Effect of Leaders’ Work Engagement on Followers’ Subjective Career Success: A Multi-Level Model

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[Abstract] Using a sample of 68 work teams (68 work team leaders and their 380 followers) in 14 schools, this study investigated the relationships between work engagement (leaders’ and followers’) and subjective career success. Structural equation model and hierarchical linear model were applied to analyze the survey data. Results revealed that leaders’ work engagement positively influenced their followers’ subjective career success, and this relationship was mediated by the followers’ work engagement. Leaders’ work engagement acted as a moderator in the relationship between followers’ work engagement and subjective career success. Implications of these findings, limitations, and directions for future research were discussed in the final part of the paper.

[Keywords] subjective career success; work engagement; work team

Introduction

Career success is the goal that every employee eagerly pursues. Research on career success has received increasing attention in the field of psychology and organizational science in recent years (De Vos et al., 2011; Ramaswami et al., 2010; Spurk, & Abele, 2014; Stumpf, & Tymon Jr, 2012). Based on a meta-analysis, Ng et al. (2005) reviewed 4 categories of predictors of career success. As an important human capital variable, work engagement is also a predictor of success. Considerable evidence has proved the impact of work engagement on career success. Demeroutiet al. (2001b) found that work engagement was positively correlated to subjective career success. Ng’s meta-analysis indicated that work engagement could predict objective career success and was positively correlated to subjective career success (Ng et al., 2005).

However, most researches considered objective career success and subjective career success together. In fact, the impact mechanism of the impact factors on subjective career success may be more complex. When study methodology was concerned, the exist researches tended to investigate from a more individual perspective (individual level) than team perspective (multilevel), in exploring the work team’s impact on individuals’ success. Based on the literature review and research findings, this study intends to examine the influence of team leaders’ work engagement on their followers’ subjective career success by means of HLM.

Career Success

Career success is defined as the accumulated positive psychological and work outcomes resulting from individual work experiences (Seibert et al., 1999). Researchers distinguish subjective career success from objective career success. The subjective career is only experienced directly by the person engaged in her or his career (Hogan et al., 2013; Judgeet al., 2010; Ng, & Feldman, 2014).

From Work Engagement to Career Success

Work engagement is an active, positive work-related state that is characterized by vigor, dedication, and absorption (Bakker, 2011; Bakker, & Leiter, 2010; Schaufeli, & Bakker, 2010).

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The contest-mobility perspective of career success suggests that victory comes to those who demonstrate the greatest accomplishments. One can only get ahead on the basis of one’s own abilities and contributions (De Vos et al., 2011; Milleret, 2005; Ng et al., 2005). The impact of work engagement on career success was proved in empirical studies. For example, Demerouti et al. (2001a) and Ng’s meta-analysis (Ng, et al., 2005) found that work engagement was positively correlated to subjective career success. Bakker, et al. (2008) shown that work engagement is predictive of job performance and client satisfaction. Based on the theories and studies above, we propose hypothesis 1: Work engagement positively affects subjective career success.

From Leaders’ Work engagement to Followers’ Work Engagement

A work team consists of team members who have the same commitment and responsibility to achieve one goal or accomplish one task (Hackman, 1987; Hart, & Mcleod, 2003; Kozlowski& Bell, 2003). The leader’s psychological and work state may influence followers’ work attitude and behavior in a formal or informal way.

Work engagement is conceptualized to be a state with such important characteristics as openness to development and contagion effect. In other words, work engagement in the leader-follower relationship and follower-follower relationship could easily impact on each other within interpersonal interactions (Bakker, & Xanthopoulou, 2009; Schaufeli, et al., 2009; Zhu, et al., 2009).

Leaders who are more engaged in work tend to be more hopeful, more motivated to success and would like to set up more challenging goal. Leaders’ such characteristics and behavior will easily infect their followers and improve their work engagement (Fredrickson, 2003; Johnson, 2009; Avolio, et al., 2004). In addition, leaders are always regarded as role models of their followers regarding what attitude and behavior are appropriate. If leaders display elevated levels of work engagement, his team will be willing to observe, and perceive positive work results of leaders’ work engagement. Therefore, it may help followers be more engaged in their work. (Schaufeli, et al., 2009; Avolio, et al., 2004). Therefore, in this study, we propose hypothesis 2: Leaders’ work engagement positively affects their followers’ work engagement.

From Leaders’ Work Engagement to Followers’ Subjective Career success: Mediation of Followers’ Work Engagement

Engaged leaders play a vital role in a team. Leaders who are more engaged in their work tend to perform better. For example, Xanthopoulou, et al. (2009) indicated that leaders’ work engagement was positively correlated to the financial return. Moreover, engaged leaders were more loyal to their organizations and often experience better psychological and physical health (Halbesleben, & Wheeler, 2008; Schaufeli, et al., 2009; Bakker, et al., 2008; Demerouti, et al., 2001a). Finally, leaders who are more engaged transfer their engagement to others, including their followers, and make others also be more engaged (Bakker, & Xanthopoulou, 2009).

Even the important impact of leaders’ work engagement, followers’ work engagement is also necessary for followers’ career success. It’s not likely for a team member to achieve career success without his own engagement. According to the evidence above, we propose hypothesis 3: Followers’ work engagement is a mediator between leaders’ work engagement and their followers’ subjective career success.

Leaders’ work engagement act as a cross-level moderator between followers’ work engagement and their subjective career success

Career success is affected by individual factors and organizational factors at the same time (Hogan, et al., 2013; Judge, et al., 2010; Seibert, et al., 1999). As an organizational factor, leaders’ work engagement not only serves directly improve their followers’ work engagement and then promote followers’ career success, but also functions as positive background factor in the work team, exerting an influence on the relationship between followers’ work engagement and career success.

According to the person-situation interaction theory (Judge, & Zapata, 2015; Magnusson, &
Magnusson, 2013; Troy, et al., 2013; Zettler, & Hilbig, 2010), when work teams have the same character as members, the effect of individual characters on outcomes will be strengthened.

We are curious about if leaders’ high work engagement will strengthen the relationship between followers’ work engagement and their subjective career success or not.

Thus, we propose the following hypothesis:

Hypothesis 4: Leaders’ work engagement positively moderates the effect of followers’ work engagement on their subjective career success.

Method

Participants

Participants for this study were work teams from 14 schools in Guang Dong Province. A total of 480 questionnaires are distributed and 448 valid questionnaires from both leaders and team members have been collected, with 97.4% efficiency. We collected valid data from totally 68 work teams, with 7 team members each team on average. In every work team, each employee has been working with his/her direct supervisor for at least one year, with average of 7.7 years. Of all the participants, 17% are male and 83% female. The age of the participants ranges from 21 to more than 50 years old, with 35 on average. The length of teaching of all the participants averaged 13.5 years.

Variables Measure

Subjective Career Success. We adopted 5-item scale, the Career Satisfaction Scale (Greenhaus, et al., 1990) to measure followers’ subjective career success. Based on the results of confirmatory factor analysis, one item whose factor loading was lower than 0.4 was deleted and the other 4 items whose factor loading were all over 0.5 were maintained. After deletion, the Cronbach’s alpha coefficient of the scale was 0.67.

Work Engagement. We adopted the Utrecht Work Engagement Scale (UWES) from Schaufeli, et al. (2002) to measure participants’ work engagement. The 17-item scale contained three dimensions – vigor, dedication and absorption. After confirmatory factor analysis, one item whose factor loading lower than 0.4 were deleted and 16 items were adopted in this study. The Cronbach’s alpha coefficient of three dimensions of leaders’ work engagement were 0.85, 0.88 and 0.80; and that of followers’ work engagement were 0.88, 0.87 and 0.85.

Measurements and Data Analysis

This study sent independent self-reported questionnaires to both team leaders and followers respectively. The questionnaires for the leaders are subjective career success measurement while those for followers contained both subjective career success scale and work engagement scale. In terms of questionnaires for followers, we adopted Harman’s one-factor measurement to examine common method variance (Malhotra, et al., 2006). The goodness of fit index of one-factor model and four-factor model were shown respectively as follows: $\chi^2=934.38$, $df=170$, RMSEA=0.12, NNFI=0.94, CFI=0.94, SRMR=0.068 (one-factor); $\chi^2=560.39$, $df=164$, RMSEA=0.08, NNFI=0.97, CFI=0.97, SRMR=0.055 (four-factor). The fact that four-factor model fit was better than one-factor model revealed that homologous coefficient variance was possible in this study.

SPSS 22.0 was used in our study to perform descriptive statistics and reliability analysis. We used LISREL 8.70 to analyze confirmatory factor and HLM 6.02 to build a cross-level model, to test research hypotheses. EM algorithm was adopted to compensate the missing data.
Results

Cross-Group Measurement Invariance Test

Since work engagement measurement examined both team leaders and team members, it is necessary to ensure the similarity in the structure of measuring tool in these two groups. By means of multi-group confirmatory factor analysis methodology (Hau et al., 2004), we could see that $\Delta \chi^2 (\Delta df)$ of the model was not significant and goodness of fit index was of no obvious deterioration although error variance, factor loading, factor variance, and factor covariance were controlled step by step. Therefore, such work engagement measurement in our study was applicable for leaders and followers.

Table 1
Cross-Group Measurement Invariance of Work Engagement

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\chi^2/df$</th>
<th>$\Delta \chi^2/df$</th>
<th>$\Delta \chi^2/df$</th>
<th>RMESA</th>
<th>NNFI</th>
<th>CFI</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>M0_L</td>
<td>180.58</td>
<td>101</td>
<td>1.79</td>
<td>0.00</td>
<td>0.00</td>
<td>0.94</td>
<td>0.95</td>
<td>0.085</td>
<td></td>
</tr>
<tr>
<td>M0_F</td>
<td>431.51</td>
<td>101</td>
<td>4.27</td>
<td>0.00</td>
<td>0.00</td>
<td>0.94</td>
<td>0.97</td>
<td>0.056</td>
<td></td>
</tr>
<tr>
<td>M1</td>
<td>612.09</td>
<td>202</td>
<td>3.03</td>
<td>0.00</td>
<td>0.00</td>
<td>0.94</td>
<td>0.97</td>
<td>0.056</td>
<td></td>
</tr>
<tr>
<td>M2</td>
<td>622.33</td>
<td>215</td>
<td>2.89</td>
<td>10.24(13)</td>
<td>0.79</td>
<td>0.96</td>
<td>0.97</td>
<td>0.058</td>
<td></td>
</tr>
<tr>
<td>M3</td>
<td>627.22</td>
<td>216</td>
<td>2.90</td>
<td>4.89(1)</td>
<td>4.89</td>
<td>0.96</td>
<td>0.97</td>
<td>0.066</td>
<td></td>
</tr>
<tr>
<td>M4</td>
<td>667.52</td>
<td>231</td>
<td>2.89</td>
<td>40.30(15)</td>
<td>2.69</td>
<td>0.96</td>
<td>0.97</td>
<td>0.058</td>
<td></td>
</tr>
<tr>
<td>M5</td>
<td>681.06</td>
<td>237</td>
<td>2.87</td>
<td>13.54(6)</td>
<td>2.26</td>
<td>0.96</td>
<td>0.96</td>
<td>0.070</td>
<td></td>
</tr>
</tbody>
</table>

Descriptive Statistics

Results of descriptive statistics for the study variables could be seen in table 2.

Table 2
Descriptive Statistics for the Study Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Leaders’ work engagement</td>
<td>4.02</td>
<td>0.62</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Sex</td>
<td>0.16</td>
<td>0.37</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Age</td>
<td>34.10</td>
<td>8.74</td>
<td>—</td>
<td></td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Educational background</td>
<td>3.45</td>
<td>0.62</td>
<td>—</td>
<td>0.01</td>
<td>-0.41**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Teaching age</td>
<td>12.43</td>
<td>9.44</td>
<td>—</td>
<td>0.14**</td>
<td>0.94***</td>
<td>-0.38***</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Years in this school</td>
<td>6.98</td>
<td>7.33</td>
<td>—</td>
<td>0.10*</td>
<td>0.73**</td>
<td>-0.32**</td>
<td>0.72**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Income</td>
<td>2.23</td>
<td>0.73</td>
<td>—</td>
<td>0.25**</td>
<td>0.51***</td>
<td>0.05</td>
<td>0.53**</td>
<td>0.40***</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Followers’ work engagement</td>
<td>3.73</td>
<td>0.75</td>
<td>0.20***</td>
<td>-0.01</td>
<td>0.06</td>
<td>-0.15**</td>
<td>0.04</td>
<td>0.00</td>
<td>-0.08</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>9. Subjective career success</td>
<td>3.13</td>
<td>0.80</td>
<td>0.15**</td>
<td>-0.06</td>
<td>0.05</td>
<td>-0.17**</td>
<td>0.05</td>
<td>0.07</td>
<td>0.01</td>
<td>0.56**</td>
<td>—</td>
</tr>
</tbody>
</table>

Note: **p<0.01, *p<0.05; 0=female, 1=male, (mean value of sex represented data of male followers); The leaders’ work engagement reflected group-level (work team)data.
Leaders’ work engagement’s influence on follower subjective career success: multilevel mediation effect of followers’ work engagement

The model was cross-level mediation-lower mediator, i.e. Model 2-1-1. We centralized Level 1 variable based on mean value of the group to separate between-group mediation effect from intra-class one, resulting in a more accurate estimation of mediation effect (Fang, et al., 2010). To begin with, a null model M1 was built and the percentage of between-group variance in dependent variables variance, i.e. ICC (1) (intra-class correlation coefficient) is computed. In our research, ICC (1) = 0.13/(0.13+0.52) =0.20>0.06, and the between-group variance was significant ($\tau_{00}$=0.133, $\chi^2$=159.721, $p<0.001$). Thus, between-group effect could not be neglected and multilevel analysis by means of HLM was necessary (Wen, 2009; Zhang, et al., 2003).

We followed three-step procedure to test cross-level mediation effect.

In Step 1, we built M2 to examine direct effect ($c$) of team leaders’ work engagement on follower subjective career success. HLM results revealed that leaders’ work engagement had a positive influence on follower subjective career success ($\gamma_{01c}=0.13$, $t=2.59$, $p=0.014$).

In Step 2, we built the multilevel regression equation based on M3, in order to test the direct effect ($a$) of leaders’ work engagement on followers’ work engagement. HLM results showed that leaders’ work engagement has a positive effect on followers’ work engagement ($\gamma_{01a}=0.19$, $t=2.34$, $p=0.022$). H2 was verified.

In Step 3, M4 was built to test the effect ($c’$ and $b$) of leaders’ work engagement and followers’ work engagement. Results revealed that followers’ work engagement has a positive effect on follower subjective career success ($\gamma_{10b}=0.53$, $t=8.09$, $p<0.001$). After controlling followers’ work engagement, the influence from leaders’ work engagement on follower subjective career success was not significant ($\gamma_{01c}=0.01$, $t=0.06$, $p>0.05$). In sum, followers’ work engagement functioned as a complete mediation variable in the relationship between leaders’ work engagement and follower subjective career success, proving H3 of the study.

Table 3

<table>
<thead>
<tr>
<th>Model</th>
<th>L1</th>
<th>L2</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1:Null model</td>
<td>$SCS_{ij} = \beta_0 + r_{ij}$</td>
<td>$\beta_0 = \gamma_{00} + \mu_0$</td>
</tr>
<tr>
<td>M2: Lworen→SCS</td>
<td>$SCS_{ij} = \beta_0 + r_{ij}$</td>
<td>$\beta_0 = \gamma_{00} + \gamma_{01}(Lworen) + \mu_0$</td>
</tr>
<tr>
<td>M3: Lworen→Fworen</td>
<td>$Fworen_{ij} = \beta_0 + r_{ij}$</td>
<td>$\beta_0 = \gamma_{00} + \gamma_{01}(Lworen) + \mu_0$</td>
</tr>
<tr>
<td>M4: Lworen, Fworen→SCS</td>
<td>$SCS_{ij} = \beta_0 + \beta_1(Fworen) + r_{ij}$</td>
<td>$\beta_0 = \gamma_{00} + \gamma_{01}(Lworen) + \mu_0$</td>
</tr>
<tr>
<td>M5: Moderation Effect</td>
<td>$SCS_{ij} = \beta_0 + \beta_1(Fworen) + r_{ij}$</td>
<td>$\beta_0 = \gamma_{00} + \gamma_{01}(Lworen) + \mu_0$</td>
</tr>
</tbody>
</table>

Note: SCS = Subjective Career Success, Lworen=Leaders’ work engagement, Fworen=Followers’ work engagement, Mworen=Mean work engagement (based on followers’ work engagement on group level).
Followers’ work engagement’s influence on follower subjective career success: multilevel moderation effect of leaders’ work engagement

According to the M5 shown in table 3, we tested the multilevel moderation effect of leaders’ work engagement between followers’ work engagement and subjective career success. Result showed that the moderation effect of leaders’ work engagement was significant ($\gamma_{11} = -0.23, t = -2.75, p = 0.008$). That was, the effect of followers’ work engagement on subjective career success became smaller as leaders’ work engagement grew up.

Discussion

Influence mechanism of leaders’ work engagement on followers’ subjective career success

The present study found that leaders’ work engagement could exert a positive influence on followers’ subjective career success and such influence was mediated by followers’ work engagement. In line with our hypothesis 2, the result suggested that leaders’ work engagement influenced followers’ work engagement. We proposed that the reason why leaders’ work engagement could exert a positive influence on followers’ work engagement was determined by emotion contagion, social learning, organizational support and sincere interaction. This effect of leaders’ work engagement on followers’ work engagement could promote followers’ subjective career success, and followers’ work engagement functioned as a cross-level mediator. Our hypothesis 3 has been verified.

Inconsistent with hypothesis 4, leaders’ work engagement acted as a negative moderator but not a positive one. That is, the more the leader was engaged in his work, the smaller the effect of followers’ work engagement on their subjective career success. In the perspective of social comparison, people want to estimate their ability properly but they often lack objective standards (Festinger, 1954). Although it may make us upset, we tend to compare with those who are more outstanding than us (Gibert, & Giesler, 1995), such as leaders. In the process of comparing with the engaged and outstanding leader, followers might experience dissatisfaction with their career. Leaders’ elevated level of work engagement decreased the effect of leaders’ work engagement on subjective career success.

Implications

The current study is of great theoretical and practical implications.

1. We adopted HLM to explore relationships between cross-level variables among teachers, which accelerated the ecological validity and explanatory power of the existing researches.
2. Considering the positive influence of work engagement exerted upon their subjective career success, we should focus on the improvement of work engagement, especially leaders’.

Study limitations and Suggestions for future research

Due to major differences in different organizations, we should be cautious in generalizing the results of this study to other organizations. In addition, this study was conducted with participants in Chinese cultural context. Thus, the results should be cautiously promoted in cross-culture context. More research is needed to be conducted in a cross-cultural context, seeking to explore the interaction between leaders’ and followers’ work engagement in distinct cultures. Besides, we should expand our sample size with samples from different organizations in different industry.

Conclusion

In sum, our results revealed that leaders’ work engagement was positively related to followers’ subjective career success, with this relationship mediated by follower work engagement in a multilevel model. Moreover, leaders’ work engagement functioned as a moderator in the relationship between followers’ work engagement and their subjective career success.
References


of alternative approaches and a reanalysis of past research. *Management Science, 52*(12), 1865-1883.


