

# **Job Stress and Attitudes Toward Change: The Mediating Effect of Psychological Attachment**

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## **DECLARATION**

We declare that the work is original and has not been submitted for review or publication elsewhere

## **Abstract**

The present study explored the indirect effect of job stress on attitudes toward change through individuals' psychological attachment (organisational commitment mindsets and job embeddedness). The sample comprised N = 350 employees (black African: 67%; males: 69%; 26-40 years: 67%) who were affected by organisational change in the South African fast-moving consumer goods sector. The participants completed self-report measures on their job stress and psychological attachment (organisational commitment and job embeddedness) experiences and their attitudes towards organisational change. The analysis applied structural equation modeling to test for the mediation effect of psychological attachment on the link between job stress and attitudes toward change. The findings suggest job stress to have a direct negative effect on job embeddedness and a positive, direct effect on attitudes toward change. Low levels of job embeddedness had a direct effect on positive attitudes toward change and mediated the link between job stress and attitudes toward change. The study contributed to organisational change theory by suggesting that experiences of job stress lower employees' job embeddedness and this lowered sense of attachment translates into change-supportive attitudes.

*Keywords:* job stress, attitudes toward change, psychological attachment, organisational commitment, job embeddedness

Organisational change management is critical to global competitiveness in the face of evolving customer expectations (Cullen, Edwards, Casper & Gue, 2014; Worley & Mohrman, 2014). Employees' attitudes in the successful management of fundamental organisational change have therefore become a major concern for organisations in today's workplace (Ericsson, 2011; Siriram, 2011). Continuous change in the work environment often generates uncertainty and fear about the future direction of an organisation and the individual's future and position within the organisation, all of which are known to have potential negative effects on employees' work experiences, attitudes and performance (Cullen et al., 2014; Lysova, Richardson, Khapova, & Jansen, 2015; Vakola & Nikolaou, 2005; Yoon & Kim, 2010). Responses to organisational changes therefore may range from positive attitudes (i.e. this change is essential for the organisation to succeed) to negative attitudes (i.e. this change could ruin the company) (Piderit, 2000). Employees generally consider whether the planned changes will be of any benefit to them and whether they are willing to support the change initiatives (Chreim, 2006; Lysova et al., 2015; Oreg, 2006). For example, they may consider their own skills and competencies and make a judgement in terms of the likelihood of their success in new roles (Chreim, 2006), or they may become overly concerned about job security and potential threats to their power, status and prestige (Oreg, 2006). However, the indirect effect of job stress on attitudes toward change through individuals' psychological attachment is less well studied (Chetty, 2015; Ghitulescu, 2013; Rafferty & Griffin, 2006). This study investigated employees' attitudes toward organisational change and how these are influenced by their experiences of job stress and psychological attachment to the organisation.

In the present study we examined employee attitudes towards change in the South African fast-moving consumer goods (FMCG) sector. This sector experiences a range of pressures such as concerns about the global economy including worries over currency volatility and price inflation and increased competitiveness pressures from the entry of Walmart into the retail market (PricewaterhouseCoopers, 2012). Local retailers in the FMCG sector are pressured to invest heavily in organisational change initiatives to improve operational efficiency. These include changes in supply chains such as centralised distribution and customer-centred systems and investment in more advanced information technology systems, all of which introduce change in organisational structure, scope of work, job roles and daily operations of employees' work (PricewaterhouseCoopers, 2012).

We posited that employees' experiences of job-related stress influence their psychological attachment, which then affects their attitudes toward organisational change initiatives. Specifically, we regarded job stress as an antecedent that explains psychological attachment and attitudes toward change. Understanding whether job stress either negatively or positively influences individuals' attitudes toward change and how their psychological attachment affects this relationship potentially advances our theoretical understanding of employees' reactions to workplace change initiatives and improves our ability to offer recommendations to practitioners seeking to promote change-supportive employee behaviour.

### **Job stress and attitudes toward change**

Job-related stress relates to the conditions arising from the interaction between people and their jobs, which are characterised by changes within people that force them to deviate from their normal functioning (Rollinson, 2005). Organisational change in this context can be a significant

source of work stress for the employee, because, for example, as jobs and roles change, job expectations, relationships and opportunities for career growth change (Griffin, Hogan, Lambert, Tucker-Gail, & Baker, 2010; McHugh, 1997; Vakola & Nikolaou, 2005). Work stressors are generally related to negative attitudes towards change (Vakola & Nikolaou, 2005). On the other hand, organisational change initiatives that are aimed at addressing and alleviating the sources of job-related stress (e.g. role ambiguity, poor work relationships, inadequate tools and equipment, lack of career advancement opportunities, job insecurity, lack of job autonomy, work-home interface conflict, workload, compensation and benefits, lack of leader/manager support: Chetty, 2015; Coetzee & de Villiers, 2010; De Bruyn & Taylor, 2006) may potentially result in more positive orientations toward change (Rothmann, 2014; Vakola & Nikolaou, 2005). Employees generally perceive job-related stressors (e.g. work overload, role ambiguity) to be within the control of the organisation (Cullen et al., 2014; Rhoades & Eisenberger, 2002) and their existence may create a desire for change. The desire for change or alleviation of the workplace stressors may result in positive attitudes toward change and if not addressed, lower levels of psychological attachment (Chetty, 2015).

### **Psychological attachment as mediator**

Individuals' psychological attachment to the organisation is explained by their commitment mindsets (Allen & Meyer, 1990; Meyer, Morin, & Vandenberghe, 2015) and their job embeddedness (Mitchell, Holtom, Lee, Sablinski, & Erez, 2001; Mitchell & Lee, 2001). The organisational commitment mindset is explained by several aspects: affective (emotional attachment to the organisation), continuance (the perceived cost of leaving) and normative commitment (the obligation to stay with the organisation) (Allen & Meyer, 1990). Employees' job embeddedness is explained as perceptions of the combination of forces that keep them from

leaving their jobs (e.g. their perceived links to people on-the-job, the perceived fit or match with their jobs, and the things they have to sacrifice if they were to leave their jobs: Mitchell et al., 2001; Mitchell & Lee, 2001; Yao, Lee, Mitchell, Burton, & Sablynski, 2004). An increase in the number of links (formal or informal connections between an employee and other entities on the job) increases the likelihood that an employee will stay in the organisation (Holtom, Mitchell, & Lee, 2006). A higher fit (perceived compatibility of comfort with the organisation and the job) results in higher embeddedness (Holtom *et al.*, 2006). The higher the perceived cost of material or psychological benefits that may be lost or sacrificed by leaving the job, the greater the embeddedness will be (Halbesleben & Wheeler, 2008; Holtom *et al.*, 2006).

### **Organisational commitment and job embeddedness**

Positive associations between individuals' organisational commitment and job embeddedness have been established (Ferreira & Coetzee, 2013). Both organisational commitment and job embeddedness are important predictors of behavioural intentions (Allen & Meyer, 1990; Meyer & Allen, 1997; Mitchell et al., 2001; Ng & Feldman, 2013). Employees with high organisational commitment are more willing to put in extra effort for organisational change and are more likely to develop positive attitudes towards change (Bordia, Restubog, Jimmieson, & Irmer, 2011; Lau & Woodman, 1995; Vakola & Nikolaou, 2005 ). Loyal, committed and embedded employees have lower intention to leave and tend to serve as positive representatives of the change effort and go above and beyond the norm to assist the organisation in functioning effectively (Ali, Rehman, Ali, Yousaf, & Zia, 2010; Bennett & Durkin, 1999; Feldman & Ng, 2007; Mitchell et al., 2001). Research suggests that high levels of job embeddedness serve as a buffer to or moderator/mediator between stress arising from organisational dissatisfaction in the workplace

and employees' attitudes and behavioural intentions (Holtom & Inderrieden, 2006; Holtom et al., 2006; Lee, Burch, & Mitchell, 2014; Yao et al., 2004). However, people who might feel stuck in an unpleasant job could lose motivation, feel less embedded in the job, become frustrated and/or engage in counterproductive workplace behaviour (Crossley, Bennet, Jex, & Burnfield, 2007).

Similarly, Joo and Shim (2010) suggest that high levels of organisational commitment function as a mediator in the relationship between work stress and attitudes towards change by enabling the employee to deal positively with the outcomes of organisational change. Although organisational commitment has been found to be a relatively stable mindset which does not seem to be easily negatively influenced by organisational change over time (Meyer, Hecht, Gill, & Toplonysky, 2010), some change efforts may corrode employees' commitment which could result in negative attitudes towards change (Niehoff, Moorman, Blakely, & Fuller, 2001). From the perspective of the conservation of resources theory (COR: Hobfoll, 2002), psychological attachment (organisational commitment and job embeddedness) achieves its mediating effect on the job stress-change attitude link in that employees tend to experience work stress when their resources are threatened. In contrast, when resources are obtained, this is viewed as a motivational dimension for the employee (Hobfoll, 2002). One of the premises of COR theory is that employees will make every attempt to protect their resources against loss. Resources refer to things that are important to the employee (e.g. role clarity, relationships, job security and job autonomy, and leader/manager support) or that are required to gain significant things (compensation and benefits) (Chetty, 2015). Job stress is minimised when employees perceive to expend fewer resources and are consequently able to obtain more resources; thus increasing their psychological attachment (Chetty, 2015). Conversely, employees with fewer resources (e.g.

those experiencing high job stress relating to for example, role ambiguity, poor work relationships, inadequate tools and equipment, lack of career advancement opportunities, job insecurity, lack of job autonomy) are more exposed to loss of resources and are less able to obtain more resources, and by implication may exhibit lower levels of psychological attachment (Chetty, 2015).

Psychological attachment may further act as the mediator or personal resource for the employee in his or her ability to cope with on-going change and high levels of work stress. Whereas work-related stress can be regarded as a threat to the physical and psychological wellbeing of employees (Seyle, 1956), personal resources (i.e. positive or negative commitment mindsets and high or low levels of job embeddedness) may protect employees' psychological wellbeing from the effects of work stress and help them achieve their personal goals.

We proposed that individuals experiencing high levels of job-related stress may have more negative organisational commitment mindsets and lower levels of job embeddedness, and in turn, be more likely positively oriented toward organisational change initiatives. Specifically we hypothesized that psychological attachment (organisational commitment and job embeddedness) will partially account for the link between job-related stress and positive attitudes toward change. Our specific research question was:

Will job stress have a positive indirect relationship with attitudes toward change through psychological attachment (organisational commitment and job embeddedness)?

The imminent continuity of change in the contemporary workplace necessitates the capacity of both organisations and individuals to take a positive stance toward change. Organisations benefit from individuals' openness and support toward change within the organisation. Change

interventions in the organisation often fail because of the limited attention given to the human element (Bhagat, Segovis, & Nelson, 2012).

## **Method**

### ***Participants and setting***

The participants were 400 employees within the South African fast moving consumer goods (FMCG) sector who were purposively targeted because they were affected by organisational change at the time of the study. These changes involved introducing a more customer-centred approach with restructuring of staff headcount, scope of work and job responsibilities in Sales, Operations and Human Resources. Only 350 questionnaires were identified as useable, yielding a final sample of  $n = 350$  (response rate = 88%). The participants were full-time employees and were represented by mostly black African people (67%) and females (31%) in the establishment stage of their careers (26 – 40 years: 67.4%)

### ***Procedure***

Ethical clearance to conduct the research was obtained from the research institution while permission for the research was obtained from the management of the FMCG sector. The participants were invited to voluntarily participate in the study. Their anonymity and the confidentiality of their responses were honored by the researchers.

### ***Measuring instruments***

Participating employees completed self-report surveys on job stress, organisational commitment and job embeddedness (psychological attachment measures) and attitudes toward change. These instruments are described next.

### *Job stress*

Job stress (independent/predictor variable) was measured using the sources of job stress scale (JSS: Coetzee & De Villiers, 2010). The scale utilizes a five-point response format (1 = *none at all*; 5 = *very much*) to measure job stress in terms of individuals' experiences of six sources of job stress (e.g. "*how much do the following aspects contribute to stress at work for you: job/role ambiguity; relationships; job tools and equipment; career advancement prospects; job security; and lack of job autonomy*"). Coetzee and De Villiers (2010) reported an internal consistency reliability of  $\alpha = .79$  for the scale. In terms of the present study, the reliability was .89.

### *Psychological attachment*

Psychological attachment (mediating variable) was assessed using two measures, namely the organisational commitment scale (OCS: Meyer & Allen, 1997) and the job embeddedness questionnaire (JEQ: Mitchell et al 2001).

*Organisational commitment.* The OCS is a 23-item measure of employee's affective (e.g. "*I feel emotionally attached to the organisation*": 8 items), continuance (e.g. "*I believe that I have too few options to consider leaving this organisation*": 9 items), and normative (e.g. "*I would feel guilty if I left my organisation now*": 6 items) commitment as mindsets that describe individuals' psychological connection to an organisation (Allen & Meyer, 1990). The scale utilizes a seven-point response format (1 = *strongly disagree*; 7 = *strongly agree*). Internal consistency reliabilities ranging between  $\alpha = .65$  and  $\alpha = .88$  are reported for the scale (Lumley, Coetzee, & Tladinyane, 2011). In terms of the present study, the subscales obtained the following

reliabilities: affective commitment (.86); continuance commitment (.73); and normative commitment (.88). The overall reliability of scores from the scale was .89.

*Job embeddedness.* The JEQ is a measure of employee perceptions of what keep them from leaving the job (Yao et al., 2004). These forces are measured on 21-items that assess the extent to which people have links to people on-the-job (e.g. “*I have close links with many people in this organisation*”: 4 items); the extent to which they feel they fit or are a good match with their jobs (e.g. *I feel I am a good match for this company*”: 7 items), and the ease with which they would have to give up or sacrifice things if they were to leave their jobs (e.g. “*I would sacrifice a lot if I left this job*”: 10 items). The scale utilizes a six-point response format (1 = *strongly disagree*; 6 = *strongly agree*). Internal consistency reliabilities ranging between  $\alpha = .65$  and  $\alpha = .88$  are reported for the scale (Mitchell et al., 2001). In terms of the present study, the overall reliability of scores from the JEQ was .93.

#### *Attitudes toward change*

Attitudes towards change (dependent variable) was measured by the ACQ, an 18-items measure that assesses the degree to which participants have positive feelings (e.g. “*I find most change to be pleasing*”), thoughts (e.g. “*Change usually helps improve unsatisfactory situations at work*”) and behavioural intentions (e.g. “*I intend to do whatever possible to support change*”) toward change in the organisation (Dunham, Grube, Gardner, Cummings, & Pierce, 1989). The ACQ utilizes a five-point response format (1 = *strongly agree*; 5 = *strongly disagree*). Dunham et al (1989) reported an internal consistency reliability of .89 for the scale. In the present study, the scale obtained a reliability coefficient of .94 for scores from the scale.

## **Data analysis**

Using structural equation modeling (SEM) methods with MPlus 7.2 (Muthén & Muthén, 2014), the first phase of the mediation modeling procedure involved confirmatory factor analysis (CFA) in order to test competing measurement models before testing the underlying structural mediational model. We also ran a CFA analysis to check for common method variance. Table 2 provides a summary of the fit indices that resulted from the analyses.

In this study, no item parceling was implemented. The individually observed indicators (items) were used to perform CFA for each of the latent corresponding variables in a measurement model with maximum likelihood methodology. Regression paths were added to the measurement model to constitute a structural model. The robust WLSMV (weighted least-squares with means and variance adjustment) estimator was used to test the structural models and to help improve model fit. This estimator does not assume normally distributed variables and complied better with the assumptions of the scales (ordinal level of measurement) used in the study. The input type of the estimation was the covariance matrix.

The AIC (Akaike Information Criterion) and BIC (Bayes Information Criterion) fit indices were used to compare the alternative models with the initial model, with the lowest value indicating the best fit. AIC is a comparative measure of fit and is meaningful when different models are estimated. The lowest AIC is the best-fitting model. The BIC is a measure that provides an indication of model parsimony (Kline, 2010). Other fit indices included the following absolute fit indices, namely the Chi-square statistic (the test of absolute fit of the model), the weighted root mean square residual (WRMR) and the root means square error of approximation (RMSEA). The RMSEA provides an indication of the overall amount of error in the hypothesised model-data fit relative to the number of estimated parameters in the model. The

recommended acceptable levels of the RMSEA should be .06 - .05 or less and should not exceed 0.08 for acceptable fit (Hu & Bentler, 1999). The incremental fit indices included the Tucker-Lewis Index (TLI) as a relative measure of covariation explained by the hypothesised model, and the Comparative Fit Index (CFI) which takes sample size into account and compares the hypothesised and independent models (Hair, Black, Babin, & Anderson, 2010). Critical values (TLI and CFI) for good model fit have been recommended to be above the 0.90 level (Wang & Wang, 2012).

## **Results**

### ***Descriptive statistics and correlations***

Table 1 shows the descriptive statistics and zero-order correlations among the variables. The correlations indicated positive relations between job stress and attitudes toward change ( $r = .51$ ;  $p \leq .01$ ; large practical effect) and affective ( $r = .18$ ;  $p \leq .01$ ; small practical effect) and continuance commitment ( $r = .28$ ;  $p \leq .01$ ; small practical effect). Job stress had negative associations with job embeddedness, fit and sacrifice (range =  $-.41$ ;  $-.51$ ;  $p \leq .01$ ; moderate to large practical effect) and normative commitment ( $r = -.29$ ;  $p \leq .01$ ; small practical effect). Attitudes towards change showed negative associations with normative commitment, job embeddedness, fit and sacrifice (range =  $-.27$  to  $-.47$ ;  $p \leq .01$ ; small to moderate practical effect). Continuance commitment had a positive association with attitudes toward change ( $r = .23$ ;  $p \leq .01$ ; small practical effect).

[insert Table 1 approximately here]

### ***Mediation modeling: Preliminary analysis - common method bias and measurement model***

As shown in Table 2, the single common-factor model generated poor fit which suggested that common method bias did not pose a threat to our findings as indicated by the guidelines of Podsakoff, MacKenzie, Lee, and Podsakoff (2003).

[insert Table 2 approximately here]

Table 2 shows that various competing models were tested in order to obtain the best fit measurement model (model 1). The first measurement model consisted of four first order latent variables, namely experiences of sources of work stress as a single first-order factor, organisational commitment (on which affective commitment, continuance commitment and normative commitment loaded), job embeddedness as a single factor, and attitudes toward change as a single factor.

The structural model was a further modification of the first measurement model which involved removing item 18 (work stress) and items 10 and 17 (continuance commitment) in order to improve model fit. The job embeddedness factors (links, fit and sacrifice) were loaded onto the overall construct job embeddedness as a second order single factor. In line with the measurement model, the re-specification and modification of the mediation (structural) model (AIC: 54309.97 and BIC: 55729.69) showed a good fit with a chi-square value of 3618.93 (df = 1511); CFI = .93; TLI = .93; RMSEA = .063 and WRMR = 1.58.

### ***Mediation modelling: Testing the indirect effect of job stress on attitudes toward change through psychological attachment***

Mediation modeling comprised testing the indirect effect of job stress on attitudes toward change as mediated through the psychological attachment variables (affective commitment, continuance commitment, normative commitment and job embeddedness) with the bootstrapping approach in Mplus (as described by Preacher and Hayes, 2008) with 10,000 bootstrapping samples. Bootstrapping was used to construct two-sided bias-corrected (BC) 95% percentile confidence intervals (CIs) to evaluate the significance of the indirect effects.

Table 3 shows that the direct pathway from job stress to attitudes toward change was positive and significant ( $\beta = .64$ ;  $p = .00$ ). The direct pathways from job stress to the psychological attachment variables (affective commitment, normative commitment and job embeddedness) were negative and significant. These psychological attachment variables had, in turn, significant negative direct pathways to attitudes toward change. Job stress had a direct positive effect on continuance commitment, which in turn, had a positive direct effect on attitudes toward change.

[insert Table 3 approximately here]

Job stress had a significant indirect effect on attitudes toward change as mediated through job embeddedness, but not the three organisational commitment variables. Table 4 and figure 1 show that normative commitment did not have a significant mediating effect and that although the indirect effects of affective and continuance commitment were significant, the more reliable bootstrapping 95% percentile confidence intervals (CI) range included zero (-.03; .40 CI for affective commitment and -.002; .09 CI for continuance commitment), indicating also non-significant indirect effects of these two commitment variables. Table 4 further shows that after accounting for all mediator variables, the relation of job stress to attitudes toward change was diminished and significant, suggesting a partial mediation effect of job embeddedness. The point

estimate ( $\beta = .21$ ;  $p \leq .01$ ) was significant and the 95% bootstrapping CI range ( .02 lower limit CI; .39 upper limit CI) did not include zero. The sum of the indirect effect was .41 (moderate practical effect).

[insert Table 4 approximately here]

[insert Fig. 1 approximately here]

## **Discussion**

The present study involved a group of participants who were undergoing change in the organisation and explored the indirect effect of job stress on their attitudes toward change through their psychological attachment (organisational commitment and job embeddedness). Previous research has established associations between job stress and attitudes toward change in the work domain (Griffin et al., 2010; McHugh, 1997; Vakola & Nikolau, 2005). However, this study is a starting point in identifying to what extent psychological attachment factors such as organisational commitment and job embeddedness influence this relation.

### ***Direct effect of job stress on attitudes toward change***

The results showed that experiences of job-related stress predicted more positive attitudes toward change (i.e. stimulating feelings, thoughts and behaviour in support of organisational change and seeing the change as being beneficial to the individual and the organisation). Employees' attitudes towards change (i.e. their cognitions about change, affective reactions to change and behavioural tendency toward change: Bohner & Dickel, 2011; Dunham et al., 1989) are a critical determining factor of the success or failure of organisational change efforts (Chiang, 2010; Yousef, 2000). Individuals may have positive and/or negative evaluative judgments toward

organisational change initiatives and, based on these, may either support or resist a change initiative (Elias, 2009). The findings indicated that experiences of job stress created change-supportive attitudes. Organisational support theory proposes that evaluative judgments are formed in terms of employees' impressions of the extent to which the organisation provides adequate resources to address unfavourable workplace experiences (such as for example job stress), values them as individuals, and assists them during times of change while also continuing to reward their performance (Cullen et al., 2014). The impression of strong organisational support addresses employees' socio-emotional needs and may promote positive job attitudes and job satisfaction as a consequence (Cullen et al., 2014; Rhoades & Eisenberger, 2002).

#### ***Indirect effect of job stress on attitudes toward change through psychological attachment***

The findings suggest that the positive effect of high levels of job stress on attitudes toward organisational change initiatives is partly derived from the extent to which individuals feel embedded in their jobs. Those participants with high levels of job stress experiences were more likely to be less embedded in their jobs, which in turn, was likely to further promote positive attitudes toward change. Psychological attachment in the form of job embeddedness relates to contextual factors (links with others and what one has to sacrifice should these links be broken and perceptions of job-organisation fit) that act as a net or web in which the individual becomes psychologically stuck (Lee et al, 2014). The findings suggest that high job stress experiences are likely to weaken the hold of these contextual factors, resulting in the individual feeling less attached to or stuck within the organisation, which seem to contribute to them being more supportive toward the organisational change initiatives. These findings corroborate the mediating role of job embeddedness in the stress-change relation (cf. Holtom & Interrieden, 2006; Holtom et al., 2006; Lee et al., 2014; Yao et al., 2004). Job embeddedness is seen to energise, direct and

sustain behaviour (Lee et al., 2014) which could explain its significant role in mediating the influence of job stress on attitudes toward change.

Finally, contrary to findings reported by Joo and Shim (2010), our results further showed that although experiences of job stress significantly predict organisational commitment, (which in turn, significantly predicts either positive or negative attitudes toward change), commitment is not likely to influence the relation between experiences of job stress and attitudes toward change. The findings could be attributed to the dominant continuance/affective commitment profile of the sample of participants. These two commitment mindsets are seen as relatively stable forms of psychological attachment, suggesting a sense of indebted obligation to the organisation irrespective of one's current experiences (Chetty, 2015; Meyer, Stanley, & Parfyonova, 2012) that may also remain stable over the course of a change initiative (Meyer, Hecht, Gill, & Toplonysky, 2010). Research also indicates that organisations that foster strong commitment may be positively positioned for success following large scale change efforts (Meyer et al, 2010).

### ***Implications for theory and practice***

The results of our study have important theoretical and practical implications. Employees' attitudes toward change in the successful management of fundamental organisational change have become a major concern for organisations in today's workplace. Job-related stress experiences (e.g. role ambiguity, poor relationships, poor leader/manager support, lack of career advancement opportunities, work/home conflict) have negative outcomes for individuals' perceptions of job embeddedness (i.e. perceptions of poor links to people on-the-job; poor fit/match with the job/organisation, and low perceived cost of material and psychological sacrifices should they decide to leave the job: Halbesleben & Wheeler, 2008; Holtom et al.,

2006). In support of our theory, these negative job-related experiences (job stress) and negative perceptions of job embeddedness explain the more positive attitudes toward organisational change. In line with organisational support theory, practitioners seeking to promote change-supportive employee behaviour should consider the importance of job-related stress and job embeddedness in the implementation of organisational change initiatives. Because employees generally perceive job-related stressors to be within the control of the organisation (Cullen et al., 2014; Rhoades & Eisenberger, 2002), the existence of these stressors may serve as indicators that the organisation is failing to attend to their needs, which may negatively influence their psychological attachment (Cullen et al., 2014). People strive for a close match or fit between their personal values and the culture of the organisation, if these are perceived to be lacking, they may be supportive of changes in the organisation which may help them personally to achieve a better fit with the organisational culture.

However, the openness toward change stemming from the lowered sense of job embeddedness may potentially have negative outcomes such as turnover intention (Halbesleben & Wheeler, 2008; Holtom et al., 2006) and may not necessarily signal an openness toward organisational change interventions. Change interventions alleviating the job-related stress (i.e. reducing the potential threat to personal resources) may help to increase individuals' job embedded attachment to the organisation.

### ***Limitations and future directions***

The conclusions in terms of the findings of the present study need to be considered in the light of a number of limitations. The first relates to the cross-sectional nature of the study and the nature of the sample which limited the ability to ascertain causal directions of relations among the

variables and to generalise the findings beyond similar groups in other sectors. Longitudinal studies replicating the present study across various industry sectors are needed to understand how job stress and attitudes toward change develop over time and how the relation between these two constructs are influenced by psychological factors. Future research can also consider whether interventions can help individuals who are experiencing high stress and desire change deal constructively with the sources of their job stress so as to increase their psychological attachment to the organisation.

## **Conclusion**

Psychological factors such as job stress and psychological attachment variables (organisational commitment and job embeddedness) that influence individuals' attitudes toward change in the organisation were highlighted in this study. Job stress often results from organisational change, and, as shown in the present study, may also create a positive desire for change, specifically for changes in aspects that impact on the job and wellbeing of the individual. The study contributed to organisational change theory by suggesting that experiences of job stress lowers employees' job embeddedness and this lowered sense of attachment translates into change-supportive attitudes.

Organisations that embark on organisational change programmes should take heed of the effect of sources of job stress and lowered job embeddedness as core factors that may promote positive attitudes in support of organisational change. Addressing job-related aspects that influence the wellbeing of employees may encourage employees to engage more readily in organisational change initiatives. Employees' active involvement in and support of

organisational change initiatives may help the organisation to achieve its organisational change programme goals.

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**Table 1**

Descriptive statistics, bi-variate correlations, and reliability coefficients.

	Variable	M	SD	1	2	3	4	5	6
1	Job stress	3.58	1.03	(.89)					
2	Affective commitment	4.20	.64	-.61***	(.87)				
3	Continuance commitment	4.44	.92	.26***	-.07	(.73)			
4	Normative commitment	4.13	1.08	-.44***	.80***	.06	(.88)		
5	Job embeddedness	4.17	.82	-.59***	.74***	-.07	.68***	(.93)	
6	Attitudes toward change	3.14	.58	.64***	-.63***	.22***	-.51***	-.65***	(.94)

Notes: N = 350. \*\*\* $p \leq .001$  – statistically significant. \*\* $p \leq .01$  – statistically significant. \* $p \leq .05$  – statistically significant. Reliability coefficients shown in parentheses in the diagonal.

**Table 2**

Fit statistics of competing measurement models and final structural model.

Model	Chi-square	df	CFI	TLI	RMSEA	WRMR	AIC	BIC
<i>Confirmatory factor analysis</i>								
1 Common factor model	8282.04	1710	.80	.79	.105	2.97	61190.35	62579.20
Model 1	4661.73	1682	.91	.90	.071	1.86	57803.54	59300.42
Model 2	5211.80	1695	.89	.89	.077	2.02	58223.98	58481.08
Model 3	5144.51	1695	.89	.89	.076	2.02	58130.20	58387.29
Model 4	5948.15	1707	.87	.87	.084	2.26	58997.08	60397.51
<i>Structural model</i>								
Partial mediation	3618.93	1511	.93	.93	.063	1.58	54309.97	55729.69

**Table 3**

Standardised regression coefficients of the variables.

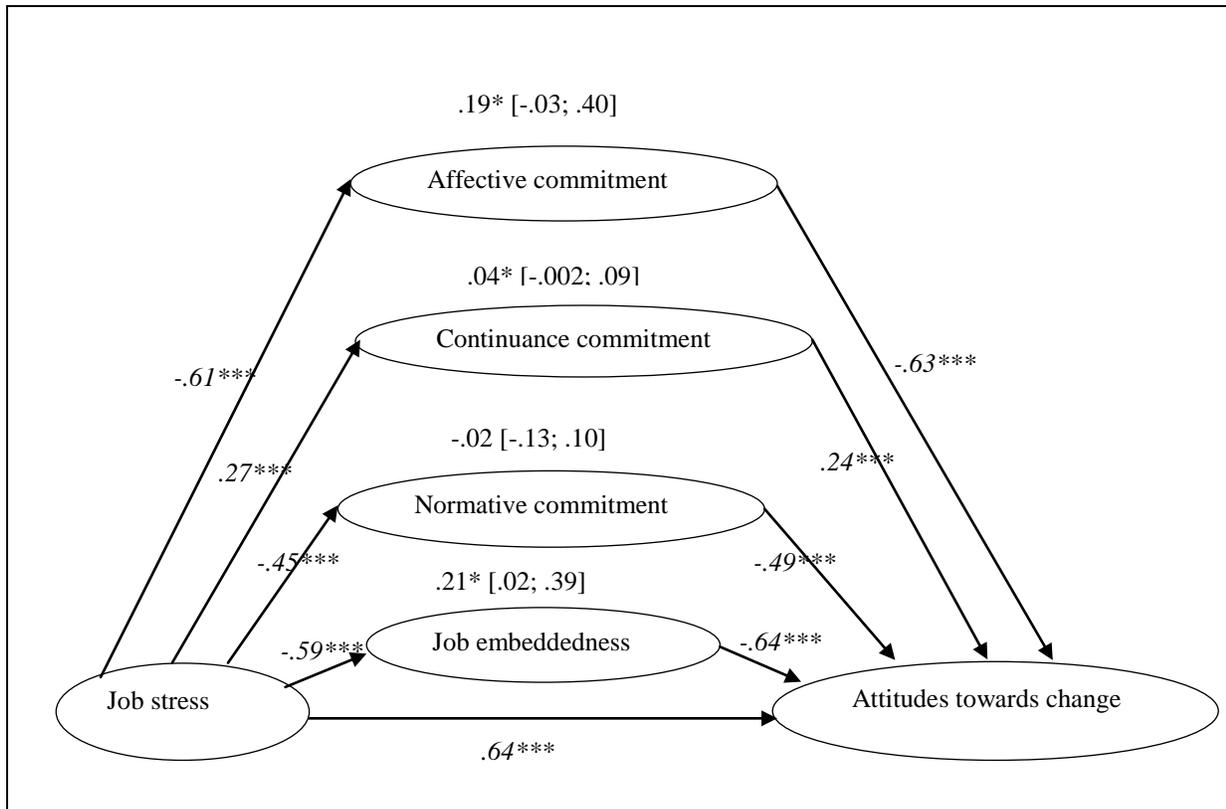
Variable	Estimate	SE	Est/SE
<i>Experiences of sources of work stress</i>			
Affective commitment	-.61***	.03	-17.67
Continuance commitment	.27***	.05	5.24
Normative commitment	-.45***	.05	-9.92
Job embeddedness	-.59***	.04	-15.43
<i>Attitudes toward change</i>			
Affective commitment	-.63***	.03	-22.58
Continuance commitment	.24***	.05	4.79
Normative commitment	-.49***	.04	-13.35
Job embeddedness	-.64***	.03	-22.01
<i>Attitudes toward change</i>			
Experiences of sources of work stress	.64***	.03	20.01

**Table 4**

Standardised indirect effects of job stress on attitudes towards change through the psychological attachment variables (affective commitment, continuance commitment, normative commitment and job embeddedness).

Mediators	Point estimate	SE	Bootstrapping BC	
			95% CI	
			Lower	Upper
Total effect	.64***	.04	.55	.74
Sum of indirect effects	.41***	.07	.24	.59
Affective commitment	.19*	.08	-.03	.40
Continuance commitment	.04*	.02	-.002	.09
Normative commitment	-.02	.04	-.13	.10
Job embeddedness	.21**	.07	.02	.39

Notes: N = 350; SE: standard error; \*\* $p < .01$ . 95% BC CI: 95% bias corrected confidence interval. \*\*\*  $p \leq .001$ ; \*\*  $p \leq .01$ ; \*  $p \leq .05$



**Fig.1.** Mediating and direct effects of the psychological attachment variables.  $*** p \leq .00$ .  $* p \leq .05$ . Bootstrapping lower and upper limits confidence intervals are shown in brackets. Values in italics are path coefficients (direct effects) identified in the mediation analysis.