

Article

The Influence of Supervisor's Transformational Leadership and Followers' Occupational Well-Being: A Dual Pathway Model from a Conservation of Resources Theory

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Abstract: Occupational well-being is optimal psychological functioning and experience in the workplace. This study examined the role of opportunities for career development as a mechanism that links supervisor's transformational leadership and subordinates' occupational well-being manifested by work engagement. Specifically, drawing on conservation of resources theory (COR), we developed a dual pathway model in which opportunities for promotion and for professional development were posited as two important mediators in the relationship between transformational leadership and work engagement. The hypotheses were tested with a sample of 215 Chinese civil servants. The results of structural equation modeling showed that a supervisor's transformational leadership was positively related to subordinates' work engagement. This association was partially mediated by opportunities for professional development and not mediated by opportunities for promotion. Implications for theory and practice are discussed.

Keywords: Transformational leadership; occupational well-being; work engagement; opportunities for career development; dual pathway model

1 Introduction

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Well-being is pursued by human beings. In the workplace, there is extensive consensus that employees with high levels of well-being will achieve healthier and good quality of life, and higher productivity and job performance [1]. Thus, especially, since the rise of positive occupational health psychology, how to enhance employees' well-being has been one of the topics that gets the most attention in the management researchers and practitioners. As an important aspects of employee well-being, work engagement has been found to be beneficial for employees themselves and their employing organizations. At employee levels, empirical research has found that employees with high levels of work engagement report greater job satisfaction, affective commitment, job performance, health, and intentions to stay at the work setting [2,3]. At organizational levels, Harter et al.'s [4] meta-analysis revealed that work engagement was positively associated with customer satisfaction and loyalty, profitability, productivity, turnover, and safety. Barrick et al. [5] demonstrated that work engagement was positively related to the return on assets (ROA). Altogether, enhancing employee engagement is viewed as a key to creating and sustaining organizational competitive advantage in management practice [6,7].

In view of the dyadic relationship between leaders and employees, researchers recently began to investigate the role of the leader in fostering followers' work engagement. Generally, there are two pathways used to examine supervisors' role in enhancing followers' engagement in their jobs. One



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research stream emphasizes the influence of supervisors' own work engagement [8-10]. Another important stream investigates the role of one's leadership style, and transformational leadership has been found to be closely related to employees' work engagement [11].

Recently, researchers have begun to attempt to unlock the black box between transformational leadership and work engagement. In general, the mediating roles of personal resources—including meaning in work, positive affectivity, identification, self-efficacy, and optimism in the relationship between transformational leadership—have been studied extensively [12-17]. However, opportunities to enhance or expand one's career are also resources highly valued by individuals [18], and, in fact, are proximal antecedents of work engagement [19-21]. Transformational leadership not only provides direction, but also creates career development opportunities for employees [22]. Despite these linkages, few studies to date have examined the mediating role of career opportunities as job resources in the relationship between supervisors' transformational leadership and subordinates' work engagement.

According to Schein's [23] cone-shaped career development model, vertical mobility along the organizational hierarchy and opportunities for professional development therein are the two most important ways to advance individuals' careers. Some empirical studies [24,25] have also found that opportunities for promotion and challenging job content were two of the most important career expectations and needs of employees. Opportunities for promotion are reflective of the likelihood of receiving further vertical mobility in a given organization. Opportunities for professional development pertain to the possibility of learning new things and attaining personal growth within the work setting [26]. Opportunities for promotion serve as an extrinsic motivator, while opportunities for professional development increase intrinsic motivation [27]. In the current research, we integrate the vertical mobility-referenced mechanism representative of the extrinsic motivational process and professional development-referenced mechanism representative of the intrinsic motivational process, through which a supervisor's transformational leadership is related to subordinates' work engagement. Our research model is shown in Fig. 1. With this dual pathway model, our objective was to extend and deepen the understanding of the mechanisms underlying the relationship between a supervisor's transformational leadership and subordinates' work engagement.

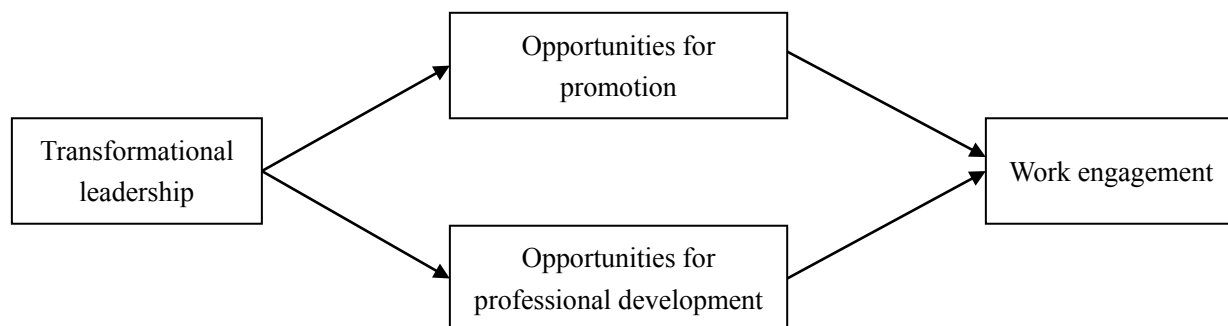


Figure 1: The proposed research model

2 Theory Background and Hypothesis Development

2.1 Conservation of Resources Theory

Conservation of resources theory (COR) is a stress and motivational theory stating that “people strive to retain, protect, and build resources and that what is threatening to them is the potential or actual loss of these valued resources” [28]. For individuals, resources are created across the life span within social contexts. At work and organizational settings, resource gain relies in large part on the collective pool of resources available within that organizational ecology [29]. As Hobfoll notes, “organizational support, stability, and safety are all aspects of resource caravan-creating and sustaining organizational ecologies” [29]. These ecologies provide individuals with job and personal resources. According to COR

theory, transformational leadership is one of several important aspects of resource caravan-creating and sustaining organizational ecologies. Further, it is able to provide employees with valued job resources such as career opportunities which, in turn, motivate them to engage in their work [20,21,30-32].

2.2 Hypothesis Development

The direct effects of supervisors' transformational leadership on subordinates' work engagement. Transformational leadership is widely defined as 'going beyond exchanging inducements for desired performance by developing, intellectually stimulating, and inspiring followers to transcend their own self-interests for a higher collective purpose, mission, or vision' [33]. Typically, transformational leadership is characterized by idealized influence (the degree to which leaders behave in charismatic ways that cause their followers to identify with them), inspirational motivation (a behavior wherein leaders articulate visions that are appealing to followers), intellectual stimulation (a behavior that increases the followers' awareness of problems and influences them to view problems from a new perspective), and individualized consideration (the degree to which leaders respect followers and are concerned about their personal feelings and needs [34-36]) which create motivational work environments for followers. In other words, transformational leadership optimizes working conditions for work engagement. The positive relationship between transformational leadership and work engagement is supported by empirical studies conducted among employees working in firms [16,17,37], teachers [38], firefighters [13], and nurses [15,39]. Consistent with previous studies, we expected that the positive relationship between transformational leadership and work engagement could be observed in our sample (i.e., civil servants). Hence, we hypothesize that:

Hypothesis 1: Transformational leadership is positively related to work engagement.

The mediating role of opportunities for promotion. As an important job resource, opportunities for promotion have the potential to motivate employees to engage more fully in their work for career goal achievement [21,31]. Regarding the relationship between transformational leadership and opportunities for promotion, we argue that a supervisor's transformational leadership can improve the perceptions, for employees, of opportunities for promotion within the organization. There are several reasons for this. First, transformational leadership communicates an appealing vision of the future, often using symbols to articulate this vision. Upon receiving such communications, followers are led to be optimistic about their own prospects. Individuals with high levels of positive outlook regarding their career potential view new career opportunities as realistic and as having positive expectations about the achievement of favorable career outcomes such as promotion. Second, transformational leadership acknowledges and is sensitive to followers' need to grow and develop themselves, so "supervisory career mentoring may be stronger when transformational leadership behaviors are present" [40]. Career mentoring, especially instrumental support, is helpful to employees' objective career success (i.e., salary and promotion [41]). Thus, employees will have a positive belief that there are opportunities for promotion ahead of them in the organization. We argued earlier that perception of opportunities for promotion will motivate employees to put greater efforts into their job. Accordingly, we argue that transformational leadership fosters followers' work engagement through such motivational processes. Additionally, given that personal resources can also explain the relationship between transformational leadership and work engagement [12-17], we expect that opportunities for promotion partially mediate the relationship between a supervisor's transformational leadership and subordinates' work engagement. Thus, we hypothesize that:

Hypothesis 2: Opportunities for promotion partially mediate the positive relationship between transformational leadership and work engagement, such that there is a positive indirect effect of transformational leadership on work engagement via opportunities for promotion.

The mediating role of opportunities for professional development. Opportunities for professional development refer to the possibility of learning new things as well as experiencing personal growth in the job. As important job resources, opportunities for professional development have intrinsic motivating potential, encouraging employees to fully engage in their work to achieve their career goals [21,31,42]. Longitudinal and diary studies have suggested that opportunities for professional development positively

predict work engagement [21,43,44]. In terms of transformational leadership and opportunities for professional development, Shamir et al. [45] stated that transformational leadership could promote subordinates' development of new skills in several ways. First, transformational leadership challenges the subordinate to see problems from a different perspective and stimulates him/her to think innovatively by means of intellectual stimulation. Consequently, transformational leaders provide employees with opportunities to gain competencies and experience personal development [46]. Second, as Bass [47] asserts, transformational leadership involves career coaching and mentoring. As suggested by the mentor literature [48], career mentoring provides learning opportunities for protégés. Through career mentoring, transformational leaders provide their subordinates with opportunities for learning new things and developing new skills. Third, transformational leadership involves encouraging followers to delegate challenging tasks and takes on more responsibilities [47]. In this way, transformational leaders provide opportunities for learning new things and developing new skills. Similarly, given that personal resources can also explain the relationship between transformational leadership and work engagement, we expect that opportunities for professional development as a job resource partially mediate supervisors' transformational leadership and employees' work engagement. Thus, we hypothesize that:

Hypothesis 3: *Opportunities for professional development partially mediate the positive relationship between transformational leadership and work engagement, such that there will be a positive indirect effect of transformational leadership on work engagement through opportunities for professional development.*

3 Method

3.1 Procedure and Participants

We collected data among civil servants working in governmental departments. We distributed surveys to 280 full-time civil servants; 239 questionnaires via the online data collection system were returned. Five cases were excluded due to a large amount of missing data or identical responses to a large number of consecutive questions. The final sample contained 215 participants; The valid response rate was 76.79%. Of this sample, 120 persons (55.81%) were male and 102 (47.44%) were married. For education, 40 (18.60%) participants held an associate's degree, 133 (61.65%) held a bachelor's degree, and 42 (19.53%) held a master's degree. Regarding age, 45 (20.93%) were 25 years old and below, 142 (66.05%) were 25–35 years old, 20 (9.30%) were 36–45 years old, 5 (2.32%) were 46–55 years old, and 3 (1.40%) were 56 years old. For years of work, 96 (44.65%) had 5 years or below, 76 (35.35%) had 6–10 years, 26 (12.09%) had 11–15 years, 12 (5.58%) had 16–20 years, and 5 (2.33%) had 21 years or above.

3.2 Instruments

Transformational leadership. An eight-item transformational leadership questionnaire was used to assess a supervisor's transformational leadership behaviors [49]. The eight items were taken from the Multifactor Leadership Questionnaire (MLQ [34]) to fit the Chinese context [49]. In this study, participants were asked to rate their direct supervisor's leadership behaviors on a 6-point Likert scale, ranging from 1 (*totally disagree*) to 6 (*totally agree*). A sample item is 'My supervisor articulates a compelling vision of the future.' In our sample, Cronbach's α for the scale was 0.85.

Opportunities for promotion. The two positive wording items of hierarchical plateau scale developed by Xie et al. [50] was used to measure opportunities for promotion. The two positively worded items are: "I have opportunities for promotion from within the organization." "I am likely to obtain a much higher position in the organization where I currently work." Participants were asked to assess their perceptions of opportunities for receiving further promotions in the current organization with a 6-point Likert scale, ranging from 1 (*totally disagree*) to 6 (*totally agree*). In our sample, Cronbach's α for the scale was 0.63.

Opportunities for professional development. The five positively worded items of the job content plateau scale developed by Xie et al. [50] was used to measure perceived opportunities of professional development in one's current organization. The five positively worded items are "The current job can

further enrich my job skills.” “I can still learn something new in my current job.” “I always have access to new things related to my job.” “The current job can further broaden my horizons.” “My job requires me to keep acquiring new knowledge.” Participants were asked to respond on a 6-point Likert scale from 1 (totally disagree) to 6 (totally agree). In our sample, the Cronbach’s α for the scale was 0.84.

Work engagement. The 9-item Utrecht Work Engagement Scale (UWES-9 [51]) was used to assess the level of participants’ work engagement. The UWES-9 is comprised of three subscales: vigor, dedication, and absorption. Each subscale consists of three items, and participants responded on a 6-point Likert scale ranging from 1 (*never*) to 6 (*always*). Example items include “At my job, I feel strong and vigorous” (vigor), “I am enthusiastic about my job” (dedication), and “I am immersed in my work” (absorption). In our sample, Cronbach’s α for UWES-9 was 0.92.

Control variables. Previous studies have shown that age, organizational tenure, gender, educational level, marital status could influence work engagement [3,51] so the age, organizational tenure ($1 = 5$ years and low; $2 = 6-10$ years $3 = 11-15$ years, $4 = 16-20$ years, $5 = 21$ years and above), gender ($1 =$ male; $2 =$ female), and educational level ($1 =$ associate; $2 =$ bachelor; $3 =$ master and above), marital status ($1 =$ unmarried; $2 =$ married) of participants were considered as control variables.

4 Results

4.1 Preliminary Analyses

First, the normality of the four variables of interest was inspected by examining coefficients. Inspection revealed that all four variables were normally distributed, with skewness ranging from -0.56 to -0.29 and kurtosis ranging from -0.32 to 0.29.

Second, in order to assess the distinctiveness of the four core variables, confirmatory factor analysis (CFA) with Mplus 7.4 [52] was carried out. In CFA, the core variables were combined to estimate the fit of the model changed. The results showed the hypothesized four-factor model, distinguishing transformational leadership, opportunities for promotion, opportunities for professional development, and work engagement fitted better into the data ($\chi^2 = 480.81$, $df = 246$, $CFI = 0.88$, $TLI = 0.86$, $RMSEA = 0.07$; $SRMR = 0.06$) than the three-factor model in which transformational leadership and work engagement were combined into one factor ($\chi^2 = 663.134$, $df = 249$, $CFI = 0.83$, $TLI = 0.82$, $RMSEA = 0.09$; $SRMR = 0.08$), or the alternative three-factor model in which opportunities for promotion and opportunities for professional development were combined into one factor ($\chi^2 = 618.44$, $df = 249$, $CFI = 0.85$, $TLI = 0.83$, $RMSEA = 0.08$; $SRMR = 0.06$), and the two-factor model in which transformational leadership, opportunities for promotion and opportunities for professional development were combined into one factor ($\chi^2 = 937.20$, $df = 251$, $CFI = 0.73$, $TLI = 0.70$, $RMSEA = 0.11$; $SRMR = 0.10$), and the one-factor model with all variables loaded on a single factor ($\chi^2 = 1237.31$, $df = 252$, $CFI = 0.61$, $TLI = 0.57$, $RMSEA = 0.14$; $SRMR = 0.12$).

Finally, Harman’s single-factor test was used to estimate the potential common method variance. The results of an exploratory factor analysis on all items showed that five factors with eigenvalues greater than one were extracted and no general factor was present in the unrotated factor structure, with Factor 1 accounting for 34.76% of the variance in the four core variables. Thus, common method bias was not of great concern. In short, the findings of preliminary data analyses showed that the participants were able to differentiate among the four core variables and common method bias was not serious in the study.

4.2 Descriptive Statistics and Correlations

Tab. 1 showed the means and standard deviations of study variables and correlations between them. As shown in Tab. 1, the respondents reported moderate levels of transformational leadership ($M = 4.41$, $SD = 0.82$), opportunities for promotion ($M = 4.17$, $SD = 1.12$), opportunities for professional development ($M = 4.25$, $SD = 1.02$), and work engagement ($M = 3.96$, $SD = 0.89$). Transformational leadership positively correlated with work engagement ($r = 0.39$, $p < 0.001$), opportunities for promotion ($r = 0.33$, $p < 0.001$), and opportunities for professional development ($r = 0.34$, $p < 0.001$). Meanwhile,

opportunities for promotion ($r = 0.33, p < 0.001$) and opportunities for professional development ($r = 0.53, p < 0.001$) also positively correlated with work engagement. These results provide preliminary support for Hypotheses 1 to 3.

Table 1: Descriptive statistics and inter-correlations among variables of interest

	<i>M</i>	<i>SD</i>	1	2	3
1 Transformational leadership	4.41	0.82	NA		
2 Opportunities for promotion	4.17	1.12	0.33***	NA	
3 Opportunities for professional development	4.25	1.03	0.34***	0.49***	NA
4 Work engagement	3.96	0.89	0.39***	0.33***	0.53***

Note. N = 215; Correlation is significant at the .001 level (2-tailed).

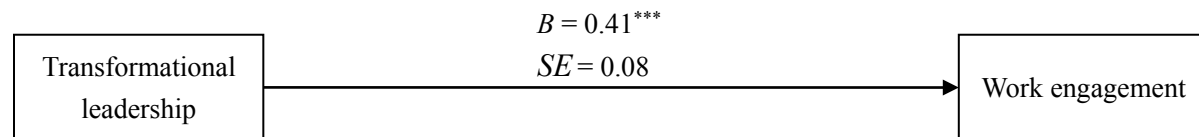
4.3 Hypothesis Testing

The regression analysis with Mplus 7.4 was used to test Hypothesis 1. In order to simultaneously test multiple indirect effects, asymptotic and resampling strategies for multiple mediator models [53] were performed. The results are summarized in Fig. 2.

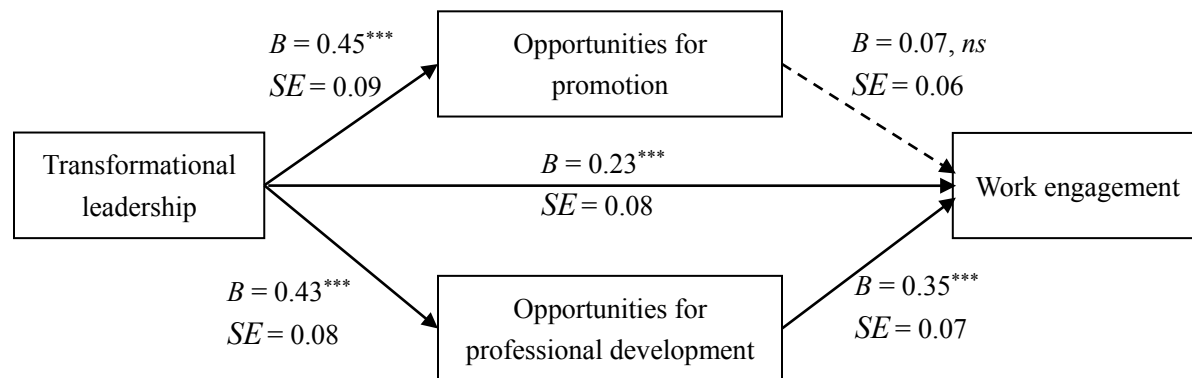
Hypothesis 1 argued that a leader's transformational leadership is positively related to subordinates' work engagement. Fig. 2 shows that transformational leadership was positively associated with work engagement ($B = 0.41, SE = 0.08, p < 0.001$). Thus, hypothesis 1 was supported.

Hypothesis 2 proposed that opportunities for promotion mediate the relationship between transformational leadership and work engagement. As shown in Fig. 2, transformational leadership was positively related to opportunities for promotion ($B = 0.45, SE = 0.09, p < 0.001$). However, opportunities for promotion were not associated with work engagement ($B = 0.07, SE = 0.06, p > 0.05$) when opportunities for professional development were controlled for. The 95% confidence interval for the indirect effect was $[-0.02, 0.08]$, with an average of 0.03 including 0. Thus, Hypothesis 2 was not supported.

Hypothesis 3 stated that opportunities mediate the relationship between transformational leadership and work engagement. As shown in Fig. 2, transformational leadership was positively related to opportunities for professional development ($B = 0.43, SE = 0.08, p < 0.001$). Meanwhile, opportunities for professional development was positively associated with work engagement ($B = 0.35, SE = 0.07, p < 0.001$) when opportunities for promotion was controlled for. The 95% confidence interval for the indirect effect was $[0.08, 0.23]$, with an average of 0.15, and did not include 0. In addition, the direct effect of transformational leadership on work engagement was still significant ($B = 0.23, SE = 0.08, p < 0.001$) when the two mediators were included in the model. According to Barron et al. [54], opportunities for professional development partially mediated the association between transformational leadership and work engagement. Hypothesis 3 was supported.



a) Direct Pathway



b) Indirect Pathway

Note: Age, organizational tenure, gender, education and marital status were controlled for; Unstandardized path coefficients were reported; $^{***}p < 0.001$.

Figure 2: Results of hypotheses testing

5 Discussion

The focus of this study was to investigate the role of job resources in explaining the relationship between a leader's transformational leadership and his/her subordinates' work engagement. Based on COR theory, we developed a dual-path model and posited opportunities for promotion and professional development as two parallel mediators in the relationship between transformational leadership and work engagement. The results showed that a supervisor's transformational leadership was positively related to subordinates' work engagement. Further the positive association was partially mediated by opportunities for professional development. However, the positive association was not mediated by opportunities for promotion. Statistically, the result shows the advantage of specifying and testing a single multiple mediation model in lieu of separate simple mediation models, because 'when multiple putative mediators are entertained in a multiple mediation model, the likelihood of parameter bias due to omitted variables is reduced' [53]. In fact, when separate simple mediation models were tested, both opportunities for promotion and for professional development partially mediated the positive relationship between transformational leadership and work engagement. Based on the results of simple mediation models, we may draw the biased conclusion. Theoretically, the result is reasonable. On the one hand, opportunities for professional development are intrinsic motivational inducers and opportunities for promotion are extrinsic motivational inducers [27]. Cross-sectional and experimental studies [55,56] have shown that extrinsic motivation was not significantly related to personal engagement when intrinsic motivation was included in the model. On the other hand, in the era of boundaryless careers, skill development or knowing-how competencies are the key for employability, job security, and career success [57,58]. Thus, opportunities for professional development may be a more important job motivator, and have more potential to engage

employees at work, than opportunities for promotion.

5.1 Theoretical Implications

The present study makes important contributions in several ways. First, the present study replicates and expands previous research on supervisors' transformational leadership and subordinates' work engagement. Despite recent work on transformational leadership and engagement, Schmitt et al. [59] stated that "while there is some research supporting this proposed linkage between transformational leadership and work engagement ... the available body of empirical evidence is still relatively limited". In the extant literature, the positive relationship between transformational leadership and work engagement has been observed among employees working in profit organizations [37,16,17], teachers [38], firefighters [13], and nurses [15,39]. Through broadening the populations sampled, our research supported the theorized positive linkage of supervisors' transformational leadership to their subordinates' work engagement and validated its generalizability. Second, this study extends the understanding of the relationship between transformational leadership and work engagement. Previous research showed that personal resources, such as followers' self-efficacy and optimism [16], link leader's transformational leadership to followers' work engagement. To the best of our knowledge, the present study is one of the first to investigate whether the leader's transformational leadership affects followers' work engagement through increasing followers' job resources in the workplace. In a similar vein, a recent study by Hawkes et al. [37] also explored the mediating role of job resources in the relationship between supervisors' transformational leadership and followers' work engagement. Hawkes et al. [37] proposed and showed that transformational leadership is related to followers' work engagement via three job resources (a) influence at work, (b) supervisor support, and (c) recognition of one's efforts. The present study contributes further in that it examines the newly delineated psychological mechanism of the relationship between transformational leadership and work engagement. Moreover, Hawkes et al. [37] did not distinguish among influence at work, supervisor support, and recognition of one's efforts. They examined the mediating role of a global measure of these three factors in the transformational leadership-work engagement association. As far as we know, the present study is the first to separately examine the mediating role of opportunities for promotion and professional development in the association between a supervisor's transformational leadership and employees' work engagement.

Finally, the present study provides implications for extending the antecedents of career plateaus. To date, no research has examined the role of transformational leadership in shaping employees' perceptions of career plateau. Given transformational leaders' four characteristics (idealized influence, inspirational motivation, individual consideration, and intellectual stimulation), it is likely that such leaders are able to reduce their subordinates' perceptions of career plateaus in their given organization.

5.2 Practical Implications

The results of this study illustrate that transformational leadership is positively related to occupational well-being indicated by work engagement. It seems that the transformational style of the supervisor has much influence on employees' motivation to be engaged at work. Combined with the other benefits to both employees and the employing organization [60], it is recommended that transformational leadership should be integrated into leadership development programs. Previous research [22,61] has shown that transformational leadership is not a trait and malleable. In an experimental study, Barling et al. [61] revealed that subordinates perceived leaders who underwent transformational leadership training than subordinates of managers who received no training.

Additionally, we found that the positive association between transformational leadership and work engagement is partially mediated by opportunities for professional development but not by opportunities for promotion. It seems that the former is more effective in motivating and maintaining employees' work engagement than the latter. This is good news for leaders, as it suggests they can motivate employees to be engaged even if avenues for promotion do not exist. Thus, employers, supervisors, and managers are advised to display transformational leadership behaviors and encourage employees to assume challenging

job tasks. They also should put efforts into employee training.

5.3 Limitations and Future Directions

The present study has several limitations that suggest avenues for further research. First, this study was cross-sectional. Therefore, we should be cautious in causal inferences from our results. Drawing on COR theory, we hypothesized and found that leader's transformational leadership created opportunities for professional development, which in turn motivated employees to be engaged in work. However, there may be alternative explanations for the findings. For example, it is possible that employees with high levels of work engagement are treated by a supervisor in the ways of transformational leadership behaviors, which in turn creates more opportunities for professional development. Consequently, longitudinal research or a time-lagged design is recommended to replicate the findings of this study. Second, we did not examine the boundary conditions for the dual-pathway model. The theory of leader-member exchange states that leaders differentially treat subordinates according to the quality of leader-member exchange [62]. Thus, it is reasonable to hypothesize that the relationship between a supervisor's transformational leadership and subordinates' work engagement via opportunities for professional development is moderated by LMX at the first stage. Another important moderator involves criteria for career success. Career success criteria represent the ultimate career goals that employees wish to pursue. According to the study of Zhou et al. [63], criteria of career success can be categorized into external compensation, intrinsic fulfillment, and work-life balance. Extrinsic career success criteria may positively moderate the relationship between opportunities for promotion and work engagement, such that a positive association between these factors will be observed among employees who value extrinsic rewards such as monetary, power, and continuous promotion. Intrinsic fulfillment may positively moderate the association between opportunities for professional development and work engagement, such that the positive association between opportunities for professional development and work engagement is stronger for employees whose career goals are to fully utilize their own talents and realize ideality in their careers.

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