



UNIVERSITY OF LEEDS

This is a repository copy of *Linking transformational leadership to turnover intention in the public sector: The influences of engagement, affective commitment and psychological climate*.

White Rose Research Online URL for this paper:  
<http://eprints.whiterose.ac.uk/110268/>

Version: Accepted Version

---

**Article:**

Gyensare, MA, Kumedzro, LE, Sanda, MA et al. (1 more author) (2017) Linking transformational leadership to turnover intention in the public sector: The influences of engagement, affective commitment and psychological climate. *African Journal of Economic and Management Studies*, 8 (3). pp. 314-337. ISSN 2040-0705

<https://doi.org/10.1108/AJEMS-07-2016-0099>

---

© Emerald Publishing Limited 2017. This is an author produced version of a paper published in *African Journal of Economic and Management Studies*. Uploaded in accordance with the publisher's self-archiving policy.

**Reuse**

Unless indicated otherwise, fulltext items are protected by copyright with all rights reserved. The copyright exception in section 29 of the Copyright, Designs and Patents Act 1988 allows the making of a single copy solely for the purpose of non-commercial research or private study within the limits of fair dealing. The publisher or other rights-holder may allow further reproduction and re-use of this version - refer to the White Rose Research Online record for this item. Where records identify the publisher as the copyright holder, users can verify any specific terms of use on the publisher's website.

**Takedown**

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing [eprints@whiterose.ac.uk](mailto:eprints@whiterose.ac.uk) including the URL of the record and the reason for the withdrawal request.



[eprints@whiterose.ac.uk](mailto:eprints@whiterose.ac.uk)  
<https://eprints.whiterose.ac.uk/>

# **Linking transformational leadership to turnover intention in the public sector: The influences of engagement, affective commitment and psychological climate**

Michael Asiedu Gyensare and Lucky Enyonam Kumedzro  
Department of Business Education, University of Education, Winneba, Ghana

Mohammed-Aminu Sanda  
Department of Organisation & HRM, University of Ghana Business School, Legon, Ghana

Nathaniel Boso  
Leeds University Business School, Maurice Keyworth Building, University of Leeds, UK

## **Abstract**

**Purpose** – The purpose of this study is to examine how employee engagement and affective commitment mediate the relationship between transformational leadership and voluntary turnover intention. The study also investigates the moderating role of psychological climate in the relationship between affective organisational commitment and voluntary turnover intention.

**Design/methodology/approach** – This study employed a cross-sectional design as its framework. In addition, hierarchical linear modelling with bootstrapping analysis were conducted using data from a sample of 336 employees in a large public sector organisation in Ghana.

**Findings** – The results showed that transformational leadership positively influenced engagement, which was then negatively related to employee turnover intention. Further, employee engagement was found to mediate the link between transformational leadership and affective organisational commitment, whereas both employee engagement and affective organisational commitment were found to mediate the link between transformational leadership and voluntary turnover intention. Finally, psychological climate was found to moderate the link between affective commitment and voluntary turnover intention.

**Research limitations/implications** – Despite the practical significance of this study in lessening the turnover decision of employees, the study has some limitations. Most significantly, the sample size of this cross-sectional study was small and limited to employees from only one large public sector organisation in Ghana. Findings of this study could be generalised by using large samples from other sectors and geographical areas. Furthermore, future studies should consider positive outcomes such as OCB and innovative work behaviour to help extend our conceptual framework.

**Originality/value** – Overall, findings of this study provide tentative support to the proposition that employee engagement and affective commitment help to minimise the decision of employees to leave the organisation regardless of how they perceive the leadership style of their immediate supervisors. Most importantly, psychological climate which is referred to as individual employee perceptions of their work environment had a strong contingent effect on the negative relationship between affective commitment and turnover intention such that employees positive perception of the work environment weakens the link between commitment and turnover whereas a negative perception of the working environment strengthens the relationship between commitment and turnover. As a result, employees' positive perception of their work environment decreased their turnover intention decisions.

**Keywords** Transformational leadership, employee engagement, affective commitment, psychological climate, voluntary turnover intention, Ghana.

**Paper type** Research paper

## **Introduction**

“Leadership is the capacity to influence others through inspiration not manipulation” (Munroe, 2014, p.59).

Although the concept of leadership has been contested over the past decade (Grint, 1997, 2005; Tejada et al., 2001), empirical evidence shows that transformational leadership characterizes an effective form of leadership at the organisational, sectorial and national levels (Garcia-Morales et al., 2012; Gyensare et al., 2016; Howell and Avolio, 1993; Nemanich and Keller, 2007). For instance, the preference and predisposition of employees to remain in the organisation contribute enormously to workforce stability and organisational effectiveness. However, this decision is only feasible and pragmatic when employees feel satisfied with the leadership style being practiced in the organisation (Gyensare, 2013; Gyensare et al., 2016). For that reason, employees in both private and public organisations are more likely to remain with their organisations when managers instil in them pride, respect and trust them, treat them as individuals, and communicate high expectations with them which are all attributes of transformational leaders (Bass, 1990).

Despite many studies linking transformational leadership to voluntary turnover intention (Alexandrov et al., 2007; Burton and Peachey, 2009; Chang et al., 2013; Dimaculangan and Aguilin, 2012; Dupré and Day, 2007; Wells and Peachey, 2011), the mechanisms and processes that mediate the relationship between the aforementioned constructs is one area that researchers have grappled with over the past two decades. Besides, previous research has examined affective commitment and psychological climate as independent predictors of voluntary turnover intention (Biswas, 2011; Eby and Rothrauff-Laschober, 2012; Soane et al., 2012; Gyensare, 2013; Gyensare et al., 2016). Yet, it remains to be seen how affective commitment and psychological climate will interact with each other to influence voluntary turnover intention among employees in the public sector in Ghana. Additionally, few studies have examined whether multiple constructs sequentially mediate the link between transformational leadership and voluntary turnover intention. Underlining this research gap, Gyensare et al. (2016), stated that future research interest and ideas in studying complex mechanisms and processes between

transformational leadership and relevant work outcomes such as voluntary turnover intention should be encouraged in sub-Saharan Africa.

In view of that, our study examines the mechanisms and processes by which transformational leadership influences voluntary turnover intention by amalgamating two types of mechanisms and examining the sequential association between two mediators to enhance our understanding of the complex relationship between transformational leadership and voluntary turnover intention. The present study proposes that the effect of transformational leadership on voluntary turnover intention is achieved by means of two mechanisms: affective commitment and employee engagement. More specifically, we argue that employees who perceive their leaders as being more transformational exhibit a strong emotional attachment to and identification with the organisation which enhance their levels of engagement thereby lessening their voluntary quitting intentions. Affective organisational commitment is an employee's emotional attachment to, identification with and involvement with the organisation (Meyer and Allen, 1991). For instance, Meyer et al.'s (2002) meta-analytic study revealed that among the three components of commitment, affective commitment had the strongest and most favourable correlations with organisation and employee-related outcomes. Employee engagement is defined as the extent to which workers expend themselves "physically, cognitively, and emotionally" during the performance of their tasks in the workplace (Kahn, 1990, p. 692), and the construct has been linked to meaningful organisational outcomes such as affective commitment (Saks, 2006) and turnover intention (Biswas, 2011; Harter et al., 2002). However, Shuck and Wollard (2010) posit that engagement is a positive state of energy directed towards positive organisational outcomes.

By integrating transformational leadership, affective commitment and engagement literatures, the present study aims to contribute to the extant literature in two ways. First, the current research extends previous work on transformational leadership (e.g., Gyensare et al., 2016) by highlighting the mediating roles of affective commitment and employee engagement. We propose that employees' perceptions and experiences of transformational leadership behaviour do not

directly relate to their voluntary turnover intention in the organisation. Instead, the relationship might be transmitted through workers' affective commitment and engagement in organisations. Furthermore, our study also augments our understanding of employee engagement. For instance, engagement research has focused primarily on job resources and job demands as its principal antecedents (Crawford et al., 2010; Hakanen et al., 2008). However, we examined transformational leadership as a potential antecedent of engagement. Precisely, transformational leadership is expected to relate to affective commitment through employee engagement. In addition, unlike van Gelderen and Bik (2016) who hypothesized affective commitment to employee engagement relationship, we argue otherwise that employees who are rather emotionally attached to and involved with the organisation are more highly engaged than their colleagues which is consistent with Mercurio's (2015) affective commitment model. Finally, by exploring the interaction effect of affective commitment as well as psychological climate on voluntary turnover intention, we highlight the degree to which employees' perceptions and interpretations of their physical environment help shape their attitudinal and behavioural responses to the organisation.

Overall, our study contributes to the extant literature by empirically linking transformational leadership, engagement, affective commitment, psychological climate and turnover intention in an integrated model with a sample of 336 employees from a large public sector institution in Ghana. Results of our study also add to a more comprehensive understanding of transformational leadership as it relates to employee-related outcomes in the context of public institutions in a developing economy.

### **Theory and hypotheses**

This section first assesses the direct effect of transformational leadership on employee engagement, and also employee engagement on affective commitment. It then examines the direct and indirect influences among transformational leadership, employee engagement, affective commitment and voluntary turnover intention. Finally, the study investigates the

moderating role of psychological climate in the nexus between affective organisational commitment and voluntary turnover intention. The hypothesized model is illustrated in Figure 1.

-----  
Fixed **Figure 1** about here  
-----

#### Transformational leadership and employee engagement

Among the dimensions of the Multifactor Leadership Questionnaire, transformational leadership boasts of being the most theoretically and empirically research construct (Gyensare et al., 2016). Furthermore, Judge and Piccolo (2004) argued that transformational leadership has shown the highest overall validity in empirical studies than transactional and laissez-faire leadership styles.

According to Bass and Avolio (1994), transformational leadership is conceptualised into four key dimensions: idealised influence (leaders excite and arouse followers, such that followers emotionally identify with the vision and mission of the leader because such leaders are viewed as role models), inspirational motivation (provide followers with meaning and challenge in their work, which positively energizes them), intellectual stimulation (challenge followers to think critically and seek new ways to address issues, while also learning to question the leader), and individualised consideration (pay special attention to each follower's needs, expectations and development).

Transformational leaders enhance employees' sense of involvement and enthusiasm for work (Schneider et al., 2009) primarily through idealised influence and individualised consideration. Concerning idealised influence, when supervisors serve as exemplary role models, articulate a compelling vision and emotionally appeal to subordinates, they are strengthened and energized to work hard towards achieving the goals and objectives of the organisation (Shin and Zhou, 2003). This is because when leaders set themselves as role models for followers, followers' sense of values and contributions increase and thus engage their whole self (Rich et al., 2010) in their assigned task. To this end, Anitha (2014) and Wallace and Trinkka (2009) emphasise that engagement occurs naturally when leaders are inspirationally motivating. Another factor of transformational leaders that relates to employee engagement is individualised consideration. By

responding to followers' demands, giving personal attention and displaying care of individual differences, transformational leaders are able to develop a higher degree of satisfaction, involvement and enthusiasm for work among employees (Walumbwa et al., 2004). This can be explained using the social exchange theory (SET) (Blau, 1964). Based on the core concept of social exchange theory when leaders demonstrate genuine care and attention for each employee, they are more likely to stimulate positive leader-follower relationships to improve their sense of belonging to the organisation (Zhu et al., 2009). Thus, employees will perceive the work milieu as friendly and supportive and also reciprocate that gesture of care, respect and attention with a strong sense of involvement and passion in undertaking their assignments in the organisation.

Furthermore, research on the antecedents of engagement have focused primarily on job resources and demand (Bakker and Demerouti, 2007; Crawford et al., 2010; Rana et al., 2014), anti-sexual harassment practices (Jiang et al., 2015), corporate social responsibility (Ferreira and de Oliveira, 2014), HRD practices (Anitha, 2014) and continuance and normative commitments (Lau, 2011). Yet, the few studies on the positive nexus between transformational leadership and engagement have come mainly from Europe (Burch and Guarana, 2014; Breevaart et al., 2014; Breevaart et al., 2016; Vincent-Hoper et al., 2012), America (Hansen et al., 2014; Burch and Guarana, 2014), Asia (Song et al., 2012) and Australia (Ghadi et al., 2013) with similar empirical studies in Africa and for that matter Ghana generally lacking. Additionally, Macey et al. (2009) opined that organisations invest significant efforts and resources to attract and retain proactive, engaged and committed employees, hence the need for empirical research directed at identifying factors that best promote positive employee attitudes and behaviour in the public sector. Against the foregoing background and the identified knowledge gap, we expect and propose the following hypothesis.

H1. Transformational leadership is positively related to employee engagement.

Employee engagement and affective organisational commitment

Although there remains confusion, disagreement, and a lack of consensus regarding the meaning and distinctiveness of the engagement construct among academics and practitioners (Bakker et al., 2011; Saks and Gruman, 2014; Cole et al., 2012), the construct today is regarded as one of the most prevalent topic of interest in the field of management and organisational behaviour. Saks and Gruman (2014) captures the confusion surrounding the construct in two ways: (1) a lack of consensus on the actual meaning of engagement and (2) contentions over the validity of its measurement scales. Notwithstanding these confusions, engagement has been contended as the key to an organisation's success and competitive advantage (Macey et al., 2009; Rich et al., 2010). Furthermore, empirical evidence shows that organisations with engaged employees have higher shareholder returns, profitability, productivity and customer satisfaction (Crawford et al., 2010; Harter et al., 2002).

The concept of engagement became popular in the academic literature after Kahn's (1990) seminal study of the psychological conditions of personal engagement and disengagement at work. Kahn (1990) defined engagement as "the harnessing of organisation members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances" (p. 694). According to Kahn (1990), when individuals are engaged, they bring all three aspects of themselves – cognitive, emotional, and physical – in performing their work roles. Hence, to be engaged simply means that employees display their full selves within the roles they are expected to accomplish. On the other hand, when employees are disengaged, they decouple their selves from their assigned work roles (Kahn, 1990).

Building on Kahn's (1990) definition of engagement, Rich et al. (2010) indicated that when individuals are engaged they are investing not only their hands but also their heads and hearts in their performance. Hence, engagement is a more complete image of the self than other constructs such as job satisfaction and job involvement, which depicts a narrower aspects of the self. Another widely held definition of engagement according Saks and Gruman (2014) is provided by the Gallup organisation's Buckingham and Coffman (1999) who noted in their study that "the



right people in the right roles with the right managers drive engagement” (p. 248). The authors further argue that a fully engaged employee is one who could answer yes to all 12 questions on Gallup’s workplace questionnaire. As a result, we employed the Gallup workplace questionnaire in assessing the engagement of our respondents. In addition, Gallup researchers, Fleming and Asplund (2007, p. 2) went a step further and presented engagement as “the ability to capture the heads, hearts and souls of your employees to instil an intrinsic desire and passion for excellence”, thus adding a spiritual dimension to the previously established cognitive and emotional characteristics of engagement.

According to Gallup (2002) cited in Anitha (2014), there are three types of people: engaged employees, not engaged employees, and actively disengaged employees. Engaged employees are builders who consistently strive to give excellence within their roles. Not engaged employees focus on the tasks spelt out to them rather than the goals of the organisation. They do what they are told to do. Actively disengaged employees are dangerous individuals who not only do not perform well but also demotivate performers in the organisation. The above descriptions of the concept of engagement depict that an engaged employee is intellectually and emotionally bound with the organisation, feels passionately about its goals and is committed to live by its values.

Previous empirical studies have shown that engaged employees are emotionally attached to and involved with the organisation (Albdour and Altarawneh, 2014; Albrecht and Andreetta, 2011; van Gelderen and Bik, 2016; Scrima et al., 2014; Yalabik et al., 2015). For instance, using a sample 13,182 US military personnel, Jiang et al. (2015) found a significant positive effect of employee engagement on affective organisational commitment. Similarly, Field and Butendach (2011) in a study on 123 employees from a tertiary education institution in South Africa found a positive significant effect of engagement on affective organisational commitment. The authors concluded that organisations should carefully tailor their programmes to address the relationship between the constructs. However, with the exception of Field and Butendach’s (2011) findings, most of these studies have drawn their samples from Western organisations with similar research

required in sub-Saharan African. Based on the preceding discussion, we formulate the following hypothesis.

H2. Employee engagement is positively related to affective organisational commitment.

The influence of employee engagement and affective organisational commitment

The preceding discussion suggests that employee engagement is likely to mediate the relationship between transformational leadership and affective organisational commitment. For instance, given the significant influence of transformational leadership and the detrimental effect of poor workforce engagement on organisations, researchers have been exploring the mediating mechanisms through which transformational leadership is linked to work-related outcomes (Afsar et al., 2014; Gyensare et al., 2016; Walumbwa and Hartnell, 2011; Wang et al., 2014). Anitha (2014) emphasises that engagement occurs naturally when leaders are inspirationally motivating. Thus, through inspiration and acting as role models, transformational leaders are able encourage their employees to invest their complete and full self into the performance of their assigned roles (Rich et al., 2010) in the organisation. In addition, Walumbwa et al. (2004) stated that by responding to employees' demands and showing care and attention, transformational leaders are able to develop a high degree of happiness, passion and involvement for work among employees. This is in line with the assertion that a happy worker is an engaged worker and an engaged worker is a committed worker.

Recent studies have shown that engagement is positively related to affective commitment (e.g. van Gelderen and Bik, 2016; Jiang et al., 2015; Yalabik et al., 2015). Using a sample of 294 bankers from Jordan, Albdour and Altarawneh (2014) found a significant positive effect of engagement on all three dimensions of commitment. However, among the dimensions of commitment, engagement was found to be a strong predictor of affective commitment. Furthermore, in a meta-analysis on engagement and performance, Christian et al. (2011) found that engagement was distinctively different from job attitudes (job satisfaction, job involvement

and commitment). Christian and colleagues conclude that engagement is unique even though it shares [slightly] conceptual space with job attitudes. Also, Rich et al. (2010) in a study on the antecedents of engagement and job performance found that engagement fully mediates the antecedents–performance nexus. Extending this stream of research, we expect engagement to serve as mediator connecting transformational leadership to affective organisational commitment. The reason why engagement is connected to commitment is because high engaged workers are enthusiastic, passionate, emotionally attached to and involved with their specific assigned roles in the organisation. Consistent with the preceding arguments, we propose the following hypothesis.

H3. Employee engagement mediates the positive relation between transformational leadership and affective organisational commitment.

Drawing on both commitment (Meyer and Allen, 1991; Meyer et al., 2004) and engagement (Kahn, 1990) theories, we seek out to understand the indirect effect of affective commitment on voluntary turnover intention among a sample of employees drawn from a large public organisation in Ghana. We argue that engaged employees are less likely to quit due to their emotional attachment to, identification with and involvement with the organisation. This is consistent with the assertion of Rich et al. (2010) that engaged workers are intellectually and emotionally obligated and bound to the organisation and feel passionate about the organisation's goals and live by its values as well.

According to three-component model, “employees with strong affective commitment remain because they want to, those with strong continuance commitment because they need to, and those with strong normative commitment because they feel they ought to do so” (Meyer and Allen, 1991, p. 3). Consequently, employees' who are affectively committed are said to be more productive, less physically absent, and less likely to turnover (Mathieu and Zajac, 1990; Meyer and Allen, 1997). Affective organisational commitment goes a long way to explain employees' emotional attachment to the organisation because of its robustness in terms of its validity and reliability (Meyer et al., 2002; Solinger et al., 2008). Further, according to engagement theory (Khan, 1990), engagement could be experienced emotionally and cognitively and manifested

behaviourally. Thus, employees who are psychologically and emotionally engaged in their work experience less stress and fatigue which are considered as triggers of turnover intention. Thus, engagement is seen as a good mediator in the relationship between affective commitment and voluntary turnover intention.

Current empirical findings support the negative relationship between affective commitment and voluntary turnover intention (Gyensare et al., 2015; Gyensare et al., 2016). Meyer et al. (2002) in a meta-analytic study also found that affective commitment had a strong influence on employee turnover intention. Meyer and colleagues conclude that the more employees identify with their organisations values and goals, the less likely their quit intention. Similarly, in a cross-sectional study, Guntur et al. (2012) found that among the three components of commitment, affective commitment had the highest and strongest impact on employee turnover intention. Furthermore, as indicated above, positive relations exist between engagement and affective commitment (Christian et al., 2011; Scrima et al., 2014; Yalabik et al., 2015). However, the mechanism by which affective organisational commitment influence voluntary turnover intention needs further research attention especially within the context of a developing economy like Ghana. The discussions are summarized in the following hypothesis:

H4. Affective commitment mediates the negative relationship between employee engagement and voluntary turnover intention.

Previous research has generally indicated the indirect effect of transformational leadership on voluntary turnover intention. For example, Gyensare et al. (2016) based on affective commitment model (Mercurio, 2015) as the core essence of commitment found an indirect relationship between transformational leadership and turnover intention through affective commitment. In the same way, Hughes et al. (2010) cited in Gyensare et al. (2016) examined the relationship between leadership and followers quit intentions and alternative job search behaviours. They found that quality of leader-member exchange mediated the relations between followers' perception of transformational leadership behaviour and their voluntary turnover intention.

Although empirical findings support an indirect relationship between transformational leadership and voluntary turnover intention, most of these studies have used single mediator variables. However, we examine in this study multiple mediators in the transformational leadership and turnover intention nexus with samples drawn from a large public organisation in Ghana.

Following Walumbwa and Hartnell's (2011) approach, we anticipated in Hypothesis 3 that the relationship between transformational leadership and affective organisational commitment will be mediated by engagement. Also, Hypothesis 4 suggested that the relationship between engagement and turnover intention will be mediated by affective organisational commitment. By connecting employee engagement, transformational leadership presumably becomes an indirect antecedent to affective organisational commitment, which then affect voluntary turnover intention. We, therefore, propose our last mediation hypothesis from these two predictions as follows:

H5. Transformational leadership is indirectly related to voluntary turnover intention through the mediating influence of engagement and affective organisational commitment.

#### The influence of psychological climate

Climate as a psychological construct has received extensive research attention in management and psychology literatures regardless of the inconsistencies in its conceptualisation and ambiguity regarding its parameters. Research has shown that at the individual level, climate is conceptualised and studied as psychological climate while at the organisational level is regarded as organisational climate (Baltes et al., 2009). Consequently, psychological climate is an individual rather than an organisational attribute.

Psychological climate has been conceptualised as multidimensional (Brown and Leigh, 1996). Parker et al. (2003) claim that general acceptance of this conceptualisation is found in the literature. For instance, O'Neil and Arendt (2008) stressed that psychological climate is the spectacles through which employees understand their work environment. Furthermore, psychological climate has been operationalized as comprising five dimensions: autonomy at work (O'Neill and Arendt, 2008), supportive management (Brown and Leigh, 1996), reward and

recognition (Brown and Leigh, 1996; O'Neill and Arendt, 2008), self-expression (Brown and Leigh, 1996) and challenge (Brown and Leigh, 1996). In a meta-analytic study, Parker et al. (2003) defined psychological climate as “a molar construct comprising an employee’s psychologically meaningful representations of proximal organisational structures, processes and events” (p. 390). Hence, psychological climate refers to the perceptions individuals hold about aspects of their work environment for example organisational practices and procedures.

Although theory predicts that employees with a strong affective commitment remain because they want to, some contextual variables, psychological climate, may likely enhance their emotional attachment to, identification with and involvement with the organisation hence reducing their quit intentions. As a result, many businesses today have realised the importance of creating an engaging and motivating environment to help employees fully unfold their potential (Pfeffer, 1994; Shalley et al., 2000) so as to lessen their turnover intention. Further, research evidence shows that employees do not respond to the work environment spontaneously however their perception and interpretation of the environment are crucial in shaping their attitudinal and behavioural responses (James et al., 1978). Following psychological climate theory, we contend that employees are likely to exhibit high levels of affective commitment in a positive work environment with plenty of organisational resources. On the other hand, in a negative work environment with less motivation and diminished devotion to the organisation employees are more likely to quit their work.

Previous empirical studies have mainly shown the effect of psychological climate on voluntary turnover intention. For example, using data from a sample of 208 employees from a manufacturing company in the United State, O’Neil and Arendt (2008) established that all five dimensions of psychological climate perceptions correlated positively with affective commitment and negatively with voluntary turnover intention. Similarly, Biswas (2010) found a significant negative effect of psychological climate on voluntary turnover intention. Furthermore, in a study of 357 public sector employees from India, Biswas (2011) reported a positive effect of

psychological climate on job satisfaction and job involvement. Hence, empirical findings show that psychological climate is an imperative antecedent of a variety of individual and organisational-level outcomes.

From the foregoing discussions, it is apparent that psychological climate influences individuals' ability and willingness to work. Furthermore, positive psychological climate perceptions influences how employees involve themselves in their work which eventually impacts their cognitions and outputs. Thus, we expect psychological climate to interact with affective commitment to influence voluntary turnover intention.

H6. Psychological climate will moderates the negative relation between affective commitment and voluntary turnover intention.

## **Method**

### Participants and procedures

This cross-sectional survey drew samples of full-time employees from a large public sector organisation in Ghana. The choice of this organisation was based on the fact that employee turnover rate was staggering due to the poaching and job hopping of qualified and skilled employees. For example, the 2012 Annual Report and Financial Statements revealed a staff turnover rate of 10.22% and in 2014 rose to 12.37% (ADB, 2014). This increase precipitated the necessity to examine employee turnover intention in the organisation. Participants were assured of their anonymity and confidentiality before the commencement of the data collection exercise. With the help of two trained research assistants, we randomly distributed survey instruments to 450 non-managerial full-time employees and a total of 346 usable surveys were retrieved from the respondents. However, after excluding incomplete questionnaires, we were left with 336 fully completed survey instruments representing 75 percent response rate of our sample. The demographic characteristics of our respondents suggested that 53 percent of them were male. They had an average job tenure of 2.19 years ( $SD = 1.78$ ) with the organisation. Also, on the average, employees were 28.28 ( $SD = 4.78$ ) years old, 72.3 percent had bachelor degrees, and 70.2 percent were single whereas only 29.8 percent of the respondents were married.

## Measures

### Transformational leadership

Following previous research (Aryee & Chu, 2012; Bass & Avolio, 1995; Podsakoff et al., 1990), transformational leadership was assessed with five items from the Multifactor Leadership Questionnaire (MLQ Form 5x-Short; Bass & Avolio, 1995). Consistent with Kim (2014), Kim and Kim (2015), and Walumbwa et al. (2008), the five items were combined to form a composite transformational leadership score. Respondents were asked to indicate the frequency with which their supervisor(s) engaged in each of the items anchored on a 5-point scale ranging from 1 “not at all” to 5 “frequently, if not always.” Sample items included, “My manager articulates a vision” and “My manager provides an appropriate model”. The scale’s alpha reliability in this study is .90.

### Employee engagement

Employee engagement was assessed using the 12-item Gallup Organisation Q-12® scale (Harter et al., 2002) intended to capture employees’ sense of cognitive presence during work as well as their emotional connection to others in the workplace. Avery et al. (2007) indicated that the Q-12 measure has a solid conceptualisation and close correspondence with Kahn’s (1990) definition of engagement. For instance, several studies have included the Q-12 measure which has shown favourable reliability and validity (Jiang et al., 2015; Walumbwa et al., 2010; Zhu et al., 2009). Responses were anchored on a 5-point Likert scale ranging from 1 “*strongly disagree*” to 5 “*strongly agree*”. Sample items include, “I know what is expected of me at work” and “My supervisor seems to care about me as a person.” The scale’s alpha reliability in this study is .72.

### Affective organisational commitment

We assessed affective organisational commitment with a six-scale from Meyer and Allen (1997). These items assessed participants’ emotional attachment to and involvement with the organization. Responses were anchored on a 5-point Likert scale ranging from 1 “strongly disagree” to 5 “strongly agree.” Sample items include, “This organization has a great deal of



personal meaning for me” and “I do not feel emotionally attached to this organization” (reversed scored). The scale’s alpha reliability in this study is .78.

#### Psychological climate

Psychological climate was measured using a 21-item Psychological Climate Scale (PCS; Brown and Leigh, 1996). The PCS comprised of six factors, namely supportive management, role clarity, contribution, recognition, self-expression and challenge. Consistent with previous research (Biswas, 2010; Garner and Hunter, 2013) responses were averaged to form an overall psychological climate score and were anchored on a five-point Likert scale ranging from 1 “strongly disagree” to 5 “strongly agree”. Sample items from the PCS included ‘My boss gives me the authority to do my job as I see fit’, ‘Management makes it perfectly clear how my job is to be done’ and “I feel very useful in my job.” The scale’s alpha reliability for this study is .72.

#### Voluntary turnover intention

Employee intention to leave the job were measured using the scale developed by Colarelli (1984). The items are: ‘I frequently think of quitting my job’, ‘I am planning to search for a new job during the next 12 months’ and ‘If I have my own way, I will be working for this organization one year from now’ (reverse coded). All the three items were scored on a five point scale ranging from 1 strongly disagree to 5 strongly agree. The internal consistency reliability for turnover intention in the present study was .79.

#### Control variables

In addition to the substantive measures presented above, we included three control measures in our hypothesized study model. Because demographics might account for variance in voluntary turnover intention (Chang et al., 2013; Gyensare et al., 2015; Gyensare et al., 2016), we controlled for age, gender and tenure. Coding for the categorical control variable and explanation for the continuous control variables are shown in Table 3.

Since we used self-report measures, we anticipate the possibility of common method variance in our constructs. Hence, we followed several recommendations by Podsakoff et al. (2003) in

order to reduce the prospect of this method bias. First, we assured the non-managerial full-time employees of their anonymity and confidentiality. Second, we used a cover rubric to serve as psychological separation for the different constructs. Finally, we conducted a Harman single-factor test to ensure that common method variance (CMV) did not exist in our measures.

## **Results and Analysis**

All data analysis was performed with IBM SPSS version 20.0 for windows, LISREL 8.50 (Joreskog and Sorbom, 2006) and PROCESS macro in SPSS (Hayes, 2013). The results and analysis section deal with the validation of our measures, descriptive statistics and intercorrelations and hypothesis testing using hierarchical linear modelling and bias-corrected bootstrapping technique.

### Confirmatory factor analysis

Although most of the scales in this study have been validated in previous studies, one may question whether they were empirically distinct in our study. Thus, we conducted a confirmatory factor analysis (CFA) to verify the fit of our hypothesized model (see. Figure 1). The fit of the CFA model was evaluated based on chi-square ( $\chi^2$ ) goodness-of-fit test and four other fit indices recommended by Bagozzi and Yi (2012). Using a sample of 336 full-time non-managerial employees in a large public sector organisation, results of the confirmatory factor analysis shows that the hypothesized five-factor model (i.e. with items loading onto the corresponding factors of transformational leadership, employee engagement, affective commitment, psychological climate and voluntary turnover intention) had an excellent fit to the data. The chi-square and fit indexes were  $\chi^2$  (df = 94) = 175.14;  $\chi^2$ /df = 1.86; root mean square error of approximation (RMSEA) = 0.06; standardized root mean square residual (SRMR) = 0.06; non-normed fit index (NNFI) = 0.96; and comparative fit index (CFI) = 0.97. These results indicate a superior model fit to the alternative models shown in Table 2 and thus support the distinctiveness of the substantive measures in this study.

Also, Table 1 presented the final list of the measurement items with their corresponding factor loadings, t-values and square multiple correlations. The positive and significant standardized factor loadings ( $p < .001$ ) with their matching t-values confirm convergent validity of our key constructs. We also estimated the composite reliability (CR) and average variance extracted (AVE) and results show that all constructs exceeded the minimum threshold of 0.60 and 0.50 respectively (Bagozzi and Yi, 2012; Hair et al., 2014) providing additional support for discriminant validity.

Furthermore, a one-factor measurement model (where all indicators are loaded onto a single factor), a Harman's single-factor test, resulted in a very poor fit,  $\chi^2 (df = 99) = 384.16$ ; RMSEA = 0.10, SRMR = 0.14, NNFI = 0.86, CFI = 0.89. Considered together, these results provide evidence for construct validity of the measures used in this study and suggest that common method variance was not a major concern in this study (Podsakoff et al., 2003).

-----  
Fix **Tables 1** and **2** about here  
-----

#### Descriptive statistics and intercorrelations

Table 3 presents the means, standard deviations, reliabilities and correlations of the variables. All the substantive constructs displayed good internal consistency ( $\alpha s \geq .70$ ; Nunnally and Berstein, 1994). From Table 3, transformational leadership was positively related to employee engagement ( $r = .33, p < .001$ ) and affective commitment ( $r = .31, p < .001$ ) but negatively related to voluntary turnover intention ( $r = -.16, p < .01$ ). Further, affective organisational commitment was positively related to employee engagement ( $r = .37, p < .001$ ), psychological climate ( $r = .25, p < .001$ ) and negatively related to turnover intention ( $r = -.19, p < .001$ ). Likewise, employee engagement was also positively related to psychological climate ( $r = .12, p < .05$ ) and negatively related voluntary turnover intention ( $r = -.21, p < .001$ ). Finally, Table 3 shows that psychological climate was negatively related to voluntary turnover intention ( $r = -.34, p < .001$ ).

Furthermore, we examined our key constructs for multicollinearity following recommendations laid down by Hair et al. (2014). Multicollinearity occurs when there is a strong

correlation between two or more predictors in a regression model (Field, 2009; Tabachnick and Fidell, 2013). Hair et al. (2014) provided two approaches of identifying multicollinearity. First is an examination of the correlation matrix among the predictors. The presence of high correlations of 0.90 and above is an indication of substantial collinearity. However, the results of our study reported correlations lower than 0.38 with most correlations falling below 0.15 (Table 3), indicating no problem of collinearity. Subsequently, collinearity may occur as a result of the combined effect of two or more predictors. To assess multicollinearity, variance inflation factor (VIF) was used. Gaur and Gaur (2009) and Hair et al. (2014) suggest a threshold of VIF values of 10, and thus all the study constructs including control variables, range from (1.079 – 1.258), suggesting that multicollinearity was not a problem. Consequently, we proceeded with our hypothesis testing.

-----  
Fix **Table 3** about here  
-----

### **Hypothesis testing**

#### Hypothesis 1– 2

Hypothesis 1 predicted that transformational leadership would be positively related to employee engagement, whereas Hypothesis 2 posited that employee engagement would be positively related to affective organisational commitment. Results of hierarchical linear regression as shown in Table 4 (Model 1: Step 2) revealed that transformational leadership is positively related to employee engagement ( $\beta = 0.19$ ,  $p < 0.01$ ,  $\Delta R^2 = 0.03$ ). Similarly, Table 2 (Model 2: Step 3) shows that engagement is significantly related to affective commitment ( $\beta = 0.20$ ,  $p < 0.001$ ,  $\Delta R^2 = 0.04$ ). Therefore, Hypotheses 1 and 2 are supported.

-----  
Fix **Tables 4** about here  
-----

#### Hypothesis 3 – 5

For testing hypotheses 3 – 5, we conducted a bootstrap analysis with bias-corrected 95% confidence interval using the PROCESS macro in SPSS (Hayes, 2013). As shown in Table 3, the

correlation coefficients indicated that transformational leadership was positively and significantly related to engagement ( $r = 0.33, p < 0.001$ ), employee engagement was positively and significantly related to affective commitment ( $r = 0.31, p < 0.001$ ) and affective commitment was negatively and significantly related to voluntary turnover intention ( $r = -0.19, p < 0.001$ ). In addition, the results of the direct effects of transformational leadership on employee engagement ( $\beta = 0.36, p < 0.001$ ), employee engagement on affective commitment ( $\beta = 0.25, p < 0.001$ ) and affective commitment on turnover intention ( $\beta = -0.39, p < 0.001$ ) were all statistically significant (see Table 5). Hence, the second conditions of mediation in our hypothesized model were supported. Also, in order to examine the indirect effects of our hypothesized model, we conducted bias-corrected bootstrapping analysis at 95% confidence interval with 5,000 bootstrap samples (MacKinnon et al., 2004; Taylor et al., 2008). We followed recommendations by Preacher and Hayes (2008), and calculated the confidence interval of the lower and upper bounds to test the significance of our indirect effects. As shown in Table 5, the results of the bootstrap analysis confirmed the existence of positive and significant mediating effect for employee engagement between transformational leadership and affective commitment (standardized indirect effect = 0.09,  $p < 0.01$ ), negative and significant mediating effects for affective commitment between employee engagement and turnover intention (standardized indirect effect = -0.12,  $p < 0.01$ ), and negative and significant mediating effects for engagement and affective commitment between transformational leadership and turnover intention (standardized indirect effect = -0.15,  $p < 0.01$ ). Thus, hypotheses 3, 4 and 5 were supported.

Finally, the non-significant direct effect of transformational leadership on voluntary turnover intention as presented in Table 5 shows that employee engagement and affective commitment fully mediate the relationship between transformational leadership and voluntary turnover intention.

-----  
Fix **Tables 5** about here  
-----

Hypothesis 6

Hypothesis 6 proposed a moderation effect of psychological climate on the relationship between affective commitment and voluntary turnover intention. More specifically, psychological climate moderate the relationship between affective commitment and voluntary turnover intention such that in a positive work environment, workers' emotional attachment to the organisation will lead to a reduction in their quitting intentions. The results in Table 6 indicated that psychological climate significantly moderated the relationship between affective commitment and voluntary turnover intention ( $\beta = -1.13$ ,  $t = -2.38$ ,  $p < 0.01$ ). The amount of variance in turnover intention explained by the interaction effect was 18 percent. Hence, the hierarchical regression results provided support for hypothesis 6. A perfect way to present interaction effect is to plot it graphically. Figure 2 presents the results of the plotted interaction effect. A simple slope analysis (Aiken and West, 1991) indicates that affective commitment was negatively associated with voluntary turnover intention when psychological climate was high and vice versa.

-----  
Fix **Tables 6 and Figure 2** about here  
-----

## **Discussion**

Recent meta-analysis (Piccolo et al., 2012) and empirical findings (Avolio et al., 2009; Kim and Kim, 2015; Walumbwa and Hartnell, 2011) have suggested the need to examine the underpinning explanations by which transformational leadership translates into organisational outcomes. To this end, our study makes four important contributions to the extant literature.

First of all, we examined an integrated model that combined multiple mediators and a moderating variable in the linkage between leadership and turnover intention. Although a number of past studies have reviewed the relationship between transformational leadership and turnover intention (Burton and Peachey, 2009; Chang et al., 2013; Gyensare et al., 2016; Wells and Peachey, 2011), this is the first to examine the direct and indirect effects of supervisors' transformational leadership on voluntary turnover intention in a large public sector organisation in the context of a developing economy like Ghana. Furthermore, since public organisations

require highly engaged and committed employees to remain competitive and productive (Macey et al., 2009; Rich et al., 2010; Crawford et al., 2010), the main contribution of this research is encapsulated in our hypothesized model which has a strong theoretical underpinning and can therefore be employed to examine the effects of transformational leadership on a number of organisational outcomes within the Ghanaian public sector context. Meanwhile, results of our empirical study lend support to prior research that have found a significant effect of transformational leadership on voluntary turnover intention.

Second, our findings show that increase in engagement and affective commitment are both related to reduction in employee turnover intention. As expected, our findings reveal that enhancing the extent to which workers expend themselves “physically, cognitively and emotionally during the performance of their roles” (Kahn, 1990, p. 692) will cause them to be more committed and productive, less physically absent and likely to quit (Meyer and Allen, 1997). Our results also show that engaged employees are less likely to quit due to their emotional attachment to and involvement with the organisation which provides them with their source of livelihood (Rich et al., 2010).

Third, our findings extend Chandna and Krishnan (2009) and Chiun et al.’s (2009) studies by examining employee engagement as a mediator between transformational leadership and affective organisational commitment, and also expand the framework of Gyensare et al. (2016) by examining employee engagement and affective commitment as mediators between transformational leadership and voluntary turnover intention in the Ghanaian public sector. To the best of our knowledge, this is the first study that examines the mediating influence of both employee engagement and affective organisational commitment in the relationship between transformational leadership and voluntary turnover intention in the public sector. Our results are consistent with social exchange theory (Blau, 1964), which suggests that when leaders demonstrate genuine care and attention for workers, they are more likely to stimulate positive leader-follower relationships to improve their sense of belonging to the organisation (Zhu et al.,

2009). Consequently, employees will perceive the work atmosphere as friendly and supportive and also reciprocate that care, respect and attention with a strong sense of engagement, commitment and passion in performing their roles in the organisation. Most importantly, the results of our study contribute to the extant literature by treating employee engagement and affective commitment as substantive constructs that connect fully transformational leadership, social exchange theory and voluntary turnover intention in the public sector context.

Finally, our findings also highlight the importance of psychological climate as moderator in the relationship between transformational leadership and voluntary turnover intention. As a result, we conclude that in a positive work environment with plenty of organisational resources, employees are more likely to exhibit higher levels of affective commitment. On the other hand, in a negative work environment with less motivation and passion for work, they are more likely to quit. This is consistent with the underpinning concept of the Job Demands-Resources (JD-R) model (Karasek, 1979) which suggests that with the necessary resources in a positive and inspiring environment, affective commitment is enhanced and thus employees are less likely to quit.

#### Practical implications

Understanding specifically how supervisors' transformational leadership relates to their employees' turnover intention has practical implications, particularly in the areas of talent management and retention. For instance, to remain competitive and profitable (Crawford et al., 2010), organisations need leaders with exceptional transformational leadership competencies to help retain their most valuable assets, which are employees (Armstrong, 2009). Research by Pricewaterhouse-Cooper's Saratoga Institute indicate turnover costs organisations more than 12% of pre-tax income, all the way up to 40% for some (Leigh, 2005). This is consistent with Gyensare et al.'s (2015) assertion that the cost of replacing an employee is twice the annual salary of that employee.



Furthermore, the finding that transformational leadership is positively related with engagement, which, in turn, is related to affective commitment, and consequently voluntary turnover intention, suggests that training leaders to be more transformational may provide important and useful returns on investment (Walumbwa and Hartnell, 2011) in terms of workforce retention. Consistent with Wang et al. (2014), we suggest that public sector companies should make more efforts to train their supervisors and encourage them to improve their mutual relationships with their followers as can be seen in the core concept of social exchange theory. This will relieve public sector organisations of worrying about talent walking out of their doors (Finnegan, 2010).

Finally, given that psychological climate and affective commitment were found to make a difference in terms of lessening voluntary turnover intention, our findings may provide support for managers and supervisors who intend to minimise turnover intention by creating an appealing and encouraging work environment that will help followers to fully develop their potentials (Shalley et al., 2000).

#### Limitations and suggestions future research

Our methodology and data collection contains strengths and weaknesses. First, our cross-sectional study relied on self-report measures. Although the use of self-report measures have been criticised in survey research by some methodologists, we believe that perceptual measures are valuable in that the ratings come from the very spectacles of the employees who have routine contact with and ample opportunity to observe what goes on in the organisation. Additionally, a strength is how we followed Podsakoff et al.'s (2003) recommendations to minimise the likelihood of common method bias. Hence, the recommended steps followed add some degree of confidence in our findings.

Furthermore, although our findings have extended and expanded our knowledge of the process mechanisms through which transformational leadership affects turnover intention (Gyensare et al., 2016), they should be painstakingly treated as preliminary, until future research

replicates them with samples from a broader range of organisations. For that reason, we call for future longitudinal and experimental research to help confirm our findings.

Again, the single organisational context in which we examined our hypothesized model enabled us to control cross-industry and cross-firm variance (Bettencourt and Brown, 1997), even though it limits the generalizability of the findings. Finally, future HR research could learn from our model with a strong theoretical foundations by testing it with multiple mediators and moderators in other context rather than the public sector. These replications will enhance the extrapolation of our results.

## **Conclusion**

This study enhances our understanding of the influences of employee engagement and affective commitment in the relationship between transformational leadership and turnover intention in the public sector context. In addition, our study also shows the relevance of psychological climate as a moderator in the relationship between affective organisational commitment and voluntary turnover intention. Generally, our finding augments research on the influence of transformational leadership on voluntary turnover intention and provides practical recommendations for improving employee engagement, affective commitment and psychological climate in public sector organisations in sub-Saharan Africa and its environs.

## **References**

- Afsar, B., Badir, Y.F. and Saeed, B.B. (2014), "Transformational leadership and innovative work behaviour" *Industrial Management & Data Systems*, Vol. 114 No.8, pp. 1270-1300.
- Aiken, L.S. and West, S.G. (1991), *Multiple Regression: Testing and Interpreting Interactions*, Sage, Newbury Park, CA.
- Albdour, A.A. and Altarawneh, I.I. (2014), "Employee engagement and organisational commitment: evidence from Jordan", *International Journal of Business*, Vol. 19 No. 2, pp.193-212.
- Albrecht, S.L. and Andretta, M. (2011), "The influence of empowering leadership, empowerment and engagement on affective commitment and turnover intentions in community health service workers: a test of a model", *Leadership in Health Services*, Vol. 24 No. 3, pp. 228-237.
- Alexandrov, A., Babakus, E., and Yavas, U. (2007), "The effects of perceived management concern for frontline employees and customers on turnover intentions", *Journal of Service Research*, Vol. 9, pp. 356-371.

- Anitha, J. (2014), "Determinants of employee engagement and their impact on employee performance", *International Journal of Productivity and Performance Management*, Vol. 63 No. 3, pp. 308-323.
- Armstrong, M. (2009), *Armstrong's Handbook of Human Resource Management Practice*, 11th ed., Kogan Page, London.
- Aryee, S. and Chu, C.W.L. (2012), "Antecedents and outcomes of challenging job experiences: a social cognitive perspective", *Human Performance*, Vol. 25 No.3, pp. 215-234.
- Avery, D.R., McKay, P.F. and Wilson, D.C. (2007), "Engaging the aging workforce: the relationship between perceived age similarity, satisfaction with coworkers, and employee engagement", *Journal of Applied Psychology*, Vol. 92, pp. 1542-1556.
- Avolio, B.J., Walumbwa, F.O. and Weber, T.J. (2009), "Leadership: current theories, research, and future directions", *Annual Review of Psychology*, Vol. 60, pp. 421-449.
- Bagozzi, R.P. and Yi, Y. (2012), "Specification, evaluation and interpretation of structural equation models", *Journal of Academy of Marketing Science*, Vol. 40 No. 1, pp. 8-34.
- Bakker, A.B. and Demerouti, E. (2007), "The job demands-resources model: state of the art", *Journal of Managerial Psychology*, Vol. 22, pp. 309-328.
- Bakker, A.B., Albrecht, S.L. and Leiter, M.P. (2011), "Key questions regarding work engagement", *European Journal of Work and Organisational Psychology*, Vol. 20, pp. 4-28.
- Baltes, B.B., Zhdanova, L.S. and Parker, C.P. (2009), "Psychological climate: a comparison of organisational and individual level referents", *Human Relations*, Vol. 62 No.5, pp.669-700.
- Bass, B.M. (1999), "Two decades of research and development in transformational leadership", *European Journal of Work and Organisational Psychology*, Vol. 8 No.1, pp. 9-32.
- Bass, B.M. and Avolio, B.J. (1994), *Transformational Leadership: Improving Organisational Effectiveness*, Sage, Thousand Oaks, CA.
- Bass, B.M. and Avolio, B.J. (1995), *Multifactor Leadership Questionnaire for Research*, Mind Garden, Redwood City, CA.
- Bettencourt, L.A. and Brown, S.W. (1997), "Contract employees: relationships among workplace fairness, job satisfaction and prosocial service behaviour", *Journal of Applied Psychology*, Vol. 73, pp. 39-61.
- Biswas, S. (2010), "Relationship between psychological climate and turnover intentions and its impact on organisational effectiveness: A study in Indian organisations", *IIMB Management Review*, Vol. 22, pp. 102-110.
- Biswas, S. (2010), "Relationship between psychological climate and turnover intentions and its impact on organisational effectiveness: a study in India organisations", *IIMB Management Review*, Vol. 22, pp. 102-110.
- Biswas, S. (2011), "Psychological climate as an antecedent of job satisfaction and job involvement", *Indian Journal of Industrial Relations*, Vol. 46 No. 3, pp. 1-13.
- Blau, P. (1964), *Exchange and Power in Social Life*, Wiley, New York, NY.
- Breevaart, K., Bakker, A., Hetland, J., Demerouti, E., Olsen, O.K. and Expevik, R. (2014), "Daily transactional and transformational leadership and daily employee engagement", *Journal of Occupational and Organisational Psychology*, Vol. 87, pp. 138-157.
- Breevaart, K., Bakker, A.B., Demerouti, E. and Derks, D. (2016), "Who takes the lead? A multi-source diary study on leadership, work engagement, and job performance", *Journal of Organisational Behaviour*, Vol. 37, pp. 309-325.
- Brown, S.P. and Leigh, T.W. (1996), "A new look at psychological climate and its relationship to job involvement, effort, and performance", *Journal of Applied Psychology*, Vol. 81, pp. 359-368.

- Buckingham, M. and Coffman, C. (1999), *First, Break All the Rules: What the World's Greatest Managers Do Differently*, The Gallup Organisation, Simon and Schuster, New York, NY.
- Burch, T.C. and Guarana, C.L. (2014), "The comparative influences of transformational leadership and leader-member exchange on follower engagement", *Journal of Leadership Studies*, Vol. 8 No. 3, pp. 6-25.
- Burton, L.J. and Peachey, J.W. (2009), "Transactional or transformational leadership? Leadership preferences of Division III athletic administrators", *Journal of Intercollegiate Sport*, Vol.2 No. 2, pp. 245-259.
- Chandna, P. and Krishnan, V.R. (2009), "Organisational commitment of information technology professionals: role of transformational leadership and work-related beliefs", *Journal of Management Studies*, Vol. 4 No.1, pp. 1-13.
- Chang, W-J., Wang, Y-S. and Huang, T-C. (2013), "Work design-related antecedents of turnover intention: a multilevel approach", *Human Resource Management*, Vol. 52 No.1, pp. 1-26.
- Chiun, M.L., Ramayah, T. and Min, H.W. (2009), "Leadership styles and organisational commitment: a test on Malaysia manufacturing industry", *African Journal of Marketing Management*, Vol. 1 No.6, pp. 133-139.
- Christian, M.S., Garza, A.S. and Slaughter, J.E. (2011), "Work engagement: a quantitative review and test of its relations with task and contextual performance", *Personnel Psychology*, Vol. 64, pp. 89-136.
- Colarelli, S.M. (1984), "Methods of communication and mediating processes in realistic job preview", *Journal of Applied Psychology*, Vol. 69, pp. 633-642.
- Cole, M.S., Walter, F., Bedeian, A.G. and Boyle, E.H. (2012), "Job burnout and employee engagement: a meta-analytic examination of construct proliferation", *Journal of Management*, Vol. 38, pp. 1550-1581.
- Crawford, E. R., LePine, J. A., and Rich, B. L. (2010), "Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test", *Journal of Applied Psychology*, Vol. 95, pp. 834-848.
- Dimaculangan, E.D., and Aguiling, H.M. (2012), "The effects of transformational leadership on salesperson's turnover intention", *International Journal of Business and Social Science*, Vol. 3 No. 19, pp. 197-210.
- Dupré, K. E., and Day, A. L. (2007), "The effects of supportive management and job quality on the turnover intentions and health of military personnel", *Human Resource Management*, Vol. 46, pp. 185-201.
- Eby, L. T., and Rothrauff-Laschober, T. C. (2012), "The relationship between perceptions of organizational functioning and voluntary counselor turnover: A four-wave longitudinal study", *Journal of Substance Abuse Treatment*, Vol. 42, pp.151-158.
- Ferreira, P. and de Oliveira, E.R. (2014), "Does corporate social responsibility impact on employee engagement?", *Journal of Workplace Learning*, Vol. 26 No. 3/4, pp. 232-247.
- Field, A. (2009), *Discovering Statistics using SPSS*, 3rd ed., Sage Publications Ltd, London.
- Field, L.K. and Buitendach, J.H. (2011), "Happiness, work engagement and organisational commitment of support staff at a tertiary education institution in South Africa", *SA Journal of Industrial Psychology*, Vol. 37 No. 1, pp. 1-10.
- Finnegan, R.P. (2010), *Rethinking Retention in Good Times and Bad: Breakthrough Ideas for Keeping Your Best Workers*, Davies-Black, Boston, MA.
- Fleming, J.H. and Asplund, J. (2007), *Human sigma*, Gallup Press, New York, NY.

- Gallup (2002), "The high cost of disengaged employees", Gallup Business Journal, April 15, available at: <http://businessjournal.gallup.com/content/247/the-high-cost-of-disengaged-employees.aspx> (accessed 22 June 2016).
- Garcia-Morales, V.J., Jimenez-Barrionuevo, M.M. and Gutiérrez- Gutiérrez, L. (2012), "Transformational leadership influence on organisational performance through organisational learning and innovation", *Journal of Business Research*, Vol.65 No.7, pp.1040-1050.
- Garner, B.R. and Hunter, B.D. (2013), "Examining the temporal relationship between psychological climate, work attitude, and staff turnover", *Journal of Substance Abuse Treatment*, Vol. 44, pp.193-200.
- Gaur, A.S. and Gaur, S.S. (2009), *Statistical Methods for Practice and Research: A guide to Data Analysis using SPSS*, 2nd ed., Sage Publications Ltd, London.
- Ghadi, M.Y., Fernando, M. and Caputi, P. (2013), "Transformational leadership and work engagement: the mediating effect of meaning in work", *Leadership & Organisation Development Journal*, Vol. 32 No. 6, pp. 532-550.
- Grint, K. (1997), *Leadership: Classical, contemporary, and critical approaches*, Oxford University Press, Oxford.
- Grint, K. (2005), *Leadership: Limits and possibilities*, Palgrave Macmillan, Basingstoke.
- Guntur, R.M.Y., Haerani, S. and Hasan, M. (2012), "The influence of affective, continuance and normative commitments on the turnover intentions of nurses at Makassar's private hospitals in Indonesia", *African Journal of Business Management*, Vol. 6 No. 38, pp. 10303-10311.
- Gyensare, M.A. (2013), *Employee Turnover Intention: Empirical Evidence from Savings and Loans Companies in Ghana*, Lambert Academic Publishing, Saarbrücken.
- Gyensare, M.A., Anku-Tsede, O., Sanda, M.A. and Okpoti, C.A. (2016), "Transformational leadership and employee turnover intention", *World Journal of Entrepreneurship, Management and Sustainable Development*, Vol.12 No.3, pp.1-26.
- Gyensare, M.A., Otoo, E.A., Asare, J-A., and Twumasi, E. (2015), "Antecedents and consequence of employee turnover intention: empirical evidence from Ghana", *Management Science Letters*, Vol. 5 No. 8, pp. 781-796.
- Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2014), *Multivariate Data Analysis: A Global Perspective*, 7th ed., Pearson, London.
- Hakanen, J., Schaufeli, W. B., and Ahola, K. (2008). The job demands-resources model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work and Stress*, Vol. 22, pp. 224-241.
- Hansen, A., Byrne, Z. and Kiersch, C. (2014), "How interpersonal leadership relates to employee engagement", *Journal of Managerial Psychology*, Vol. 29 No. 8, pp. 953-972.
- Harter, J. K., Schmidt, F. L., and Hayes, T. L. (2002), "Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis", *Journal of Applied Psychology*, Vol. 87, pp. 268-279.
- Hayes, A.F. (2013), *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*, Guildford Press, New York, NY.
- Howell, J.M. and Avolio, B.J. (1993), "Transformational leadership, transactional leadership, locus of control, and support for innovation: key predictors of consolidated-business-unit performance", *Journal of Applied Psychology*, Vol. 78 No. 6, pp. 891-902.
- Hu, L. and Bentler, P.M. (1998), "Fit indexes in covariance structure modelling: sensitivity to underparameterized model misspecification", *Psychological Methods*, Vol. 3 No. 4, pp. 424-453.

- Hughes, L.W., Avey, J.B. and Nixon, D.R. (2010), "Relationships between leadership and followers' quitting intentions and job search behaviours", *Journal of Leadership and Organisational Studies*, Vol. 17 No. 4, pp. 351-362.
- James, L.R., Hater, J.J., Gent, M.J. and Bruni, J.R. (1978), "Psychological climate: implications from cognitive social learning theory and interactional psychology", *Personnel Psychology*, Vol. 31 No. 4, pp. 783-813.
- Jiang, K., Hong, Y., McKay, P.F., Avery, D.R., Wilson, D.C. and Volpone, S.D. (2015), "Retaining employees through anti-sexual harassment practices: exploring the mediating role of psychological distress and employee engagement", *Human Resource Management*, Vol. 54, No. 1, pp. 1-21.
- Joreskog, K.G. and Sorbom, D. (2006), *LISREL 8.8 for Windows*, Scientific Software International, Lincolnwood, IL.
- Judge, T.A. and Piccolo, R.F. (2004), "Transformational and transactional leadership: a meta-analytic test of their relative validity", *Journal of Applied Psychology*, Vol. 89 No. 5, pp. 755-768.
- Kahn, W.A. (1990), "Psychological conditions of personal engagement and disengagement at work", *Academy of Management Journal*, Vol. 33, pp. 692-724.
- Karasek, R.A. (1979), "Job demands, job decision latitude, and mental strain: implications for job redesign", *Administrative Science Quarterly*, Vol. 24, pp. 285-308.
- Kim, H. (2014), "Transformational leadership, organizational clan culture, organizational affective commitment, and organizational citizenship behaviour: a case of South Korea's public sector", *Public Organization Review*, Vol. 14 No. 3, pp. 397-417.
- Kim, H. and Kim, J. (2015), "A cross-level study of transformational leadership and organizational affective commitment in the Korean Local Governments: Mediating role of procedural justice and moderating role of culture types based on competing values framework", *Leadership*, Vol. 11 No.2, pp. 158-185.
- Lau, W.K. (2011, March), "The effect of employee engagement on continuance and normative commitment to the organisation", Paper presented at Southwest Decision Sciences Institute 42<sup>nd</sup> Annual Conference, Houston, TX.
- Leigh, B. (2005), *The 7 Hidden Reasons why Employees Leave*, AMACOM, New York
- Macey, W.H., Schneider, B., Barbera, K. and Young, S.A. (2009), *Employee Engagement: Tools for Analysis, Practice, and Competitive Advantage*, Wiley, Malden, MA.
- MacKinnon, D.P., Lockwood, C.M. and Williams, J. (2004), "Confidence limits for the indirect effect: distribution of the product and resampling methods", *Multivariate Behavioural Research*, Vol. 39 No. 1, pp. 99-128.
- Mathieu, J.E. and Zajac, D.M. (1990), "A review and meta-analysis of the antecedents, correlates and consequences of organisational commitment", *Psychological Bulletin*, Vol. 108, pp. 171-194.
- Mercurio, Z. A. (2015), "Affective commitment as a core essence of organizational commitment: An integrative literature review", *Human Resource Development Review*, Vol. 14 No. 4, pp. 389-414.
- Meyer, J. P. and Allen, N. J. (1991), "A three component conceptualization of organizational commitment", *Human Resource Management Review*, Vol. 1 No. 1 pp. 61-98.
- Meyer, J.P. and Allen, N.J. (1997), *Commitment in the Workplace: Theory, Research, and Application*, Sage, Thousand Oaks, CA.
- Meyer, J.P., Becker, T.E. and Vandenberghe, C. (2004), "Employee commitment and motivation: a conceptual analysis and integrative model", *Journal of Applied Psychology*, Vol. 89, pp. 991-1007.

- Meyer, J.P., Stanley, D.J., Herscovitch, L. and Topolnytsky, L. (2002), "Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences", *Journal of Vocational Behaviour*, Vol. 61 No. 2, pp. 20-52.
- Munroe, M. (2014), *The power of character in leadership: How values, morals, ethics, and principles affect leaders*, Whitaker House, New Kensington, PA.
- Nemanich, L.A. and Keller, R.T. (2007), "Transformational leadership in an acquisition: A field study of employees", *The Leadership Quarterly*, Vol. 18, pp. 49-68.
- Nunnally, J.C. and Bernstein, I.H. (1994), *Psychometric Theory*, 3rd ed., McGraw-Hill, New York, NY.
- O'Neill, B.S. and Arendt, L.A. (2008), "Psychological climate and work attitudes: the importance of telling the right story", *Journal of Leadership & Organisational Studies*, Vol. 14, pp. 353-370.
- Parker, C.F., Baltes, B.B., Young, S., Huff, J., Altmann, R., Lacost, H. and Roberts, J.E. (2003), "Relationships between climate perceptions and work outcomes: a meta-analytic review", *Journal of Organisational Behaviour*, Vol. 24, pp. 389-416.
- Pfeffer, J. (1994), *Competitive Advantage through People: Unleashing the Power of the Workforce*, Harvard Business School Press, Boston, MA.
- Piccolo, R.F., Bono, J.E., Henitz, K., Rowold, J., Duehr, E. and Judge, T.A. (2012), "The relative impact of complementary leader behaviours: which matter most?", *Leadership Quarterly*, Vol. 23 No. 3, pp. 567-581.
- Podsakoff, P.M., MacKenzie, S.B. and Podsakoff, N.P. (2013), "Common method bias in behavioural research: a critical review of research and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No.5, pp.879-903.
- Podsakoff, P.M., MacKenzie, S.B., Moorman, R.H. and Fetter, R. (1990), "Transformational leader behaviours and their effects on followers' trust in leader, satisfaction, and organisational citizenship behaviours", *Leadership Quarterly*, Vol.1 No.2, pp. 107-142.
- Preacher, K.J. and Hayes, A.F. (2008), "Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models", *Behavioural Research Methods*, Vol. 40 No. 3, pp. 879-891.
- Rana, S., Ardichvili, A. and Tkachenko, O. (2014), "A theoretical model of the antecedents and outcomes of employee engagement: Dubin's method", *Journal of Workplace Learning*, Vol. 26 No. 3/4, pp. 249-266.
- Rich, B.L., LePine, J.A. and Crawford, E.R. (2010), "Job engagement: antecedents and effects of job performance", *Academy of Management Journal*, Vol. 53, pp. 617-635.
- Saks, A. M. (2006), "Antecedents and consequences of employee engagement", *Journal of Managerial Psychology*, Vol. 21, pp. 600-619.
- Saks, A.M. and Gruman, J.A. (2012), "What do we really know about employee engagement?" *Human Resource Development Quarterly*, Vol. 25 No. 2, pp. 155-182.
- Schneider, B., Macey, W.H. and Barbera, K.M. (2009), "Driving customer satisfaction and financial success through employee engagement", *People and Strategy*, Vol. 32 No. 2, pp. 23-27.
- Scrima, F., Lorito, L., Parry, E. and Falgares, G. (2014), "The mediating role of work engagement on the relationship between job involvement and affective commitment", *The International Journal of Human Resource Management*, Vol. 25 No. 15, pp. 2159-2173.
- Shalley, C.E, Gilson, L.L. and Blum, T.C. (2000), "Matching creativity requirements and the work environment: effects on satisfaction and intentions to leave", *Academy of Management Journal*, Vol. 43 No. 2, pp. 215-223.

- Shin, S.J., & Zhou, J. (2003), "Transformational leadership, conservation, and creativity: Evidence from China", *Academy of Management Journal*, Vol. 46, pp. 703-714.
- Shuck, B. and Wollard, K. (2010), "Employee engagement and HRD: A seminal review of the foundations", *Human Resource Development Review*, Vol. 9, pp. 89-110.
- Soane, E., Truss, C., Alfes, K., Shantz, A., Rees, C. and Gatenby, M. (2012), "Development and application of a new measure of employee engagement: The ISA engagement scale", *Human Resource Development International*, Vol. 15 No. 5, pp. 529-547.
- Solinger, O.N., van Olffen, W. and Roe, R.A. (2008), "Beyond the three-component model of organisational commitment", *Journal of Applied Psychology*, Vol. 93 No. 1, pp. 70-83.
- Song, J.H., Kolb, J.A., Lee, U.H. and Kim, H.K. (2012), "Role of transformational leadership in effective organisational knowledge creation practices: mediating effects of employees' work engagement", *Human Resource Development Quarterly*, Vol. No. 1, pp. 65-101.
- Tabachnick, B.G. and Fidell, L.S. (2007), *Using Multivariate Statistics*, 5th ed., Pearson Education, Boston.
- Taylor, A.B., MacKinnon, D.P. and Tein, J.Y. (2008), "Test of the three-path mediated effect", *Organisational Research Methods*, Vol. 11 No. 2, pp. 241-269.
- Tejeda, M.J., Scadura, T.A. and Pillai, R. (2001), "The MLQ revisited: psychometric properties and recommendations", *Leadership Quarterly*, Vol. 12 No.1, pp. 31-52.
- van Gelderen, B.R. and Bik, L.W. (2016), "Affective organisational commitment, work engagement and service performance among police officers", *Policing: An International Journal of Police Strategies & Management*, Vol. 39 No. 1, pp. 206-221.
- Vincent-Hoper, S., Muser, C. and Janneck, M. (2012), "Transformational leadership, work engagement, and occupational success", *Career Development International*, Vol. 17 No. 7, pp. 663-682.
- Wallace, L. and Trinkka, J. (2009), "Leadership and employee engagement", *Public Management*, Vol. 91 No. 5, pp. 10-13.
- Walumbwa, F. O. and Hartnell, C.A. (2011), "Understanding transformational leadership – employee performance links: the role of relational identification and self-efficacy" *Journal of Occupational and Organisational Psychology*, Vol. 84, pp.153-172.
- Walumbwa, F.O., Avolio, B.J. and Zhu, W. (2008), "How transformational leadership weaves its influence on individual job performance", *Personnel Psychology*, Vol. 61, pp. 793-825.
- Walumbwa, F.O., Wang, P., Lawler, J.J. and Shi, K. (2004), "The role of collective efficacy in the relations between transformational leadership and work outcomes", *Journal of Organisational and Occupational Psychology*, Vol. 77, pp.515-530.
- Walumbwa, F.O., Wang, P., Wang, H., Schaubroeck, J. and Avolio, B.J. (2010), "Psychological processes linking authentic leadership to follower behaviours", *Leadership Quarterly*, Vol. 21, pp. 901-914.
- Wang, C-J., Tsai, H-T. and Tsai, M-T. (2014), "Linking transformational leadership and employee creativity in the hospitality industry: the influences of creative role identity, creative self-efficacy, and job complexity", *Tourism Management*, Vol.40, pp.79-89.
- Wells, J. E. and Peachey, J. W. (2011), "Turnover intentions: Do leadership behaviours and satisfaction with the leader matter?" *Team Performance Management*, Vol.17 No.1, pp.23-40.
- Yalabik, Z.Y., van Rossenberg, Y., Kinnie, N. and Swart, J. (2015), "Engaged and committed? The relations between work engagement and commitment in professional service firms" *The International Journal of Human Resource Management*, Vol. 26 No. 12, pp.1602-1621.



Zhu, W., Avolio, B.J. and Walumbwa, F.O. (2009), "Moderating role of follower characteristics with transformational leadership and follower work engagement", *Group and Organisation Management*, Vol. 34, pp. 590-619.