
29	45.788	.054	.000
134	45.015	.063	.000
135	44.895	.065	.000
220	44.884	.065	.000
123	44.807	.066	.000
36	44.477	.070	.000
143	44.418	.071	.000
69	44.060	.076	.000
41	43.811	.080	.000
66	43.124	.091	.000
86	42.716	.098	.000
148	42.706	.098	.000
161	42.600	.100	.000
60	42.344	.104	.000
64	42.333	.105	.000
153	42.283	.106	.000
38	42.237	.106	.000
57	42.104	.109	.000
125	42.083	.109	.000
88	41.882	.113	.000
188	41.817	.115	.000
39	41.715	.117	.000
23	41.684	.117	.000
6	41.410	.123	.000
167	41.057	.131	.000
156	40.646	.141	.000
160	40.530	.143	.000
93	40.477	.145	.000
118	39.780	.162	.000
9	39.490	.170	.000
194	39.016	.184	.000
59	38.989	.184	.000
26	38.798	.190	.000
228	38.586	.196	.000
107	38.417	.202	.000
150	37.699	.225	.003
55	37.509	.231	.003

Table 26 Continued

Observation number	Mahalanobis d-squared	p1	p2
174	37.387	.235	.003
158	37.260	.240	.004
201	37.000	.249	.006
52	36.643	.262	.015
139	36.490	.268	.017
84	36.439	.270	.014
154	36.027	.286	.036
133	35.975	.288	.031
198	35.722	.298	.048
144	35.296	.315	.109
191	35.096	.323	.137
209	35.069	.325	.116
164	34.533	.348	.277
80	34.311	.357	.338
227	34.128	.366	.383
179	34.126	.366	.333
12	34.035	.370	.330
61	33.997	.372	.301
169	33.969	.373	.268
185	33.962	.373	.229
73	33.847	.378	.237
78	33.621	.389	.299
131	33.619	.389	.255
196	33.363	.401	.336
168	33.120	.412	.419
128	33.109	.413	.374
124	32.485	.443	.678
212	32.380	.448	.686
140	32.252	.454	.706

APPENDIX G

EFA RESULT

Table 27

EFA Pattern Matrix

	Factor				
	1	2	3	4	5
CB1	.824				
CB2	.802				
CB3	.740				
CB4	.802				
CB5	.870				
CB6	.646				
CB9	.577				
PB4		.791			
PB5		.754			
PB6		.826			
PB7		.872			
PB8		.760			
PB10		.738			
PB11		.567			
LMX1					.476
LMX3					.509
LMX4					.663
LMX5					.863
LMX6					.697
JS1				.761	
JS2				.858	
JS3				.865	
JS4				.746	
JS9				.536	
AB1			.822		
AB2			.903		
AB3			.625		
AB4			.688		
AB7			.695		

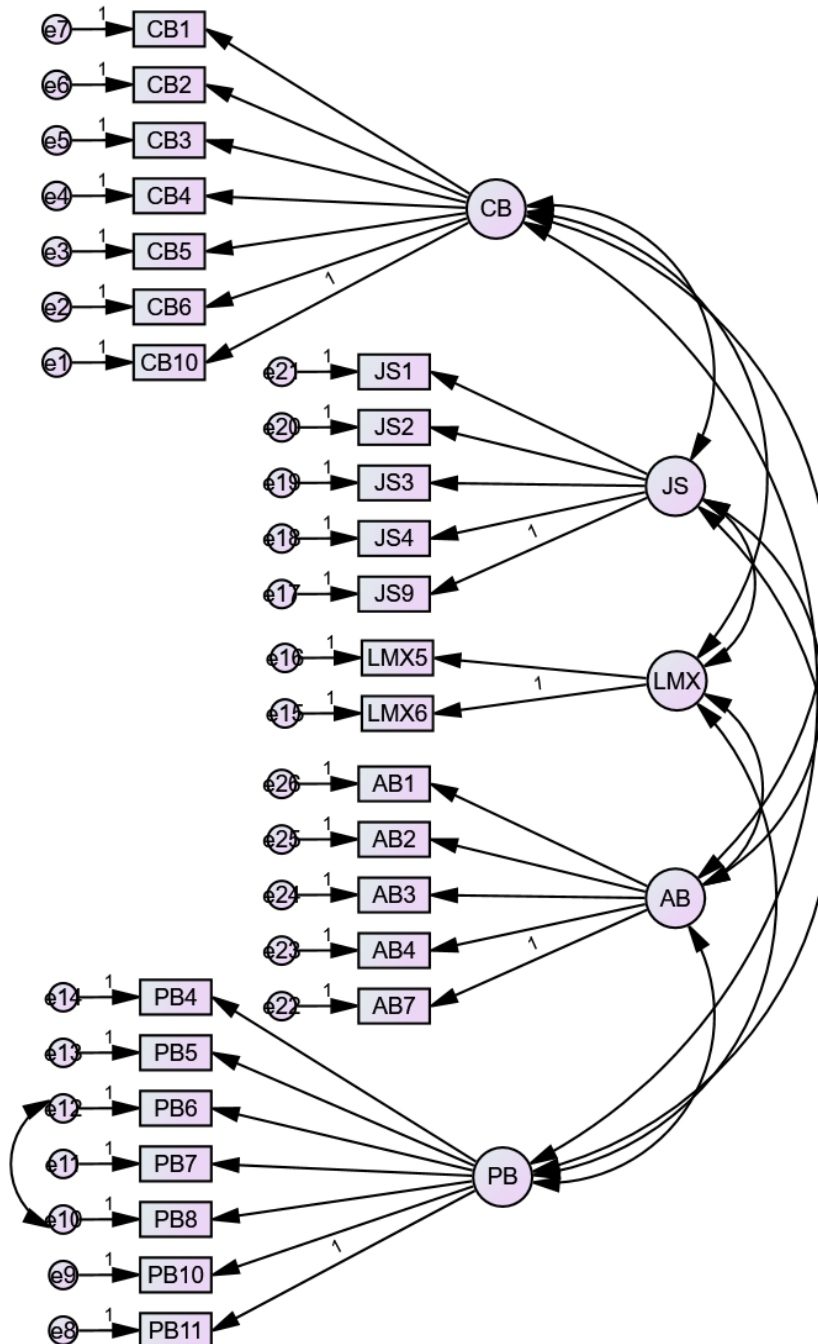
Note. Extraction method: maximum likelihood. Rotation method: Oblimin with Kaiser normalization. Rotation converged in 9 iterations.

APPENDIX H

MEASUREMENT MODEL (CFA)

Figure 6

The Result of CFA



APPENDIX I

FULL STRUCTURAL MODEL WITH STANDARDIZED COEFFICIENTS

Figure 7

The Result of Structural Equation Modeling Analysis

