A pathway from proactive personality to job engagement: will team-member exchange and psychological safety act as mediators?

Abstract: This article reports the psychological process of how proactive personality may affect job engagement. This study proposes that team-member exchange (TMX) and psychological safety will mediate the relationship between proactive personality and job engagement. Data were collected from 409 Indonesian employees working in various organizations. The results of structural equation modeling (SEM) analysis demonstrated a strong support for the proposed hypotheses and model. Results indicated that proactive personality positively affected TMX, psychological safety and job engagement. TMX positively affected psychological safety and job engagement. Also, psychological safety positively affected job engagement. It was found that TMX and psychological safety played roles as mediators. This findings suggest that through managing proactive attributes of human resource, TMX relationships, and psychological safety, organizations may expect a higher level of employee engagement.

Keywords: proactive personality, team-member exchange (TMX), psychological safety, and job engagement.
1 Introduction

Job engagement (or in some papers labeled as “work engagement”) is critical for enhancing individual and organizational performance. According to Kahn (1990), employees may use varying degrees of their selves; cognitively, emotionally, and physically in the roles they perform. The more employees devote the selves on job roles, the higher their performance (Rich et al., 2010). To increase organizational effectiveness, a higher level of employee engagement is therefore more desirable. Not surprisingly, scholars have put their attention to research factors that may influence job engagement. Prior studies have examined the influences of personal attributes (Hakanen et al., 2008; Kim et al., 2009; Rich et al., 2010), job/personal resources (Xanthopoulou et al., 2009; Karatepe and Olugbade, 2009), relationship quality (May et al., 2004), and leadership (Karatepe and Olugbade, 2009; Tims et al., 2011).

This study aims at investigating the influences of proactive personality, team-member exchange, and psychological safety on job engagement. Proactive personality is a dispositional construct that identifies differences among people in regard to the extent to which they take action to influence their environments (Bateman and Crant, 1993). Highly proactive employees are characterized by their tendency to identify opportunities and act for them, show initiative, take action, and persevere until meaningful change occurs (Bateman and Crant, 1993). Prior studies have suggested that the personality leads to various desirable work outcomes (Thompson, 2005; Seibert et al., 1999; Lee et al., 2003).

As mentioned, this study included team-member exchange (hereafter “TMX” in most parts) and psychological safety. Both TMX and psychological safety are related to employees’ behavior/attitude as team members. TMX refers to the social exchange of an employee with his/her team members in terms of reciprocal contributions of ideas, feedback and assistance
Whereas, psychological safety refers to the extent to which a member of a team can express him/herself without any fear of negative consequences (Kahn, 1990). In increasingly changing business environment, every organization needs to be more flexible and agile. Team-based approach is suggested as one of appropriate working structures which organizations may adopt in order to enhance the level of adaptability and agility (Liao et al., 2013). Moreover, to be effectively applying this approach, organizations must encourage their members to be accustomed to work in teams. As important team behavior and attitude, TMX and psychological safety should get more attention in organizational behavior research. Since, job engagement may enhance individual and organizational performance, scholars have put a little attention on whether proactive personality with TMX and psychological safety can influence job engagement.

2 Theoretical development and hypotheses

2.1 Proactive personality, team-member Exchange, psychological Safety, and job engagement

Psychologists have distinguished people based on how they respond and influence their environment (Bateman and Crant, 1993). In respect to responding environment, people can be categorized as whether more passive (or low-proactive) or proactive individuals. Proactive personality measures the extent to which a person is relatively unconstrained by situational forces and effect environmental change (Crant, 1995; Bateman and Crant, 1993). Proactive individuals tend to show initiative, take action and persevere until they bring about meaningful change in a variety of work situations (Crant, 1995). In contrast, individuals who are not proactive (or passive) mostly fail to identify, let alone seize, opportunities to change things (Kirby et al., 2002; Crant, 1995).
Proactive personality literature has theorized that a proactive process may include three stages, namely individual differences in proactive personality, proactive behaviors, and outcomes (Crant, 2000). Based on this conception, this study proposes a model linking proactive personality on TMX, psychological safety, and job engagement. In a similar vein, literature on proactive personality suggests that the outcomes of proactive personality should be better if they are assessed through mediational relationships (Thompson, 2005). The present study proposes to investigate whether TMX and psychological safety might play roles as mediational mechanism on the influence of proactive personality on job engagement.

This study expected the influences of proactive personality on TMX, psychological safety, and job engagement. It has been said that proactive employees are more able to shape their own work environment (Kraimer et al., 1999). More specifically, they are encouraged to shape their environment through building social relationships with people in organizations (e.g., Thompson, 2005). More specifically, Thompson suggested that proactive employees are likely to seek ways to construct a social environment conducive to their own success on the job. It is because proactive personalities may perceive that a high quality relationship with other parties in organizations makes them to be more effective participants of their organizations (Gong et al., 2012). From the perspective of high proactive personalities, a high quality relationship may enhance their roles to help their personal achievements (Kraimer et al., 1999; Thompson, 2005; Brown et al., 2006), because through effective social interactions, because they can acquire relevant information to develop skills, maintain networks, and streamline information exchange to more effective (Crant, 2000; Gong et al., 2012; Seibert et al., 2001). Since prior research has demonstrated the ability of proactive employees to build social networking with others (Thomas et al., 2010) and exchange relationships with supervisors (Fuller Jr and Marler, 2009; Li et al.,
2010), it was expected in this study that proactive employees may be also better in developing exchange relationships with teammates (Liao et al., 2013).

Will higher proactive employees be more psychologically safe in workplace? Proactive personality literature has suggested that proactive employees tend to have sense of personal control toward their working environment (Crant, 2000; Crant, 1995; Converse et al., 2012), to be able to choose work environments that closely match with their values and interests (Greguras and Diefendorff, 2010), and to adapt themselves with job demands (Fuller Jr and Marler, 2009; Parker et al., 2006; Bakker et al., 2012) through active learning (Major et al., 2006; Truxillo et al., 2012). Compared to low-proactive employees, there are some differing attributes of high-proactive employees. It can be presumed that the higher the proactivity the more employees to be capable to take in a broader work role (i.e., role breadth self-efficacy, Crant, 2000; Parker et al., 2006). They are also presumed to have higher self-esteem (i.e., positive beliefs about oneself, Crant, 2000), self-efficacy (i.e., self-confidence to accomplish assigned tasks, Fuller Jr and Marler, 2009; Brown et al., 2006), and self-determination in their work lives (Greguras and Diefendorff, 2010; Seibert et al., 1999). In addition, they are also better in coping with stressful events in workplace (Crant, 2000). With these attributes, it can be expected in this study that high proactive personalities tend to perceive a higher psychological safety toward various kinds of work circumstances. The central reason of why highly proactive employees can be expected to have a higher psychological safety because they are incline to have positive self-impressions about their environment. In a similar vein, prior research has demonstrated that proactive employees were indicated to feel more secure with their environment that manifested in their willingness to challenge status quo through their voice (Fuller Jr and Marler, 2009). In other words, because proactive employees are presumed to be able to adapt to and respond with their
work circumstances in more positive ways, their psychological safety will be more developed. Hence, it was expected that the higher the proactive personality scores the higher the employees’ psychological safety.

Employees can engage in a variety of proactive activities as part of in-role behavior in which they fulfill basic job requirements (Crant, 2000; Bakker et al., 2012). Consistent with this notion, it has been argued that employees with a great eagerness to proactively change their environment are inclined to more engage in work roles (Bakker et al., 2012). As previously mentioned, prior studies have demonstrated the ability of proactive personality to promote employees’ self-efficacy (see Brown et al., 2006; Parker et al., 2006). Self-efficacy refers to one’s belief on his/her own capacity to accomplish designated tasks. In the case when self-efficacy is higher, employees are motivated to engage (Karatepe and Olugbade, 2009; Rosso et al., 2010). Self-efficacy is an important personal resource for job engagement (Karatepe and Olugbade, 2009), because with a higher level of self-efficacy, employees believe that (1) they are capable, (2) their efforts are meaningful, and therefore (3) they can make a difference. In addition, proactive personality was found to correlated with the need for achievement (Bateman and Crant, 1993), willingness to learn (Major et al., 2006), and other personal qualities such as self-control, change orientation, and flexible role orientation (Parker et al., 2006) which those personal resources may lead to various facets of performance (Kahn, 1990; Karatepe and Olugbade, 2009; Fuller Jr and Marler, 2009). It was predicted that employees with employees with a high level of proactive personality will engage in their work roles better than those with a low level of proactive personality. To summarize, the following hypotheses are proposed:

\[ H1: \text{Proactive personality will be positively related to TMX.} \]

\[ H2: \text{Proactive personality will be positively related to psychological safety.} \]
**H3: Proactive personality will be positively related to job engagement.**

2.2 **Team-member exchange, psychological safety, and job engagement**

Kahn (1990) has strongly suggested that individuals’ psychological safety will be improved when they enjoy supportive and trusting interpersonal relationships. In such relationships, employees are willing to share their ideas without perceiving that such effort is too risky to do so (Kahn, 1990). Employees may feel that their teammates will appreciate the ideas. Kahn added that psychologically safe members may feel that expressions will be responded with constructive feedbacks rather than destructive ones. Alternatively, people will not feel such safety when a member feel disconnected from others. Therefore, a conducive exchange relationship among team members may increase employees’ perception of psychological safety.

Furthermore, TMX that reflecting high quality relationships of an employee with teammates should promote his/her engagement (Liao et al., 2013; Kahn, 1990). Scholars have suggested various benefits of conducive team relationships. For example, employees can enhance their work roles more effectively through information and resources exchange (Banks et al., 2014; Seers, 1989). Moreover, through information exchange, TMX may also promote individual skills related to their tasks (Banks et al., 2014). In addition, Seers (1989) has suggested the role of helping among team members in enhancing work engagement. In a high quality of TMX, a supportive atmosphere can be more expected to improve a better engagement. In such situation, members can enjoy assistances from teammates, e.g., overcoming problems or difficulties, which in turn, it helps them to accomplish their tasks. Moreover, in a high quality of TMX, employee engagement may be improved, because employees can enhance their work-related skills and receive various forms of supports from other members (Liao et al., 2013). It
was expected that employees’ perception of the quality of TMX relationships will contribute to their own evaluation of job engagement. In summing, the following hypotheses are formed:

*H4: TMX will be positively related to psychological safety.*

*H5: TMX will be positively related to job engagement.*

### 2.3 Psychological safety and job engagement

Kahn (1990) also strongly suggested that organizations can expect a higher engagement from psychologically safe employees. Psychological safety should promote engagement because it reflects employees’ belief that they can express themselves without fear of negative consequences (May et al., 2004; Kahn, 1990). In contrast, perceived low psychological safety characterized by ambiguous, unpredictable, and threatening conditions, is likely to cause employees’ disengagement. Using samples from a large insurance company in USA, May, et al. (2004) found a positive impact of psychological safety on engagement. Consistent with the notions and finding, it was predicted in this study that employees particularly with high psychological safety will be better in performing job engagement. Thus, it is proposed:

*H6: Psychological safety will be positively related to job engagement.*

### 2.4 Mediational relationships: integrating the research variables

This study sought to unfold the process of proactive personality can lead to job engagement. As conceptualized, TMX and psychological safety are posited between proactive personality and job engagement. Thus, the influence of (1) proactive personality on psychological safety may also pass through TMX and (2) TMX on job engagement may also pass through psychological safety. Overall, the proactive personality $\rightarrow$ TMX $\rightarrow$ psychological safety $\rightarrow$ job engagement path is thus plausible. In light on the above argument, the following set of hypotheses were also proposed:
H7: TMX will mediate the relationship between proactive personality and psychological safety.

H8: Psychological safety will mediate the relationship between TMX and job engagement.

H9: The effect of proactive personality on job engagement will be mediated by TMX and psychological safety.

3 Method

3.1 Respondents and procedure

Respondents were alumni of two higher educations (an academy and a college) in Indonesia. The alumni were chosen based on their employment status. Only alumni those were working as employees who were involved, because they were suitable to the context of this study. Because the alumni were spread throughout regions in Indonesia, online survey was used. This method was also considered more suitable and efficient. Online questionnaire was administrated in Indonesian. A translation-retranslation procedure was conducted to maintain the Indonesian and original English questionnaires were comparable. First, all items were translated into Indonesian. Second, the author involved several academicians to evaluate the Indonesian version. From their inputs, the author made the first revisions on the Indonesian version questionnaire. Third, the revised Indonesian version was translated back into English by a certified translator. Finally, the author compared both English versions and made the final revisions on the Indonesian version.

The author distributed to 950 selected alumni of institutions. Four hundred and ten respondents gave responses representing a 43% response rate. One response was incomplete and dropped. Four hundred and nine samples were usable. Forty six percent of the respondents was female. The author classified respondents’ age into four groups of intervals (21 – 30; 31 – 40; 41 – 50, and more than 50 years). For age, most of the respondents were belong to the group interval 21 – 30 (54.8%) and 31 – 40 (34.5%). Fifty four percent of them were married. All
respondents received an undergraduate diploma and 22% of them also finished master’s degree. This evidence indicated that our respondents were relatively well-educated. The average organizational- and team tenure were 2.02 and 1.78 years, respectively.

3.2 Measurements

Proactive personality. Proactive personality was assessed with the 10-item scale version used in Seibert, et al. (1999). This scale was measured on a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The Cronbach’s alpha for this scale was .87.

Team-member exchange (TMX). TMX was assessed with the 10-item scale developed by Seers, Petty, and Cashman (1995). This scale was measured on a 5-point Likert scale ranging from (1) to a very little extent to (5) to a very great extent. The Cronbach’s alpha for this scale was .77.

Psychological safety. Psychological safety was assessed with the 7-item scale of Edmondson (1999). However, one item was found to have low loading. The item was dropped. This scale was measured on a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The Cronbach’s alpha for this scale with 6 items was .76.

Job engagement. May, Gilson, and Harter (2004) developed the 13-item scale of job engagement based on the Kahn’s (1990) concept of engagement. Of the items, 4 items for assessing cognitive-, another 4 items for assessing emotional-, and last 5 items for assessing physical engagement. This scale was measured on a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The Cronbach’s alphas for cognitive, emotional, and physical engagement were .71, .72, and .75 respectively. The overall Cronbach’s alpha for this scale was .80.
Control variables. In addition, this study included gender (male = 1; female = 0), age (21 – 30, coded as 1; 31 – 40, coded as 2; 41 – 50, coded as 3; and more than 50, coded as 4), and education (bachelor degree, coded as 1; master’s degree, coded as 2; and doctoral degree, coded 3) as control variables.

4 Results

The means, standard deviations, and correlations among the research variables are shown in Table 1. As shown, positive correlations among the study variables were found and significant at p < .01.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</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>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td>.54</td>
<td>.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Age</td>
<td>1.57</td>
<td>.71</td>
<td>.14**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Education</td>
<td>1.24</td>
<td>.44</td>
<td>.00</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Proactive personality</td>
<td>4.04</td>
<td>.47</td>
<td>.10*</td>
<td>.10*</td>
<td>.02</td>
<td></td>
<td></td>
<td></td>
<td>(.87)</td>
</tr>
<tr>
<td>5. TMX</td>
<td>3.87</td>
<td>.43</td>
<td>.03</td>
<td>.14**</td>
<td>.00</td>
<td>.35**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Psychological safety</td>
<td>3.67</td>
<td>.58</td>
<td>.03</td>
<td>-.04</td>
<td>.02</td>
<td>.20**</td>
<td>.40**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Job engagement</td>
<td>3.73</td>
<td>.44</td>
<td>.05</td>
<td>.08</td>
<td>.09</td>
<td>.46**</td>
<td>.41**</td>
<td>.29**</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* N = 409, * p < .05; ** p < .01, two-tailed. Cronbach’s alphas are shown in the parentheses.
4.1 Preliminary analyses for the research variables

Prior to the assessments for the proposed model and hypotheses, all measures were validated. The total items were 39. Validity tests for the study variables were performed in SPSS program. The average loadings for proactive personality, TMX, and psychological safety were .68, .57, and .67. The average loading for each of cognitive, emotional, and physical engagement .69. In addition, because job engagement consists of 3 dimensions (i.e., cognitive, emotional, and physical engagement), a discriminant validity test for the items of the dimensions was performed. The analysis with a Varimax rotation method demonstrated that each item was well-loaded in its related factor.

To find support for the proposed hypotheses and model, structural equation modeling (SEM) analysis in AMOS program was employed. As suggested by Anderson and Gerbing (1988), a series of tests for measurement models to reconfirm convergent and discriminant validity were firstly conducted. The average score of each dimension of job engagement was firstly calculated. The averages were posited as the first order factors and loaded on job engagement as the second order factor. For proactive personality, TMX, and psychological safety, the items of the variables were posited as the first order factor and loaded on the latent variables as the second order factors. The baseline model (i.e., a four-factor measurement model) was evaluated. In this model, all study variables were separated (i.e., proactive personality, TMX, psychological safety, and job engagement). The results demonstrated that the baseline measurement model received satisfactory fit indices (see Table 2, $\chi^2 = 569.44$ on 324 degree of freedom; $\chi^2$/df =1.76; CFI = .93; RMSEA = .04). Each item was correlated with its respective factor at p < .001. In comparison, three three-factor measurement models were also assessed. Because this study was focused on job engagement, in the first three-factor model, job
engagement and proactive personality were merged as one factor (see Rich et al., 2010 for a review). In the second three-factor model, job engagement and TMX were merged. Lastly, in the third three-factor model, job engagement and psychological safety were merged. The results showed that the baseline model was significantly better than all alternative models (Table 2). Both convergent and discriminant validity were validated.
**Table 2 Measurement model comparison**

<table>
<thead>
<tr>
<th>Structure</th>
<th>Fit Indices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\chi^2$</td>
</tr>
<tr>
<td>A four-factor model</td>
<td>569.44</td>
</tr>
<tr>
<td>A three-factor model, JE and PP merged</td>
<td>636.87</td>
</tr>
<tr>
<td>A three-factor model, JE and TMX merged</td>
<td>699.59</td>
</tr>
<tr>
<td>A three-factor model, JE and PS merged</td>
<td>698.03</td>
</tr>
</tbody>
</table>

Note: N = 409. JE = job engagement, PP = proactive personality, TMX = team-member exchange, PS = psychological safety, df = degree of freedom, $\chi^2$ = chi-square, CFI = comparative fit indices, RMSEA = root mean square error of approximation, $\Delta \chi^2$, $\Delta$df = chi-square and degree of freedom difference against to the four-factor model.
4.2 Hypotheses testing

4.2.1 Direct relationships

Table 3 shows the results for the standardized path coefficients, standard errors, critical ratios, and significances of the hypothesized structural model. Hypothesis 1 predicted that proactive personality would be positively related to TMX. As shown, proactive personality was positively related to TMX ($\beta = .41$, $p < .001$). The result supported H1. Hypothesis 2 predicted that proactive personality would have a positive influence on psychological safety. The result demonstrated that proactive personality was positively related to psychological safety ($\beta = .15$, $p < .01$). The result supported H2. Hypothesis 3 expected that proactive personality would be also positively related to job engagement. As expected, the result showed the significant effect of proactive personality on job engagement ($\beta = .53$, $p < .001$). The result thus provided support for H3. Hypothesis 4 proposed that TMX would have a positive impact on psychological safety. As shown, the positive impact of TMX on psychological safety was found ($\beta = .40$, $p < .001$). H4 was supported. Hypothesis 5 also expected a positive impact of TMX on job engagement. As expected, the result demonstrated that TMX was positively related to job engagement ($\beta = .20$, $p < .01$). The result supported H5. Lastly, Hypothesis 6 proposed a positive influence of psychological safety on job engagement. As shown, the positive impact of psychological safety on job engagement was found ($\beta = .15$, $p < .05$). H6 was also supported.
Table 3 Standardized path coefficients in the hypothesized model

<table>
<thead>
<tr>
<th>Path</th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender → Job engagement</td>
<td>.03</td>
<td>.04</td>
<td>.52</td>
<td>.604</td>
</tr>
<tr>
<td>Age → Job engagement</td>
<td>.06</td>
<td>.03</td>
<td>1.12</td>
<td>.262</td>
</tr>
<tr>
<td>Education → Job engagement</td>
<td>.05</td>
<td>.04</td>
<td>1.07</td>
<td>.283</td>
</tr>
<tr>
<td>Proactive personality → TMX</td>
<td>.41</td>
<td>.07</td>
<td>6.17</td>
<td>***</td>
</tr>
<tr>
<td>Proactive personality → PS</td>
<td>.15</td>
<td>.08</td>
<td>3.06</td>
<td>.002</td>
</tr>
<tr>
<td>Proactive personality → Job</td>
<td>.53</td>
<td>.07</td>
<td>6.28</td>
<td>***</td>
</tr>
<tr>
<td>TMX → PS</td>
<td>.40</td>
<td>.09</td>
<td>7.38</td>
<td>***</td>
</tr>
<tr>
<td>TMX → Job engagement</td>
<td>.20</td>
<td>.05</td>
<td>3.20</td>
<td>.001</td>
</tr>
<tr>
<td>PS → Job engagement</td>
<td>.15</td>
<td>.03</td>
<td>2.57</td>
<td>.010</td>
</tr>
</tbody>
</table>

Note. N = 409, *** p < .001.

4.2.2 Mediational relationships

Table 4 shows the standardized indirect and total effects, and significances. Hypothesis 7 expected that TMX would mediate the relationship between proactive personality and psychological safety. As found, the indirect effect of proactive personality on psychological safety was .26 (p < .001). The result supported H7. Hypothesis 8 proposed that psychological safety would mediate the relationship between TMX and job engagement. As shown, the indirect effect of TMX on job engagement was .08 (p < .1). The result provided support for H8, albeit it was only marginally significant. Finally, hypothesis 9 expected that the effect of proactive personality on job engagement would be mediated by TMX and psychological safety. As expected, the indirect effect of proactive personality on job engagement was .17 (p < .001). The result thus supported H9. Table 4 shows the total effects of proactive personality and TMX on
job engagement were .63 and .38 (both were significant at p < .001), therefore adding up the
direct effects of those variables on job engagement (see Table 3). Overall, the results
demonstrated the existence of direct and indirect effects of both proactive personality and TMX
on job engagement, hence supporting the study model.

**Table 4** Indirect and total effects of proactive personality and TMX

<table>
<thead>
<tr>
<th>Variable</th>
<th>Standardized indirect effect on Psychological safety</th>
<th>Standardized indirect effect on Job engagement</th>
<th>Standardized total effect on Psychological safety</th>
<th>Standardized total effect on Job engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proactive personality</td>
<td>.26 (.001)</td>
<td>.17 (.001)</td>
<td>.27 (.001)</td>
<td>.63 (.001)</td>
</tr>
<tr>
<td>TMX</td>
<td>-</td>
<td>.08 (.068)</td>
<td>-</td>
<td>.38 (.001)</td>
</tr>
</tbody>
</table>

Note: N = 409. Numbers in the parentheses are the significances.
5 Discussion

5.1 Research findings

The purpose of this study is to integrate proactive personality, TMX, psychological safety, and job engagement. This study found the evidences that (1) proactive personality is positively related to TMX, psychological safety, and job engagement, (2) TMX is positively related to psychological safety and job engagement, (3) psychological safety is positively related to job engagement, (4) TMX mediates the relationship between proactive personality, (5) psychological safety mediates the relationship between TMX and job engagement, and (6) TMX and job engagement mediate the relationship between proactive personality and job engagement. Overall the theoretical path and study model as proposed received support from the results (see Figure 1). The study model received a satisfactory fit.

Figure 1 Proposed model with standardized path estimates
Note. N = 409. * p < .05; ** p < .01; *** p < .001. To the ease of presentation, all control variables are not presented. Fit indices: $\chi^2$ [df] = 659.63 [405]; $\chi^2$/df = 1.63; CFI = .93; RMSEA = .04.

5.2 Theoretical and practical implications

This study offers an integrative model of proactive personality, TMX, psychological safety, and job engagement. Also, this study proposes that TMX and psychological safety may mediate the relationship. Research has reported the mediating role of job crafting between proactive personality and engagement (Bakker et al., 2012). Thus, this taps the other factors which can act as mediators between the variables. As mentioned, since organizational scholars suggest the importance of team-based work for organizations in increasingly intensive competition, TMX and psychological safety are becoming significant team behavior and attitude (Seers, 1989; Edmondson, 1999). The inclusion of these variables as mediators is thus necessary and gives a novel understanding of how proactive personality can be manifested into job engagement.

Scholars have strongly suggested on the investigation of the TMX-job engagement link (Liao et al., 2013). Since those scholars have yielded an insignificant relationship between the variables (Liao et al., 2013), this study thus provides an evidence about the link. This finding is in line with prior research suggesting the ability of this personality to explain the extent to which individuals are willing to involve in interpersonal relationships (Fuller Jr and Marler, 2009; Crant, 2000). This study also found a positive impact of proactive personality on psychological safety. A reasonable explanation why proactive employees have a higher level psychological safety, they can respond their team environment better than less proactive employees, which in turn develop their own perception of psychological safety. This study found a positive effect of proactive personality on job engagement. This finding is consistent with prior findings. That is,
proactive employees are mostly better in various performance measures (Crant, 1995; Chan, 2006; Thomas et al., 2010; Truxillo et al., 2012). The significant link of TMX and psychological safety was also found. This evidence suggests that a high quality of TMX relationships will not only provide conducive environment for team members, but also may improve their psychological safety. Moreover, consistent with prior research (May et al., 2004), this study also found that psychological safety was positively related to job engagement. This strengthens Kahn’s (1990) idea arguing that psychological safety is an important psychological state which may lead to employee engagement. Overall, through the assessment of the mediational relationship, this study sheds light the psychological process in which proactive personality can improve job engagement. Hence, the incorporation of TMX and psychological safety in the model should the major theoretical contribution of this study.

Organizations, managers, and management consultants may benefit from the findings of this study. Although, practitioners have understood about the meaning of proactive personality in improving positive behavior, attitudes, and desirable performance (e.g., Fuller Jr and Marler, 2009), through this study they may get a new knowledge of enhancing employee engagement. As suggested by the findings, practitioners may wish to develop TMX relationships and psychological safety. Other studies have also suggested that conducive climate such as supportive diversity climate, supervisor relations, leaderships may also influence safety levels of employees (May et al., 2004; Singh et al., 2013; Carmeli et al., 2010). Therefore, practitioners should consider these factors in order to enhance employees’ psychological safety. Because TMX has a critical role in the theoretical path, practitioners are suggested to improve TMX relationships by employing the roles of employees, team leaders, and the use of self-management team (Seers, 1989). Lastly, organizations may benefit from their proactive employees, because
they are empirically better to improve TMX quality and psychological safety for job
engagement. Hence, to improve organizational performance through employee engagement,
organizations should realize and strengthen the role of proactive employees. In doing so,
proactive indicators (Crant, 2000) should be important and counted in human resource process
(i.e., selection, promotion, rotation, and team building).

5.3 Limitations and future directions

At least two limitations shall be noted. First, although this research has offered a new insight on
the relationship between proactive personality and job engagement (Bakker et al., 2012), this
study employed a cross-sectional design, namely the data were taken in one point in time. It
might raise the problem of common method variance that may result false correlations among the
study variables (Chang et al., 2010). The findings should be interpreted with cautious. Future
research should cover other resources of data for the independent variable or use multiple times
in data collection. A longitudinal design may also be implemented to better understand the causal
relationships among the variables. Second, the online questionnaire survey was employed.
Although this method was efficient for geographically spread respondents and might guarantee
respondents’ independent to complete the survey questions, the author could not control the
quality of data. Further research can employ other method in collecting data, e.g., internet direct
interview.

Unlike the prior research (Liao et al., 2013), this study yielded a significant relationship
between TMX and job engagement. Future study may reinvestigate the link to reconcile the
inconsistent findings. Moreover, although psychological safety is conceptualized to be important
for employee engagement, as shown, the magnitude of the effect of psychological safety on job
engagement was not very strong. This fact is similar with the finding of a prior research
conducted by May, et al. (2004). Also, this study also found that the indirect effect of TMX on job engagement via psychological safety was somewhat weak. It is suggested that the TMX-engagement and psychological safety-engagement links should involve moderating variables. Future research may investigate the moderating roles of self-efficacy, supervisor/organizational support, supervisor relationship, and some job characteristics (i.e., skill variety, task identity, task significant, autonomy, and feedback). For example, TMX and self-efficacy may have a joint effect on job engagement, namely a high quality of TMX relationships and a high level of self-efficacy might interactively foster a strong job engagement. Lastly, future research could employ other mediating variables. As suggested by Crant (2000), the pathway proactive personality → proactive behaviors → performance is more logical, because it can better explain the transformation of proactive personality into performance (see also Bakker et al., 2012; Greguras and Diefendorff, 2010; Gong et al., 2012). Investigating other proactive behaviors such as feedback/issue selling, networking behavior, learning motivation might advance our understandings of the proactive personality-engagement relationship.

6 Conclusion

This paper proposes a model that sequentially linking proactive personality, TMX, psychological safety, and job engagement. It advances our understanding of the ability of proactive personality to directly develop job engagement, and indirectly via TMX and psychological safety. It advances our understanding of the ability of proactive personality to directly develop psychological safety, and indirectly via TMX. Lastly, it also reconfirms our understanding of the ability of proactive personality to promote LMX quality.
References


