Psychological contract breach and teachers’ organizational commitment: mediating roles of job embeddedness and leader-member exchange

Veronica Serwaa Amoah, Francis Annor and Maxwell Asumeng
Department of Psychology, University of Ghana, Accra, Ghana

Abstract
Purpose – The study examined the relationship between psychological contract breach and organizational commitment and whether leader-member exchange and job embeddedness mediate this relationship.
Design/methodology/approach – The study adopted a quantitative approach and is based on a sample of 298 teachers in basic schools in Accra, Ghana. Participants completed surveys with standardized measures on psychological contract breach, job embeddedness, leader-member exchange and organizational commitment. Hypothesized relationships were tested using structural equation modeling in AMOS 21.0.
Findings – Psychological contract breach had a direct negative relationship with affective and normative commitment but had no significant direct relationship with continuance commitment. Psychological contract breach was indirectly related to affective and normative commitment through both job embeddedness and leader-member exchange, and indirectly related to continuance commitment through only job embeddedness.
Practical implications – Findings from the study suggest that employers’ failure to fulfill their obligations to employees has significant potential cost to the organization, and underscore the need for managers, particularly in educational institutions, to institute measures to eliminate or minimize the occurrence of psychological contract breach.
Originality/value – The study contributes to research examining antecedents of organizational commitment as well as the mechanisms linking psychological contract breach to organizational commitment in the educational context.
Keywords Psychological contract breach, Organizational commitment, Job embeddedness, Leader-member exchange, Teachers
Paper type Research paper

Introduction
Spurred by concerns about teacher attrition coupled with the reform movement emphasizing high standards in educational institutions, current research on educational management increasingly focuses on the motivational basis for the attitudes of teachers (Craig, 2017; Ford et al., 2019). Among key indicators of teachers’ work-related attitudes, organizational commitment has received significant research attention, due to the notion that committed teachers are more likely to produce positive individual- and organizational-level outcomes. Indeed, several studies have linked teacher organizational commitment to higher teacher effectiveness, job performance, organizational citizenship behaviors, and student success (e.g., Chan et al., 2008; Jing and Zhang, 2014) as well as lower turnover intentions (e.g., McInerney et al., 2015).

Given the importance of teacher organizational commitment, numerous studies have examined its antecedents. For instance, personal characteristics like age and teaching experience, school background characteristics like size and sector of school, and workplace conditions such as job autonomy and organizational justice have been studied as antecedents of teacher organizational commitment (e.g., Chan et al., 2008; Dou et al., 2017; Li, 2014; Somech and Bogler, 2002). However, limited research has explored how employer-employee
relationships shape job attitudes in the educational context. Although extant leadership studies in education have provided insight into how employment relationships shape job attitudes and other organizational outcomes (e.g., Ford et al., 2019; Hulpia et al., 2011), these studies have tended to focus on interpersonal relations between school leaders and subordinates. There is a paucity of research examining how teachers’ job attitudes are influenced by their expectations and beliefs concerning job and organizational characteristics based on implicit agreement with their employers. One of the commonly used frameworks for explicating such employment relations is that of psychological contract.

Introduced by Rousseau (1989), the term psychological contract represents an exchange-based relation emanating from subjective beliefs regarding mutual agreement between an employee and the organization or its agents. From an employee’s perspective, psychological contract breach (PCB) represents the perception that his or her employer has reneged on its promised obligations in the psychological contract (Zhao et al., 2007). There is evidence that PCB can have long-term repercussions for organizations. Specifically, PCB has been associated with employee mistrust, negative work attitudes and behaviors, and poor job performance (e.g., Bal et al., 2008; Balogun et al., 2018; Bordia et al., 2008; Cassar and Briner, 2011; Zhao et al., 2007).

Our study examines the relationship between PCB and organizational commitment and whether job embeddedness and leader-member exchange (LMX) mediate this relationship. Job embeddedness describes an individual’s “stuckness” in a job due to how well he or she fits into the organization, the links established in or with the organization, and the sacrifices made for the organization (Mitchell et al., 2001). As a relational construct, LMX represents the quality of relationship between employees and their immediate supervisors (Graen and Uhl-Bien, 1995). Drawing on social exchange and conservation of resources theories, we argue that PCB communicates a lack of reciprocity from employers, which constitutes a source of resource drain that undermines employees’ bond with the organization and the quality of their relationship with supervisors, and ultimately weakens their desire to remain with the organization.

The study contributes to the educational management literature in three significant ways. First, the study constitutes an initial attempt at expanding research on job attitudes in the educational context by demonstrating how perceived imbalances in exchange relationships between teachers and employers shape teachers’ organizational commitment. More specifically, the study contributes to understanding the antecedents of teacher organizational commitment by examining the impact of PCB. While many studies have examined the influence of PCB on job attitudes in the organizational psychology and management fields, few studies have examined PCB in the educational context and little is known about its influence on the job attitudes of teachers. Across many countries, including Ghana, frequent labor unrests in the education sector orchestrated by perception of unfair treatment and lack of support for teachers, among others (see Amoako-Gyampah, 2018; Marychuk, 2020; Wills, 2020), underscore the need to understand how PCB influences job attitudes in educational organizations.

Second, our study contributes to the educational management literature by examining mechanisms through which PCB exerts its influence on teachers’ organizational commitment. Specifically, we examine job embeddedness and LMX as mediators of the relationship between PCB and organizational commitment. Although progress has been made in exploring the mechanisms linking PCB to job outcomes in the organizational psychology literature, most studies focused on affective responses as mediators. Our study, thus, responds to calls by other scholars for research that explores additional pathways through which PCB exerts its influence on job outcomes (e.g., Lv and Xu, 2018).

Finally, by drawing on data from Ghana, this study contributes to efforts towards extending research on PCB and job attitudes to sub-Saharan Africa. Ghana can be described
as collectivistic in terms of cultural orientation and has a relatively high level of unemployment. There is evidence to suggest that contextual factors may influence employees’ responses to PCB. Thomas et al. (2003) proposed that employees’ interpretation of and response to PCB is shaped by both cognitive and motivational mechanisms represented in their culture. For example, in collectivistic societies, work is regarded as a means to support family welfare (Hofstede et al., 2010). Consequently, PCB may trigger negative attitudinal responses, especially when it is associated with loss of economic benefits (Kickul et al., 2004). Moreover, it has been argued that economic conditions, especially levels of unemployment, prevailing in a country influence individuals’ tolerance of adverse experiences at the workplace (Annor and Amponsah-Tawiah, 2020). In countries with high unemployment rates, employees might react less negatively to PCB due to lack of alternative jobs. To date, most studies on the influence of PCB on organizational outcomes have been done in Western and developed countries with only few studies from sub-Saharan Africa (e.g., Balogun et al., 2018).

Theoretical background and hypotheses

PCB and organizational commitment

Organizational commitment is viewed as “a psychological state that characterizes the employee’s relationship with the organization, and has implications for the decision to continue or discontinue membership in the organization” (Meyer and Allen, 1991, p. 67). Meyer and Allen (1991) conceptualized organizational commitment as subsuming three dimensions: affective, continuance, and normative commitment. Affective commitment represents employees’ desire to continue employment with an organization due to their “emotional attachment to, identification with, and involvement in the organization” (Meyer and Allen, p. 67). Continuance commitment represents employees’ desire to continue working with their employers due to the perceived cost associated with doing the contrary, whereas normative commitment describes employees’ felt indebtedness to the employer that binds them to stay due to a moral imperative.

Social exchange theory (SET) provides a basis for the proposed relationship between PCB and organizational commitment. SET explains human interactions as an exchange process in which individuals seek to reduce costs and maximize benefits (Blau, 1964). Underpinned by the norm of reciprocity, SET suggests that employees recompense positive experiences at the workplace with affirmative work-related behaviors and attitudes (Parzefall and Salin, 2010). Conversely, employers’ failure to meet their obligations elicits negative reactions from employees (Coyle-Shapiro and Neuman, 2004). As employees strive to maximize gains in all relationships, disparities in any employment relationship would trigger the need to adjust the relational process to achieve equilibrium where individuals’ inputs would equal their outputs (Coyle-Shapiro and Neuman, 2004). By reneging on the psychological contract, employers communicate a lack of commitment to their employees, which adversely affects the employees’ attitudes (Conway et al., 2014).

Most studies on the relationship between PCB and organizational commitment have focused on affective commitment, with evidence suggesting that PCB is associated with decreased commitment (e.g., Antonaki and Trivellas, 2014; Galić et al., 2016; Zhao et al., 2007). Few studies have examined PCB in relation to the three dimensions of organizational commitment with results showing diverse influences of PCB on the dimensions of commitment. For instance, Cassar and Briner (2011) found a significant negative relationship between PCB and affective commitment but not for continuance commitment. We extend these studies in the Ghanaian context with a focus on the three dimensions of organizational commitment, and thus hypothesize that:

H1. PCB will be negatively related to affective, continuance and normative commitment.
Mediating role of job embeddedness
Job embeddedness reflects individuals’ tendencies to remain in an organization even in the face of better opportunities (Mitchell et al., 2001). Mitchell et al. (2001) conceptualized job embeddedness as consisting of three components: fit, which represents the degree to which a person’s abilities and interests are aligned with organizational goals and rewards; links, which denote employees’ connections with coworkers and activities in the organization; and sacrifice, which reflects the benefits and rewards obtained from being employed in an organization that are likely to be forfeited upon leaving the organization. Generally, job embeddedness is divided into organizational embeddedness and community embeddedness. Organizational embeddedness denotes the entities or resources within the workplace that keep employees hitched to their positions, while community embeddedness denotes the entities or resources in the employees’ community and personal lives that hold them bound geographically (Mitchell et al., 2001). We focused on organizational embeddedness, because it tends to have stronger relationship with organizational outcomes compared to community embeddedness (e.g., Mallol et al., 2007).

We draw on the conservation of resources (COR) theory as the basis for the proposed mediating role of job embeddedness. Central to the COR theory is the assumption that people endeavor to acquire, safeguard, and maintain resources, which refer to “those objects, personal characteristics, conditions, or energies that are valued” (Hobfoll, 1989, p. 516). The theory postulates that stress arises when fundamental resources are threatened by loss, when they are lost, or when gaining such resources proves futile after a significant effort (Hobfoll, 1989). Stress emanating from resource depletion might instigate withdrawal behaviors that enable individuals to forestall further resource loss (Halbesleben et al., 2014). PCB can be considered as a source of resource drain for employees, because obligations concerning delivery of valued resources (e.g., promotion, salary increase, training) are not fulfilled (Kiazad et al., 2014). The strain associated with the experience of PCB might also require considerable emotional effort to manage (Deng et al., 2018). Employees may respond to the stress associated with PCB by withdrawing positive work behaviors and attitudes because they feel they do not fit in the organization, their links have been severed and they have no favorable outcomes for their sacrifices to the organization. As the forces that connect employees to the organization weaken, they may feel the need to reconsider their attachment to the organization.

From the preceding arguments, we expect that employees who experience PCB will have lower job embeddedness, and therefore exhibit negative attitudes toward the organization. Few studies have investigated the mediating role of job embeddedness in the relationship between certain job characteristics and job outcomes. For example, Holtom et al. (2012) found that job embeddedness partially mediated the link between negative shocks and job search behaviors. Similarly, Karatepe and Ngeche (2012) found the effects of work engagement on turnover intentions and job performance to be partially mediated by job embeddedness. However, little is known about how job embeddedness might mediate the relationship between PCB and employees’ organizational commitment. Drawing on the COR theory and previous research, we hypothesize that:

H2. Job embeddedness will mediate the relationship between PCB and organizational commitment (i.e. affective, continuance and normative).

Mediating role of LMX
LMX represents the quality of interpersonal relationships between employees and their supervisors, which varies on a continuum from low to high quality relationships (Graen and Uhl-Bien, 1995). High-quality LMX relationships involve more exchanges of efforts, resources, and support between leaders and subordinates, and are characterized by mutual fondness, professional respect, contributory behaviors and loyalty (He et al., 2017).
In contrast, low-quality LMX relationships are characterized by negligible exchange of resources, efforts, and support between the parties involved, and often do not extend beyond contractual stipulations (Le Blanc and González-Romá, 2012). From a social exchange perspective, high-quality exchange relationships obligate individuals to reciprocate by demonstrating positive attitudes towards the organization. Accordingly, the quality of LMX has a significant influence on organizational commitment (Eisenberger et al., 2010).

Although psychological contract involves exchanges between an employee and the organization, PCB has the potential to influence the quality of exchange relationship between employees and their immediate supervisors. For many employees, immediate supervisors are considered as representations of the organization because of their instrumental role in “determining outcomes such as salary increases and bonuses, as well as in providing career advice, task and training opportunities, emotional support, and information” (Sun et al., 2013, p. 217). Consequently, employees who feel unfairly treated by the organization may generalize such experiences to their supervisors, which could undermine the quality of subordinate-supervisor relationship (Tziner et al., 2017). Supporting this argument, Tziner et al. (2017) found a negative relationship between PCB and LMX. As LMX decreases due to the organization’s failure to fulfill its obligations, employees may experience decreased sense of obligation to reciprocate with positive attitudes towards the organization. Accordingly, it is expected that PCB would undermine the quality of LMX relationship, which would have implications for employees’ organizational commitment. Thus, it is hypothesized that:

H3. LMX will mediate the relationship between PCB and organizational commitment (i.e., affective, continuance and normative).

The proposed theoretical model for the study is shown in Figure 1.

Methods
Participants and procedure
We collected data from teachers conveniently sampled from private and public basic schools in the Greater Accra region of Ghana. Participants were lead teachers who had worked for not less than a year. We obtained ethics clearance from the Ethics Committee for the Humanities, University of Ghana, and obtained permission from the municipal education directorate and the heads of the respective schools prior to data collection.

Participants received an envelope containing a cover letter that introduced the researchers and the purpose of the study, a structured questionnaire, and a consent form. Written informed consent was obtained from each participant and participation in the study was entirely voluntary. Participants were asked to return the questionnaires in sealed envelopes after completion. In all, 500 questionnaires were distributed out of which 333 were returned. Thirty-five questionnaires were excluded because they were incomplete. Thus, 298 questionnaires with complete data from participants were retained for analysis, yielding a response rate of 59.6%. Table 1 presents a summary of the participants’ demographic characteristics. The participants were aged between 20 and 64 years (M = 37.70; SD = 7.99) and 50.7% were males. A slight majority of the participants (53.7%) worked in public schools and the rest worked in private schools. The participants had worked as teachers in their current schools for at least one year, with average job tenure of 4.17 years (SD = 3.89). Majority of the participants were married (57.4%), and most were Christians (87.6%).

Measures
PCB was measured with five items developed by Robinson and Wolfe Morrison (2000). Responses were rated on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). A sample item on the scale is “I have not received everything promised to me in exchange for my contributions.”
Organizational commitment was measured using an 18-item instrument developed by Meyer et al. (1993), with six items measuring each dimension of commitment. Responses were rated on a seven-point Likert scale ranging from strongly disagree (1) to strongly agree (7). Sample items include: “This school has a great deal of personal meaning for me” (affective commitment).
commitment); “I feel that I have too few options to consider leaving this school” (continuance commitment); and “This school deserves my loyalty” (normative commitment).

LMX was measured with seven items developed by Graen and Uhl-Bien (1995). A sample item is “How would you characterize your working relationship with your supervisor” (1 = extremely ineffective; 5 = extremely effective). Each item was rated on a five-point scale as shown in the sample item.

Job embeddedness: We measured the three dimensions of job embeddedness with an instrument developed by Mitchell et al.’s (2001). Sacrifice was measured with 10 items (e.g., “The perks on this job are outstanding”). Fit was measured with nine items (“I fit with the school’s culture”). For both sacrifice and fit, responses were made on a seven-point Likert scale ranging from strongly disagree (1) to strongly agree (7). Links was measured with seven items that required respondents to indicate the length of time (e.g., “How long have you been in your present position”) or the number of engagements they have in their organization (“How many work committees are you on”). Job embeddedness is a formative construct (Mitchell et al., 2001); hence, we created a global measure by averaging the mean scores for the three dimensions of the construct.

Control Variables: Age, sex, sector of employment and job tenure were included as control variables. Previous research suggests that these variables have influence on individuals’ responses to PCB and formation of exchange relationships (e.g., Adams et al., 2014; Bal et al., 2008; Eisenberger et al., 2010).

Analytical strategy
The study’s hypotheses were tested using structural equation modeling with maximum likelihood estimation procedure in AMOS 21.0. First, we examined the reliability of the scale items and conducted confirmatory factor analysis (CFA) to examine the distinctiveness of the constructs in the study. PCB, LMX, and the three dimensions of organizational commitment were treated as latent variables. Since job embeddedness is conceptualized as a formative construct, we included it in our modeling as a single observed variable. To enhance sample-to-indicator ratio due to the relatively small sample used in the study and to minimize problems with random measurement errors (Matsunaga, 2008), we created parcels for latent variables measured with more than five items. Specifically, with the exception of PCB, which was measured with five items, three parcels were created for each of LMX, affective commitment, continuance commitment and normative commitment following item-parceling procedures suggested by Little et al. (2007). We specified a five-factor measurement model and then compared this model to alternative intuitively plausible measurement models to determine the best-fitting model. In addition to the chi-square statistic, we followed cut-offs suggested by Marsh et al. (2004) for alternative fit indices including the comparative fit index (CFI), the Tucker–Lewis index (TLI), the standardized root mean square residual (SRMR), and the root mean square error of approximation (RMSEA) in assessing model fit. Model comparisons were based on the chi-square difference test. Following the CFA, we conducted descriptive statistics and bivariate correlations for the variables in the study. Finally, we tested the hypothesized structural model specifying direct and indirect relationships between PCB and the dimensions of organizational commitment.

Results
Prior to forming the item parcels for conducting the CFA, we estimated the reliability of the items measuring the latent variables in the study based on Cronbach’s alpha. The estimates indicate that the items had acceptable reliability. Specifically, the alpha coefficients for affective, normative, and continuance commitment were 0.90, 0.64, and 0.86 respectively. Likewise, the alpha coefficients for PCB and LMX were 0.81 and 0.75 respectively.
As indicated earlier, job embeddedness is a formative construct, and it is thus, not amenable to assessment of reliability based on Cronbach’s alpha (Mitchell et al., 2001).

Results for the CFA assessing the fit of the measurement models are presented in Table 2. The hypothesized five-factor measurement model demonstrated acceptable fit to the data ($\chi^2 (94) = 229.82, p < 0.001$; CFA = 0.937; TLI = 0.920; SRMR = 0.068; RMSEA = 0.070). Compared to an alternative three-factor model ($\Delta \chi^2 (7) = 205.29, p < 0.001$) in which indicators for all the dimensions of commitment were combined, and a one-factor model ($\Delta \chi^2 (10) = 939.66, p < 0.001$) in which the indicators for all the five constructs were combined, the five-factor measurement model demonstrated a better fit to the data. These results provide evidence for the distinctiveness of the constructs in the study.

Descriptive statistics and bivariate correlations among the variables in the study are presented in Table 3. Means and correlations for the latent variables were computed based on imputed factor scores from the CFA. PCB correlated negatively with job embeddedness, LMX and the three dimensions of organizational commitment. Job embeddedness was positively correlated with affective, normative, and continuance commitment. LMX was significantly correlated with affective and normative commitment but not continuance commitment. Among the demographic variables, only sector of employment was significantly associated with organizational commitment; teachers in private schools reported higher levels of affective, continuance, and normative commitment than teachers in public schools. We therefore included sector of employment in the specification of the hypothesized structural model.

As shown in Table 2, the hypothesized structural model demonstrated acceptable fit to the data ($\chi^2 (121) = 268.78, p < 0.001$; CFI = 0.935; TLI = 0.918; SRMR = 0.066; RMSEA = 0.064). Figure 2 shows standardized path coefficients for the structural model. PCB was negatively related to affective commitment ($\beta = -0.23, p < 0.05$) and normative commitment ($\beta = -0.40, p < 0.001$), but was not significantly related to continuance commitment ($\beta = -0.14, p > 0.05$). Thus, Hypothesis 1 received partial support. PCB was also negatively related to job embeddedness ($\beta = -0.21, p < 0.01$) and LMX ($\beta = -0.21, p < 0.01$). Job embeddedness was positively related to affective commitment ($\beta = 0.15, p < 0.05$), continuance commitment ($\beta = 0.19, p < 0.01$) and normative commitment ($\beta = 0.18, p < 0.01$). Likewise, LMX was positively related to affective commitment ($\beta = 0.45, p < 0.001$) and normative commitment ($\beta = 0.31, p < 0.001$).

We used the SEM test of significance of indirect effects to test the hypothesized indirect effects, and estimated the confidence intervals for the indirect effects by creating 5,000 bootstrap samples using the bias-corrected percentile method. Indirect effects are deemed significant if the 95% confidence interval (CI) excludes zero. The standard estimates for the indirect effects of PCB on affective, continuance, and normative commitment were $-0.12$ (95% CI: $-0.20$ to $-0.06$), $-0.05$ (95% CI: $-0.09$ to $-0.01$), and $-0.10$ (95% CI: $-0.16$ to $-0.05$) respectively. These results suggest that PCB had significant indirect effects on affective, continuance, and normative commitment through both job embeddedness and LMX.

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>TLI</th>
<th>SRMR</th>
<th>RMSEA</th>
<th>$\Delta \chi^2$</th>
<th>$\Delta df$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement models</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Five-factor model</td>
<td>229.82***</td>
<td>94</td>
<td>0.937</td>
<td>0.920</td>
<td>0.068</td>
<td>0.070</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Three-factor model</td>
<td>435.11***</td>
<td>101</td>
<td>0.846</td>
<td>0.817</td>
<td>0.064</td>
<td>0.106</td>
<td>205.29***</td>
<td>7</td>
</tr>
<tr>
<td>One-factor model</td>
<td>1169.48***</td>
<td>104</td>
<td>0.508</td>
<td>0.432</td>
<td>0.137</td>
<td>0.186</td>
<td>939.66***</td>
<td>10</td>
</tr>
<tr>
<td>Structural model</td>
<td>268.78***</td>
<td>121</td>
<td>0.935</td>
<td>0.918</td>
<td>0.066</td>
<td>0.064</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

Note(s): CFI = comparative fit index; TLI = Tucker–Lewis Index; SRMR = standardized root mean square residual; RMSEA = root mean square error of approximation; ***$p < 0.001$

Table 2. SEM results for measurement and structural models ($n = 298$)
### Table 3.
Means, standard deviation, and bivariate correlations of study variables (n = 298)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sex</td>
<td>1.49</td>
<td>0.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Age</td>
<td>37.70</td>
<td>7.99</td>
<td>0.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Sector of work</td>
<td>1.46</td>
<td>0.50</td>
<td>-0.20**</td>
<td>-0.21**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Job tenure (years)</td>
<td>4.17</td>
<td>3.89</td>
<td>-0.15**</td>
<td>0.26**</td>
<td>0.28**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Job embeddedness</td>
<td>4.95</td>
<td>1.19</td>
<td>-0.02</td>
<td>0.41**</td>
<td>0.05</td>
<td>0.53**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Normative commitment</td>
<td>3.01</td>
<td>0.81</td>
<td>-0.01</td>
<td>0.00</td>
<td>0.25**</td>
<td>0.02</td>
<td>0.35**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Continuance commitment</td>
<td>2.76</td>
<td>0.83</td>
<td>-0.05</td>
<td>-0.06</td>
<td>0.28**</td>
<td>0.02</td>
<td>0.23**</td>
<td>0.62**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>8. Affective commitment</td>
<td>3.70</td>
<td>0.81</td>
<td>-0.06</td>
<td>0.04</td>
<td>0.12*</td>
<td>0.05</td>
<td>0.34**</td>
<td>0.67**</td>
<td>0.25**</td>
<td>-</td>
</tr>
<tr>
<td>9. LMX</td>
<td>3.20</td>
<td>0.67</td>
<td>-0.09</td>
<td>0.01</td>
<td>0.02</td>
<td>0.10*</td>
<td>0.31**</td>
<td>0.50**</td>
<td>0.15**</td>
<td>0.61**</td>
</tr>
<tr>
<td>10. PCB</td>
<td>2.45</td>
<td>0.97</td>
<td>-0.01</td>
<td>0.14**</td>
<td>-0.42**</td>
<td>-0.04</td>
<td>-0.21**</td>
<td>-0.56**</td>
<td>-0.34**</td>
<td>-0.40**</td>
</tr>
</tbody>
</table>

**Note(s):** LMX = leader-member exchange; PCB = psychological contract breach; Sex (male = 1, female = 2); sector of work (public = 1; private = 2); *p < 0.05, **p < 0.01
Since AMOS does not report estimates for specific indirect effects in models with parallel mediator variables, we determined the specific indirect effects for job embeddedness and LMX with Sobel tests (see Table 4). Job embeddedness significantly mediated the relationship between PCB on the one hand and affective commitment \((z = -2.06, p < 0.05)\), continuance commitment \((z = -2.09, p < 0.05)\) and normative commitment \((z = -2.27, p < 0.05)\) on the other. These results provide support for Hypothesis 2. Similarly, LMX significantly mediated the relationship between PCB on the one hand and affective commitment \((z = -2.79, p < 0.01)\) and normative commitment \((z = -2.61, p < 0.05)\) on the other. However, LMX did not significantly mediate the relationship between PCB and continuance commitment. Thus, Hypothesis 3 was partially supported.

**Alternative model testing**

Although our hypothesized structural model was theoretically grounded, there is the possibility that other alternative models may fit the data equally well. A theoretically plausible alternative model is that PCB would mediate the links from LMX and job embeddedness to organizational commitment. We tested this alternative model and

### Table 4.

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Mediating effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCB – job embeddedness – affective commitment</td>
<td>(z = -2.06, p &lt; 0.05)</td>
</tr>
<tr>
<td>PCB – job embeddedness – continuance commitment</td>
<td>(z = -2.09, p &lt; 0.05)</td>
</tr>
<tr>
<td>PCB – job embeddedness – normative commitment</td>
<td>(z = -2.27, p &lt; 0.05)</td>
</tr>
<tr>
<td>PCB – LMX – affective commitment</td>
<td>(z = -2.79, p &lt; 0.01)</td>
</tr>
<tr>
<td>PCB – LMX – continuance commitment</td>
<td>(z = -0.32, p &gt; 0.05)</td>
</tr>
<tr>
<td>PCB – LMX – normative commitment</td>
<td>(z = -2.61, p &lt; 0.01)</td>
</tr>
</tbody>
</table>

**Note(s):** PCB = psychological contract breach; LMX = leader-member exchange
compared it to our hypothesized structural model. Since the two models are non-nested, model comparison was based on the Akaike information criterion (AIC) and the Bayesian information criterion (BIC), with smaller values indicating a better fitting model. Although the alternative model demonstrated acceptable fit to the data ($\chi^2 (119) = 266.041, p < 0.001; \text{CFI} = 0.936; \text{TLI} = 0.917; \text{SRMR} = 0.065; \text{RMSEA} = 0.065$), it had slightly larger AIC (370.04) and BIC (562.29) values than the hypothesized model (AIC = 368.76; BIC = 553.63). On the basis of model parsimony, our hypothesized model was considered a better fit to the data than the alternative model.

Discussion
Underpinned by SET and COR theory, we formulated and tested a model to examine how PCB influences organizational commitment within the educational context. Based on data from teachers in public and private basic schools in Ghana, we found that PCB is directly related to affective and normative commitment. Furthermore, both job embeddedness and LMX mediated the influence of PCB on affective and normative commitment while only job embeddedness mediated the influence of PCB on continuance commitment. The theoretical and practical implications of these findings are discussed in the succeeding sub-sections.

Theoretical implications
This study advances prior research on teachers’ job attitudes by demonstrating the importance of employer-employee exchanges to sustaining teachers’ affective and normative commitment to the organization. From a social exchange perspective, teachers feel a sense of obligation to reciprocate when they perceive that they are fairly treated by their employers. Thus, PCB communicates employers’ lack of commitment to the exchange relationship. In response, teachers may feel betrayed, lose trust, and feel less obligated to the organization (Bal et al., 2008), which results in diminished emotional attachment and decreased sense of indebtedness to the organization (Conway et al., 2014). The results of this study are consistent with other studies outside the educational context that found PCB to be negatively related to affective and normative commitment (e.g., Antonaki and Trivellas, 2014; Conway et al., 2014; Zhao et al., 2007).

Contrary to our expectation, we found no statistically significant direct relationship between PCB and continuance commitment. This finding may be explained by the labor market context in Ghana, which is characterized by high unemployment and, particularly for teachers, lack of job mobility. Thus, teachers may be threatened by availability of job options and financial constraints, among others, and they may choose to stay with their employers even when they experience PCB. The finding underscores the importance of contextual factors in shaping employees’ responses to PCB. It is also possible that the emotional experiences accompanying PCB have stronger immediate influences on employees’ affective bonds with the organization and their sense of moral imperative to stay with the organization. Such emotional experiences may have less influence on continuance commitment, which is based on employees’ awareness of the cost associated with leaving the organization.

Our study sheds light on job embeddedness as a mechanism through which PCB exerts its negative influence on teachers’ organizational commitment. Job embeddedness significantly mediated the relationship between PCB and all the three dimensions of organizational commitment. From a COR theory perspective, PCB constitutes a stressor, which threatens organization-based resources available to employees (Lapointe et al., 2013). The loss of essential resources reduces employees’ perceptions of fit, links and sacrifices in the organization, which results in negative job attitudes such as decreased commitment to the organization. This finding extends previous studies (Holton et al., 2012; Karatepe and
Ngeche, 2012) in which job embeddedness mediated the relationship between some job situations such as LMX, work engagement, and job satisfaction and outcomes such as turnover intentions and job performance. It is important to emphasize that although PCB had no significant direct relationship with continuance commitment, its effect seems to be largely indirect through job embeddedness. Thus, it seems that PCB might undermine the commitment of teachers in so far as they perceive that resources that bind them to the organization are diminished due to employers’ failure to fulfill their promised obligations.

Our study also highlights the importance of LMX in linking PCB to organizational commitment. Psychological contract typically involves employers and employees as the main parties (Rousseau, 1989). However, to the extent that supervisors mostly represent the employer and execute the employers’ promises to employees, they may be seen as embodying the identity of the employer (Eisenberger et al., 2010; Lapointe et al., 2013). Thus, teachers may attribute the occurrence of PCB to supervisors, and this can undermine the quality of relationship they have with their supervisors (Tziner et al., 2017). As the quality of relationship between teachers and supervisors worsens, the former might feel less obligated to reciprocate with positive attitudes towards the latter and the organization. Consistent with extant leadership studies in education (e.g., Ford et al., 2019; Hulpia et al., 2011), this observation underscores the importance of interpersonal relations, especially supervisor-subordinate relationships in shaping teachers’ job attitudes. While the finding that PCB is negatively related to LMX also corroborates prior research (e.g., Tziner et al., 2017), to the best of our knowledge, the mediating role of LMX in the relationship between PCB and organizational commitment has not been previously examined.

Limitations and future research
The study has a number of limitations that are worth acknowledging. First, the cross-sectional nature of the study limits our ability to draw causal inferences from our findings. For instance, even though we found PCB to be associated with lower levels of organizational commitment, it is also possible that teachers who are less committed are more likely to perceive high PCB. Moreover, although our model specifying LMX and Job embeddedness as mediators of the relationship between PCB and organizational commitment was theoretically derived, an alternative model involving a repositioning of PCB as a mediator fitted the data equally well. The empirical results for the alternative model, though not inconsistent with extant literature (e.g., Hill et al., 2016), point to the possibility of bidirectional relationships among the variables in this study, which would need further exploration using longitudinal designs.

Second, the reliance on self-report data, though the nature of the variables warranted its use, raises issues concerning common-method bias. While PCB is typically examined from employees’ perspective, additional data could be obtained from supervisors on constructs such as LMX to minimize common-method bias. Furthermore, the study was based on teachers within a single municipality, which limits the extent to which the findings could be generalized to teachers and other groups of workers in the education sector across different geographical settings in the country. Thus, future research in the Ghanaian context should expand the analysis beyond a single municipality and include other categories of educational workers to enhance generalizability.

Finally, the differential impact of PCB on affective, normative, and continuance commitment suggests the need to explore potential moderators of these relationships. In particular, the inclusion of school-level variables such as ethical climate and organizational politics as moderators would shed light on the boundary conditions within which PCB exerts its influence on job attitudes. We also suggest that future research explores the influence of PCB on more education-specific outcomes (e.g., teacher efficacy, teacher performance, student outcomes), which were not included in the present study. This would help sharpen our understanding of the impact of PCB in the educational context. Again, given the demonstrated impact of PCB on
commitment among teachers, we suggest that future studies examine antecedents of PCB in the educational context. This would not only enhance our understanding of psychological contract formation and the circumstances that give rise to its breach, but could also inform policies aimed at minimizing the occurrence of PCB in the educational context.

Practical implications
As one of the first studies to empirically examine the construct of PCB in the educational field, the study has important implications for policy makers and administrators. Our findings suggest that teachers tend to exhibit lower affective bond and diminished sense of indebtedness to the organization when they perceive that their employers have reneged on their part of the psychological contract. Reduced commitment among teachers may impose considerable costs on educational institutions as it may trigger other undesirable work outcomes (Jing and Zhang, 2014; McHerney et al., 2015). While some teachers may express the desire to remain on the job in the face of PCB, perhaps due to lack of employment alternatives, this tendency could be detrimental to the organization. Such teachers may harbor high turnover cognitions and exhibit negative workplace behaviors (Taing et al., 2011).

It therefore behooves leaders and policy makers in the educational field to institute measures to address PCB. One approach would be to conduct realistic job previews during the recruitment and selection of teachers so as to clarify expectations and obligations and also to diffuse unrealistic ones. Over time, periodic surveys or boot camps could be implemented to ascertain any changes in teachers’ expectations, clarify them, reiterate employers’ obligations to them and announce any modifications in such obligations. This would help keep teachers and their employers in sync and informed of developmental changes as well as provide feedback to employers on how well they are fulfilling their obligations.

Our findings also highlight the need for employers and educational leaders to be proactive in dealing with the occurrence of PCB by providing tangible reasons for the breach to restore trust. Robinson and Wolfe Morrison (2000) suggest that a fair knowledge and understanding of the conditions that accounted for the breach is likely to assuage victims and alter their responses to it. Employers could also offer compensations to teachers for whatever they lost (due to the breach) using other valuable or appreciable means (Bordia et al., 2008). Moreover, given the role of LMX in linking PCB to teachers’ organizational commitment, supervisors such as school principals and heads of departments could be provided with concrete guidelines and training on how to manage teachers’ expectations and respond to perceptions of breach (Lapointe et al., 2013).

Conclusion
This study has demonstrated that employers’ inability to fulfill their obligations to employees has significant potential costs for educational institutions in the form of negative employee job attitudes. The study’s findings suggest that PCB adversely affects teachers’ organizational commitment by undermining the quality of their relationship with supervisors and their degree of embeddedness in the organization. The study advances knowledge on the influence of PCB on organizational commitment by documenting the pathways through which PCB exerts its impact on commitment within the educational context. The findings of this study make it imperative for stakeholders in the educational sector, particularly in the Ghanaian context, to consider ways of reducing or eliminating PCB. To minimize perceptions of PCB, it is important for employers to make the obligations they owe to their employees explicit and commit to fulfilling such obligations.

References


For instructions on how to order reprints of this article, please visit our website: www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: permissions@emeraldinsight.com

Corresponding author
Francis Annor can be contacted at: fannor@ug.edu.gh