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Managerial Coaching, Job Performance, and Team Commitment: The Meditating Effect of Psychological Capital

Yu-Ping Hsu[1], Peng Chun-Yang[1], Ting Pi-Hui[1] and Tu Ching-Wei[1]

Abstract

The present study aimed to examine the effects of managerial coaching on job performance and team commitment as well as to investigate the mediating effect of psychological capital. This study adopted a convenient sampling method by selecting the employees of local Taiwanese enterprises as research subjects. To avoid common method variances, this study utilized two sets of questionnaires: one designed for supervisors and the other for employees. The results of structural equation modeling **(SEM)** showed that managerial coaching had significant effects on both job performance and team commitment. The results also indicated that the relationships between managerial coaching and job performance and between managerial coaching and team commitment were significantly mediated by psychological capital. Conclusions, practical implications, and directions for future research were also discussed and provided.

JEL classification numbers: M1, M10
Keywords: Managerial coaching, Psychological capital, Job performance, Team commitment.

[1]Chang Jung Christian University, Taiwan

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1 Introduction

Coaching has become a long-term human resource development strategy (Hackman & Wageman, 2005) and has attracted a lot of attention from many organizations over the years. Managers and scholars have seen effective coaching as one of the best practices to achieve successful management, leadership, and learning in an organization (Ellinger et al., 2003; Evered & Selman, 1989; Peterson & Hicks, 1996). Managers or supervisors acting as coaches in the workplace work closely with employees to identify the cause of performance gaps and provide feedback to employees. It has been suggested that effective coaching can improve employee morale and self-confidence, increase employee knowledge and ability, and promote positive work attitudes and employee behavior, thereby contributing to the organization's overall performance (Hackman & Wageman, 2005).

According to the organizational support theory (OST) and perceived organization support (POS) proposed by Eisenberger, Huntington, Hutchinson, and Sowa (1986), when employees perceive that the organization values their contributions, meets their needs, and cares about their well-being (higher POS levels), the norm of reciprocity (Gouldner, 1960) evokes their sense of obligation to help the organization achieve its goals (Eisenberger et al., 1986). Previous research has shown that POS has a positive impact on employee outcomes such as job satisfaction, job performance, organizational commitment, and turnover intention (Armeli, Eisenberger, Fasolo, & Lynch, 1998; Arshadi, 2011; Eisenberger et al., 1986; Eisenberger, et al., 1990; Rhoades & Eisenberger, 2002) because it creates an obligation in employees to pay the organization back.

Following this logic and building on OST, this study aims to investigate the relationships among managerial coaching, psychological capital, job performance, and team commitment. Hackman and Wageman (2005) pointed out that effective coaches can motivate team members to complete tasks and produce active learning, thereby enhancing team task performance. Ellinger, Ellinger, and Keller (2003) emphasized that coaches can display effective managerial coaching behaviors by establishing goals, communicating effectively, motivating employees, recording performance and providing feedback, as well as developing employees. Drawing on the perspective of OST, the present study presumes that managers or supervisors who demonstrate effective managerial coaching behaviors will

enhance the levels of self-efficacy, hope, optimism, and resilience of employees' psychological capital. In turn, this positive state of mind may boost employees' obligation to show positive work attitudes and behaviors beneficial to the organization. Since no known research has explored the relationships among managerial coaching, psychological capital, job performance, and team commitment, this study intends to consider managerial coaching as an antecedent variable while treating psychological capital as a mediating variable and viewing job performance and team commitment as behavioral and attitudinal outcomes, respectively. In addition, the study also uses the conservation of resources theory (COR; Hobfoll, 1989) as a theoretical basis for describing the relationships between psychological capital and work outcomes (i.e., job performance and team commitment).

These research findings may serve as a valuable reference for managers/supervisors by raising awareness about how effective coaching behaviors can motivate team members' positive psychological capital, leading to high-performance, highly dedicated teams that contribute to the organization's continued growth.

2 Review of Literature and Hypotheses

2.1 Managerial coaching

The term *coach* was originally used in sports in the 1880s. A coach is viewed as an instructor who instructs individuals (e.g., tennis, golf, and skiing) and team players (e.g., basketball, football, and rowing) on how to enhance their performance. Coaches have played an important leading role for individuals and teams in most organized sports over the past century (Evered & Selman, 1989).

In the work setting, the essence of a coach's role is to empower employees by promoting self-learning, personal growth, and performance improvement (Bresser & Wilson, 2010). Combined with coaching and leadership, managerial coaching is defined as an activity that allows managers to promote learning, encourage self-discovery for what subordinates want to achieve, and guide them to improved performance (Ellinger et al., 2003; Ellinger et al., 2011; Whitmore, 2010). According to the Chartered Institute of Personnel and Development's (CIPD) learning and development survey (2006), 47% of line managers use coaching in their work. A CIPD (2007) learning and development survey reported the

important organizational effort necessary to build internal managerial coaching capability. This trend suggests that line managers and supervisors acting as managerial/career coaches are increasingly responsible for implementing many HR practices such as training and development (Coetzer, 2007).

In terms of managerial coaching skills, the conceptual and practitioner literature typically describes listening, analytical, interviewing, questioning, and observation skills as essential for managerial coaches. However, the ability to translate these coaching skills into useful work-related outcomes by engaging in specific coaching behaviors is also critical to managerial coaching. Prior research on managerial coaching shows that managerial coaching behaviors include giving and receiving performance feedback, communicating and setting clear expectations, creating and promoting a supportive learning environment, providing resources, transferring ownership to employees, and broadening employee perspectives (Beattie, 2006; Ellinger & Bostrom, 1999; Longenecker & Neubert, 2005). Ellinger et al. (2003) identified eight types of supervisory managerial coaching behaviors, including the following: "using analogies, scenarios, and examples," "broadening employees' perspectives," "providing feedback to employees," "soliciting feedback from employees," "being a resource for removing obstacles," "encouraging employees to think through issues," "setting and communicating expectations," and "stepping into other people's shoes to shift perspectives."

Past research reveals that managerial coaching can lead to desirable work outcomes (Ellinger et al., 2003, 2008; Arshadi, 2011). This study will examine job performance and team commitment as behavioral and attitudinal outcomes of managerial coaching in the work environment.

2.1.1 Job performance

Campbell (1990) defined job performance an organizational member's behavior to fulfill the organization's expectation, stipulation, or formalization of the requirements of the role. More specifically, job performance refers to employee performance level when they reach their work goals. According to Siswanto (2002: 235), performance refers to the quality and quantity of work an employee achieves in carrying out his assigned tasks and jobs. Rivai (2004: 309) stated that employee performance is the true behavior that every employee carries out based on their role in the organization. In this study, job performance is defined as an employee's

in-role performance, in other words, as the employee's performance of contractually obligated work-related activities (Babin & Boles, 1996).

2.1.2 Team Commitment

Organizational commitment can be defined as an employee's psychological attachment to the organization (Meyer & Allen, 1984; O'Reilly & Chatman, 1986). Organizational commitment is the degree to which an employee is involved in his organization and the strength of his identification with a particular organization. An employee with high organizational commitment has a firm belief in the organization, accepts the organization's values and missions, is willing to make considerable efforts for the organization's benefit, and has a strong desire to maintain a membership in the organization (Mowday et al., 1982).

It is reported that approximately 78% of US organizations have structured some of their employees into work teams. It appears that the use of work teams has become a popular strategy to increase productivity and worker flexibility in the United States (Bishop, Scott, & Burroughs, 2000). Being committed to a team within an organization can mean that an individual's psychological attachment is stronger, because it is to a team rather than to an organization (Pearce & Herbik, 2004). Prior research indicated that team commitment could be defined in the same way as organizational commitment; that is, characterized by the acceptance of team values and goals, the willingness to strive for the team, and the desire to maintain a membership in the team (Becker & Billings, 1993; Schlechter & Strauss, 2008).

2.1.3 The effects of managerial coaching on job performance and team commitment

According to OST (Eisenberger, et al., 1986), management support is an important resource that employees can use to improve their job performance. Managerial coaching can be seen as a form of social support provided by line managers or supervisors in job-related information and feedback. Managers use a process of feedback to express their gratitude to employees for their efforts and achievements. When employees feel valued by the organization, it allows them to devote more energy and time to improve their performance and thus benefit the organization (Shanock & Eisenberger, 2006).

With regard to the relationship between managerial coaching and work outcomes, Ellinger et al. (2003) studied the impact of coaching behavior on job performance and employee satisfaction with line managers. The research results of Ellinger et al. (2003) reveal that managers who used coaching behaviors not only improved employee job satisfaction, but also improved their work commitment levels and ultimately improved their performance as compared to their local counterparts. A longitudinal study by Liu and Batt (2010) found that the more employees receive effective managerial coaching, the more their job performance significantly improves. Pousa and Mathieu (2014) also conducted two international field studies, one using B-to-B salespersons working in Latin America and the other using B-to-C frontline employees at a service organization in Canada. Their empirical results show that coaching can improve employee performance; coaching is responsible for between 2.9% and 6.2% of the variance in performance while controlling for tenure and sales experience. In addition, Akhtar and Zia-ur-Rehman (2017) examined the influence of managerial coaching behavior on job performance and the role of organizational commitment and role clarity among 283 employees from different banks in Rawalpindi and Islamabad. Their regression analysis results revealed a positive relationship between managerial coaching and role clarity, as well as between job performance and organizational commitment. Prior research supports a positive relationship between managerial coaching and job performance; therefore, the present study has developed the following hypothesis.

H1: Managerial coaching has a positive effect on job performance.

In the extant managerial coaching literature, abundant research has explored the aforementioned associations between managerial coaching and job performance. However, the relationship between managerial coaching and team commitment has not been investigated. To fill this gap, the present study used a team as the referent for organizational commitment and followed the organizational commitment research by Mowday, Steers, and Porter (1979), which predicted a positive relationship between managerial coaching and team commitment. That is, effective managerial coaching behaviors (e.g., giving performance feedback, communicating and setting clear expectations, creating and promoting a supportive learning environment, and providing resources) are likely

to inspire employees' commitment toward their team, unit or department. Accordingly, the following hypothesis was developed.
H2: Managerial coaching has a positive effect on team commitment.

2.2 Psychological capital

Psychological capital is defined as "an individual's positive psychological state of development" (Luthans et al., 2007: 3). It includes four components: self-efficacy, hope, optimism, and resilience. Self-efficacy means that employees have the confidence to make the necessary efforts to successfully complete challenging tasks. Hope means that employees are working hard to achieve their goals. In order to be successful, they can re-select the method of achievement when necessary. Optimism means that employees attribute positive events to individuals in a lasting and widespread way and attribute negative events to external contextual factors. In other words, they give positive attribution to current and future success. Resilience refers to employees' ability to respond to and resolve their own problems when they encounter difficulties or adversity, even surpassing the original state to achieve their goals (Luthans et al., 2007; Luthans, Youssef-Morgan, & Avolio, 2015).

An empirical study by Luthans et al. (2007) found that the four components of psychological capital have potentially interactive cognitive and motivational processes. Youssef and Luthans (2012) pointed out that the combination of these four is more effective than any one individual component because it is more predictive of employee performance and employee satisfaction. People with a high degree of positive psychological capital are more confident in accepting challenging tasks and have a firm belief in success, the motivation to work hard when they encounter difficulties, and the ability to rebound from the bottom and start over when needed.

2.2.1 The effect of managerial coaching on psychological capital

A coach manager is a manager who directs the team members in a work environment. A person being coached is called a coachee. According to Hunt and Weintraub (2002), effective coaching is more powerful and useful than just providing feedback to employees with performance problems. Hunt and Weintraub (2002) claimed that coach managers promote reflection and learning; they

encourage employees to take ownership of issues and to develop and actively participate in their work. Hamlin, Ellinger, and Beattie (2009) hold similar views, stating that coaching is a helping practice that guides employees, groups, and organizations to gain new expertise, performance, and the capability to promote their personal improvement, efficiency, and growth. In view of this definition of coaching in the work environment, the present study assumes that managerial coaching can boost self-efficacy, hope, optimism, and resilience aspects of an employee's psychological capital. The following hypothesis is therefore developed.

H3: Managerial coaching has a positive effect on psychological capital.

2.2.2 The effects of psychological capital on job performance and team commitment

In the workplace, the COR theory (Hobfoll, 1989) claims that employees will preserve, protect, and nurture the resources they value when (1) there is a threat of resource loss; (2) there is an actual loss of resources; and (3) the inability to invest resources exists. When employees fail to receive or perceive a return on the resources they have provided, they will feel psychological discomfort. These resources include: object resources, conditions, personal characteristics, and energies. Psychological capital can be regarded as a kind of individual resource. Employees with positive psychological capital usually expect good things to happen at work (optimism), believe that they can perform the work well (self-efficacy and hope), and are less susceptible to setbacks (resilience).

Psychological capital is a positive psychological element. The higher an individual's psychological capital, the more easily the individual applies a positive perception and understanding to the things around him. When faced with difficulties and setbacks in the workplace, an individual with strong psychological capital tends to face them with positive attitudes and behaviors. This is evident in the current research about psychological capital. For instance, a meta-analysis study conducted by Avey et al. (2011) indicated that psychological capital comprised of hope, optimism, efficacy, and resilience is significantly related to organizational commitment, citizenship behavior, and job performance. Wang, Tsai, Tsai, Huang, and Dela Cruz (2018) examined the relationship between the antecedents and consequences of psychological capital using a sample of 208

entrepreneurs from the Philippines. Their results reveal that psychological capital has significant and positive effects on entrepreneurs' job satisfaction, performance, an organizational citizenship behavior. Yildiz (2018) conducted an empirical study on the effect of psychological capital and personality on the organizational commitment among 217 white- and blue-collar employees. Their results show that psychological capital positively affected affective, continuance, and normative organizational commitments.

In view of this prior research (Avey et al., 2011; Wang et al., 2018; Yildiz, 2017), the present study assumes that within the context of a team, unit, or department, psychological capital is positively related to job performance and team commitment. Thus, the following hypotheses are developed.

H4: Psychological capital has a positive effect on job performance.

H5: Psychological capital has a positive effect on team commitment.

2.2.3 The mediating effect of psychological capital

With regard to the mechanisms linking coaching to employee work outcomes, some previous scholars have provided various empirical evidence. Kim, Egan, Kim, and Kim (2013) examined the influence of managerial coaching behavior on work-related employee reactions among 482 employees in a Korean public organization. Kim et al. (2013) viewed managerial coaching behavior as the independent variable, considered employee role clarity and satisfaction with work outcomes as the mediator variables, and regarded career and organizational commitment and employee job performance as the dependent variables. They found significant mediating effects in their hypothesized model-role clarity mediated on job performance; satisfaction with work mediated career and organization commitment. Moreover, Raza, Ali, Ahmed, and Ahmad (2018) used the structural equation modeling (SEM) analysis technique to test the effect of managerial coaching on organizational citizenship behavior (OCB) among 361 workers. Their findings reveal that thriving at work significantly mediated the relationship between managerial coaching and OCB. The aforementioned studies have confirmed the existence of mediators in the relationship between coaching and work outcomes. Among these, this study will examine psychological capital as a mediator.

As stated in previous research, psychological capital plays an important role

in improving employees' positive work attitudes and behaviors, and has been widely verified as an important concept of positive psychology theory (Avey et al., 2011; Story et al., 2013). Following this line of reasoning, the present study regards psychological capital as a potential mediator and assumes that managerial coaching indirectly influences job performance and team commitment through psychological capital. Building on OST, the current study predicts that managers/supervisors exhibiting effective coaching behaviors can promote their subordinates' positive psychological state (i.e., self-efficacy, hope, optimism, and resilience), which in turn increases employee job performance and team commitment. Therefore, the following hypotheses are developed.

H6: Psychological capital significantly mediates the relationship between managerial coaching and job performance.

H7: Psychological capital significantly mediates the relationship between managerial coaching and team commitment.

The proposed conceptual model based on the hypotheses is exhibited in Figure 1.

3 Methods

3.1 Participants and procedures

This study used a convenient sampling method by selecting the employees of local enterprises in Taipei, Tainan, Kaohsiung, and Pingtung as research subjects. Of the 126 corporate locations the researcher personally visited, 83 enterprises agreed to assist in distributing questionnaires. To avoid the common method variance (Jakobsen & Jensen, 2015), this study designed two sets of questionnaires. The employee questionnaire was filled out by employees and included questions about managerial coaching, psychological capital, and team commitment. The job performance questionnaire was filled out by the employees' direct supervisors.

A total of 821 questionnaire sets were distributed in this study. In the first wave, of the 359 sets of returning questionnaires, 341 sets of valid questionnaires were obtained and 18 sets of invalid questionnaires were deducted. In the second wave, of 372 sets of returning questionnaires, 348 sets of valid questionnaires were collected and 24 sets of invalid questionnaires were deducted. There were 689 sets of valid questionnaires in total, accounting for an effective response rate of 83.92%.

In order to check for non-response errors, the two waves of returned questionnaires were tested with four variables: gender, age, education, and seniority. Upon analysis, it was found that the *F* values of the two groups of samples were 0.01, 0.11, 0.10, and 0.36, respectively, and that the *p* values were 0.70, 0.36, 0.32, and 0.46, respectively. The *F* values of the two groups were not significant. Because the questionnaires were collected at different time points, there were no significant differences in gender, age, education, or seniority among enterprise employees.

Regarding the respondents' demographic characteristics, 50.9% of respondents were male and 49.1% were female. In terms of age, 33.5% of respondents were below 30 years old; 26.4% were 31−40 years old; 25.7% were 41−50 years old, and 14.4% were 51 years old and above. In terms of education, high school graduates accounted for 31.2%; college graduates accounted for 17.4%; university and college graduates accounted for 43.9 percent, and those who graduated from colleges and universities accounted for 7.5%. In terms of seniority, respondents with less than 3 years of work experience in the present company accounted for 39.7%; respondents with 4−6 years of work experience accounted for 19.3%; respondents with 7−9 years of work experience accounted for 14.9%; and respondents with 10 years of work experience or more accounted for 26.1%.

3.2 Measures

Except for the job performance measure, which was gained from the employees' direct supervisors, all other measures were gained from self-reported questionnaires. All variables were measured using a 5-point Likert type scale ranging from 1 (strongly disagree) to 5 (strongly agree). All scales were adopted from those in previous literature with English versions. A translation/back-translation procedure was conducted in this study to avoid misunderstanding in the Chinese versions.

Managerial coaching refers to a manager/supervisor who empowers employees by promoting self-learning, personal growth, and performance improvement (Bresser & Wilson, 2010). The present study adopted the eight items of the supervisory coaching behavior instrument developed by Ellinger et al. (2003) to measure manager/supervisor coaching behaviors. Sample items included: "To help me think through issues, my manager asks questions, rather than provide

solutions" and "My manager provides me with constructive feedback." Reliability for this scale was 0.912.

Psychological capital is conceptualized as an individual's positive psychological state of development as characterized by self-efficacy, hope, optimism, and resilience. The present study used 12 items of the PsyCap Questionnaire developed by Luthans, Avolio, Avey, & Norman (2007). Sample items included: (a) efficacy: "I feel confident in representing my work area in meetings with management" and "I feel confident contributing to discussions about the organization's strategy"; (b) hope: "If I should find myself in a jam at work, I could think of many ways to get out of it" and "At this time, I am meeting the work goals that I have set for myself"; (c) resilience: "I can be on my own, so to speak, at work if I have to" and "I usually take stressful things at work in smooth way"; and (d) optimism: "I always look on the bright side of things regarding my job" and "I'm optimistic about what will happen to me in the future as it pertains to work". Adopting the views of Youssef and Luthans (2012), this study considered psychological capital as a single construct. Reliability for this scale was 0.922.

Supervisor-rated job performance was measured using seven questions developed by William and Anderson (1991). Job performance is defined as the performance of contractually obligated work-related activities rated by an employee's direct supervisor (Babin & Boles, 1996). Sample items included: "This person performs task that are expected of him/her" and "Adequately completes assigned duties". Reliability for this scale was 0.847.

Team Commitment was based on Bishop and Scott's (2000) definition of the term, i.e., that team members not only accept the team's goals and values, but also work hard for the team and hope to continue to be part of the team. Bishop and Scott's (2000) eight-item team commitment instrument was adopted for use in the present study. Sample items included: "I find that my values and the team's values are very similar" and "I am extremely glad that I chose this team to work with over other teams." Reliability for this scale was 0.938.

4 Main Results

4.1 Measurement model analysis

This study uses confirmatory factor analysis (CFA) as the measurement model for examining the relationships between measurement variables and potential variables. Given that the discriminant index of the goodness of fit between model and observation data cannot rely on one single criterion, this study takes the recommendations of Hair et al. (2010), who suggest that a proper goodness of fit shall consider "preliminary fit criteria," "overall model fit," and "fit of internal structural of model."

4.1.1 Preliminary fit criteria

In this study, all error variances of the measurement indices are positive numbers and reach the significance level. None of the error variances exceed standard error. As one of the measurement indices, factor loadings are all between 0.6 and 0.9 and reach significance level. According to principles raised by Bagozzi and Yi (1988), the preliminary fit criteria of this study are good in general.

4.1.2 Overall model fit

This study draws on the opinions of Jöreskog and Sörbom (1984), Bagozzi and Yi (1988), and Hair et al. (2010), by taking 11 of their indices to conduct the evaluation on overall model fitness; the indices are normed chi-square, $\chi 2$/ df, goodness of fit index (GFI), adjusted goodness of fit index (AGFI), standardized root mean square residual (SRMR), root mean square error of approximation (RMSEA), normed fit index (NFI), Tucker–Lewis index (TLI), incremental fit index (IFI), and comparative fit index (CFI). Table 1 lists the overall model fit indices for this study's measurement model; the results are as follows: $\chi 2/df = 2.28$, GFI = 0.90, AGFI = 0.89 (this value is very close to 0.9 although it is smaller than 0.9), SRMR = 0.04, RMSEA = 0.04, NFI = 0.93, TLI = 0.95, IFI = 0.96, CFI = 0.96, PCFI = 0.87, and PNFI = 0.84. These analysis results show that the overall model fitness for this study's measurement model is good.

Table 1: Overall model fit indices for measurement model

Model fit indicators	χ2/ df	GFI	AGFI	SRMR	RMSEA	NFI	TLI	IFI	CFI	PCFI	PNFI
Fit results	2.28	0.90	0.89	0.04	0.04	0.93	0.95	0.96	0.96	0.87	0.84
Cut-off for good fit	1-3	≧.90	≧.90	≦.05	≦.08	≧.90	≧.90	≧.90	≧.90	>.50	>.50

Notes: χ2/df represents Normed Chi-square; GFI represents Goodness of Fit Index; AGFI represents Adjusted Goodness of Fit; SRMR represents Standardized Root Mean Square Residual; RMSEA represents Root Mean Square Error of Approximation; NFI represents Normed Fit Index; TLI represents Tucker-Lewis Index; IFI represents Incremental Fit Index; CFI represents Comparative Fit Index; PCFI represents Parsimonious Comparative-fit-index; PNFI represents Parsimonious Normed Fit Index.

4.1.3 Fit of internal structure of model

4.1.3.1 Composite reliability and convergent validity

This study adopts composite reliability (CR) and average variance explained (AVE) as the indices for examining the reliability and validity of potential variables. Using CFA, this study found that the factor loadings of potential variables all reach the significance level of parameters, and most of the factor loadings are between 0.6 and 0.9. As seen in Table 2, the CR of all variables is between 0.83 and 0.94; this agrees with the point raised by Bagozzi and Yi (1988), i.e., this index shall be equal to or larger than 0.6. Thus, all potential variables have good CR, which is indicative of the high correlation between this study's observation variables and potential variables. Regarding AVE, when AVE gets larger, its related measurement error is smaller; an ideal value of AVE is at least above 0.5. According to Fornell and Larcker (1981), if AVE is smaller than 0.5 but CR is larger than 0.6, it is suggested that potential variables also have good convergent validity (CV). In Table 2, AVE of potential variables are all between 0.46 and 0.65, while all CR are above 0.8. Thus, all potential variables of this study have good CV.

Table 2: Composite reliability & Average variance explained

Potential variables	Composite Reliability	Average Variance Explained
Managerial coaching	0.90	0.54
Psychological capital	0.92	0.49
Team commitment	0.94	0.65
Job performance	0.83	0.46

4.1.3.2 Discriminant validity

If there is no complete correlation between two potential variables, then it is said that those two potential variables are discriminable. Ping (2004) suggests that if the correlation coefficient regarding two potential variables is > |0.7|, then the estimation method of confidence interval (C.I.) shall be adopted to verify discriminant validity (DV). Hancock and Nevitt (1999) suggest a minimum number of bootstrapping; that is, 250 times when estimating path coefficient. If the C.I. of this bootstrap regarding the correlation coefficient does not include 1, it suggests that there is DV between potential variables (Torkzadeh, Koufteros, & Pflughoeft, 2003). This study employs the bootstrap method and re-samples 2000 times to compute the bootstrap bias-corrected (BC) 95% C.I. of the correlation coefficient between potential variables. Table 3 lists all the correlation coefficients between potential variables and their BC 95% C.I., among which the correlation coefficient between Managerial Coaching and Psychological Capital is 0.695 (BC 95% C.I.: [0.604, 0.772]); the correlation coefficient between Managerial Coaching and Job Performance is 0.271 (BC 95% C.I.: [0.172, 0.359]); the correlation coefficient between Managerial Coaching and Team Commitment is 0.671 (BC 95% C.I.: [0.579, 0.745]); the correlation coefficient between Psychological Capital and Job Performance is 0.335 (BC 95% C.I.: [0.249, 0.416]); the correlation coefficient between Psychological Capital and Team Commitment is 0.753 (BC 95% C.I.: [0.686, 0.806]); and the correlation coefficient between Job Performance and Team Commitment is 0.247 (BC 95% C.I.: [0.168, 0.337]). The findings show that none of the bootstrap BC 95% C.I. of the correlation coefficients of the potential variables has 1, which is indicative of the DV of all potential variables.

Table 3: Potential variable correlation matrix

Potential varibles	Managerial Coaching	Psychological capital	Job performance	Team commitment
Managerial coaching	1			
Psychological capital	0.695 ** [0.604, 0.772]	1		
Job performance	0.271** [0.172, 0.359]	0.335 ** [0.249, 0.416]	1	
Team commitment	0.671** [0.579, 0.745]	0.753 ** [0.686, 0.806]	0.247** [0.168, 0.337]	1

4.2 Structural model analysis

To further understand the cause and effect of the overall model and the goodness of fit of the research model, this study used the statistics software AMOS 25.0 for Windows to conduct SEM analysis, discuss the cause and effect of potential variables, such as managerial coaching, psychological capital, team commitment, and job performance, and then further verifies the hypotheses.

4.2.1 Assessment for SEM

SEM can be divided into two sections. The first section refers to "measurement model," which utilizes CFA to discuss the relationship between measurement variables and potential variables. The second section is "structural model," which analyzes the relationship between potential variables in theory (Hoyle & Panter, 1995). The SEM and CFA assessment approaches are similar; after conducting SEM analysis, the results of preliminary fit criteria and fit of internal structural model of the research model are the same as those of the former analysis. Moreover, this study considers the opinions of Jöreskog and Sörbom (1984), Bagozzi and Yi (1988) and Hair et al. (2010) and selects the 11 indices to conduct the assessment on overall model fit. In Table 4, the overall model fit indices are shown: $\chi 2/df = 2.65$, GFI = 0.98, AGFI = 0.96, SRMR = 0.01, RMSEA = 0.05, NFI = 0.99, TLI = 0.99, IFI = 0.99, CFI = 0.99, PCFI = 0.53, and PNFI = 0.53, suggesting a good overall model fit of the research model. These results validate the efficacy of the SEM for this research.

Table 4: Overall model fit indices for SEM

Model fit indicators	$\chi 2$/ df	GFI	AGFI	SRMR	RMSEA	NFI	TLI	IFI	CFI	PCFI	PNFI
Fit results	2.65	0.98	0.96	0.01	0.05	0.99	0.99	0.99	0.99	0.53	0.53
Cut-off for good fit	1-3	≧.90	≧.90	≦.05	≦.08	≧.90	≧.90	≧.90	≧.90	>.50	>.50

Notes: $\chi 2$/df represents Normed Chi-square; GFI represents Goodness of Fit Index; AGFI represents Adjusted Goodness of Fit; SRMR represents Standardized Root Mean Square Residual; RMSEA represents Root Mean Square Error of Approximation; NFI represents Normed Fit Index; TLI represents Tucker-Lewis Index; IFI represents Incremental Fit Index; CFI represents Comparative Fit Index; PCFI represents Parsimonious Comparative-fit-index; PNFI represents Parsimonious Normed Fit Index.

4.2.2 Hypotheses testing

Based on the influence of overall model structure on potential variables, this study conducts estimation and examination. Table 5 lists the standardized direct effect, indirect effect, and total effect between all potential variables. The standardized direct effect between potential variables is the β value of the standardized regression coefficient, and the significance of this β value and its critical ratio (C.R.) are analyzed as follows: The path analysis of Managerial Coaching → Job Performance shows that, β = 0.134 and C.R. = 2.389, suggesting that Managerial Coaching has positive impacts on Job Performance, and thus, Hypothesis 1 is supported. The path analysis of Managerial Coaching → Team Commitment shows that, β = 0.269, C.R. = 6.855, indicating that Managerial Coaching has positive impacts on Team Commitment; hence, Hypothesis 2 is supported. The path analysis of Managerial Coaching → Psychological Capital reveals that, β = 0.667, C.R. = 19.275, indicating that Managerial Coaching has positive impacts on Psychological Capital; hence, Hypothesis 3 is supported. The path analysis of Psychological Capital → Job Performance shows that, β = 0.188, C.R. = 3.358, indicating that Psychological Capital has positive impacts on Job Performance, and therefore, Hypothesis 4 is supported. The path analysis of Psychological Capital → Team Commitment shows that, β = 0.575, C.R. = 14.389, indicating that Psychological Capital has positive impacts on Team Commitment, and thus, Hypothesis 5 is supported.

Regarding the examination of mediating effects, Preacher and Hayes (2008a) suggest employing a bootstrapping BC procedure to conduct the estimation of 95% C.I., which, if it does not include 0, suggests that there is an intermediate effect.

This study employs the bootstrap method and re-samples 2000 times so as to estimate the BC 95% C.I. of indirect effects. Table 5 shows that the total effect of Managerial Coaching on Job Performance is 0.26; the direct effect of Managerial Coaching on Job Performance is 0.134; the indirect effect through Psychological Capital, the intermediate variable, is 0.667 * 0.188 = 0.126, and its BC 95% C.I. is [0.049, 0.217], which does not include 0, indicating that there is a mediating effect on the relationship between Managerial Coaching and Job Performance; hence, Hypothesis 6 is supported. In addition, the total effect of Managerial Coaching on Team Commitment is 0.652, and the direct effect of Managerial Coaching on Team Commitment is 0.269, while the indirect effect through Psychological Capital, the intermediate variable, is 0.667 * 0.575 = 0.383, and its BC 95% C.I. is [0.298, 0.474], which does not include 0, indicating that there is a mediating effect on the relationship between Managerial Coaching and Team Commitment. Thus, Hypothesis 7 is supported.

Table 5: Summary of standardized direct, indirect and total effect

Potential independent variables	Potential dependent variables	Direct effect	Indirect effect	Total effect
Managerial coaching	Job performance	0.134** [0.003, 0.250]	0.126** [0.049, 0.217]	0.26** [0.171, 0.336]
Managerial coaching	Team commitment	0.269 ** [0.143, 0.381]	0.383** [0.302, 0.478]	0.652** [0.56, 0.725]
Managerial coaching	Psychological capital	0.667** [0.578,0.744]	None	0.667** [0.578,0.744]
Psychological capital	Job performance	0.188** [0.074, 0.32]	None	0.188** [0.074, 0.32]
Psychological capital	Team commitment	0.575** [0.477, 0.679]	None	0.575** [0.477, 0.679]

Notes: ** $p < 0.01$; Total effect= Direct effect+ Indirect effect; [,] represents BC 95% C.I.

5 Discussion

According to the organizational support theory (OST; Eisenberger et al., 1986), when employees believe that organizations value their contributions and care about their well-being, the reciprocal norm (Gouldner, 1960) evokes the employee's obligation to give back to the organization by improving their job performance and organizational commitment, among other things. (Armeli et al., 1998; Arshadi, 2011; Eisenberger et al., 1986; Rhoades & Eisenberger, 2002). On the basis of the OST, this study assumes that when employees generally feel that their managers

(as representatives of the organization) demonstrate effective coaching behaviors, such as communicating and setting clear expectations, creating and promoting a supportive learning environment, and providing resources, it will lead them to enhance their job performance. The results of this study show that managerial coaching had a positive impact on job performance, a finding that is consistent with those of previous studies (Akhtar & Zia-ur-Rehman, 2017; Ellinger et al., 2003; Liu and Batt, 2010; Shanock & Eisenberg, 2006). Moreover, using team as the referent for organizational commitment and following the organizational commitment research by Mowday et al. (1979), the present study predicts that there is a positive relationship between managerial coaching and team commitment. The empirical results of this study confirm the assumption that effective managerial coaching behaviors promote employees' team commitment.

Hamlin et al. (2009) stated that coaching is a helping practice that guides employees, groups, and organizations to gain new expertise, performance, and capability to promote their personal improvement, efficiency, and growth. Although the potential influence of managerial coaching on psychological capital has not been explored by prior researchers, the result of the present study has empirically confirmed and supported the hypothesis that managerial coaching can boost the self-efficacy, hope, optimism, and resilience aspects of employee psychological capital. Furthermore, according to the conservation of resources theory (COR; Hobfoll, 1989), psychological capital can be viewed as an individual resource. Employees with positive psychological capital often expect good things to happen at work (optimism), believe that they can do their job well (self-efficacy and hope), and are less susceptible to setbacks (elasticity). The results of this study show that psychological capital had positive impacts on job performance and team commitment. These results are consistent with previous studies (Avey et al., 2011; Wang et al., 2018; Yildiz, 2017), indicating that employees with higher psychological capital will exhibit better job performance and higher team commitment.

Past research has shown that psychological capital plays a key role in improving employees' positive work attitudes and behaviors as an important concept in positive psychology theory (Avey et al., 2011; Story et al., 2013). Psychological capital was also found to be an important mediator in previous studies (Kim et al., 2013; Raza et al., 2018). The results of this study are aligned

with our earlier hypotheses that managers/supervisors displaying effective coaching behaviors can promote the positive psychological state of their subordinates (i.e., self-efficacy, hope, optimism, and resilience), which can subsequently increase employee job performance and team commitment.

6 Conclusion, Practical Implications, and Directions for Future Research

The current study contributes to the extant managerial coaching literature by exploring the effects of managerial coaching on employee job performance and team commitment and by examining the mediating effect of psychological capital. The research results indicate that managerial coaching significantly influences employee job performance and team commitment, and that psychological capital plays a significant mediating role in the relationships between managerial coaching, job performance, and team commitment.

Past research indicates that managerial coaching is an effective management intervention tool designed to help employees improve their capabilities (Peterson & Hicks, 1996). During the coaching process, managers can use a variety of coaching techniques (such as listening, asking questions, and providing feedback) to communicate organizational expectations to employees. Managers and employees collaborate to develop performance goals and implementation plans to achieve these goals. Managers continue to provide support throughout the task implementation process, encouraging employees to learn the knowledge and skills associated with individual tasks. This effective managerial coaching process is highly likely to evoke positive psychological capital for employees, thereby improving employee performance and team commitment. The abovementioned research and tools can serve as a useful reference for managers or supervisors who intend to exhibit effective managerial coaching.

The current study only examined job performance and team commitment as the work outcomes of managerial coaching. Future researchers could investigate the impact of managerial coaching on other important work outcomes, such as in-role and contextual performance as well as professional/career commitment. In addition, the psychological climate refers to individual employees' perception about their work environment (Baltes, Zhdanova and Parker, 2009). Managers who

exhibit effective coaching skills may improve the perceived psychological climate for employees. Therefore, the present study suggests that the relationships among managerial coaching, psychological climate, and work outcomes (e.g., in-role and contextual performance and professional/career commitment, etc.) are areas worth exploring in future research.

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