

The relationships between authentic leadership, psychological capital, psychological climate, team commitment and intention to quit

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Orientation: The relationship between authentic leadership, psychological capital, psychological climate and team commitment in a manufacturing organisation could have a significant impact on employee intention to quit.

Research purpose: To determine the relationship between five positive organisational behaviour variables (authentic leadership, psychological capital, psychological climate and team commitment) and their ultimate influence on an individual's intention to quit. Thus, it is preceded by the determination of the structural invariance of the measurement instruments when applied to a South African sample.

Justification for the study: The study sought to fill the gap in the literature in relation to understanding the effect of the relationship between psychological capital, authentic leadership, psychological climate and team commitment on the behaviour of employees in a manufacturing organisation and how this influences their decision to quit. Such a study has not previously been conducted in the South African manufacturing sector.

Research design, approach and method: Utilising a non-experimental correlational approach, a self-administered composite questionnaire consisting of five psychological scales was distributed to 204 employees in the junior to senior management level at a global tyre manufacturing organisation in South Africa. Multivariate data analysis included the structural equation modelling.

Main findings: There is a significantly strong positive relationship between authentic leadership, psychological capital, psychological climate and team commitment. Authentic leadership has a significant influence on psychological capital and psychological climate. This results in a positive impact on organisational commitment, leading to employees' intention to quit.

Practical/managerial implications: Manufacturing organisations need to develop and implement collaborative leadership intervention strategies aimed at improving psychological capital and psychological climate.

Contribution/value-add: The findings inform researchers and management from manufacturing organisations to understand the correlation between organisational behaviour variables. This relationship informs the development and implementation of strategies aimed at furnishing psychological capital and psychological climate.

Introduction

The South African manufacturing sector contributes significantly towards the economic development of the country. Manufacturing had the fourth largest contribution towards the gross domestic product of about 13.0% in 2015; general government expenditure of 17.4% after finance, insurance, real estate and business services of 20.9%; wholesale and retail trade, catering and accommodation of 15% [Industrial Development Corporation (IDC), 2016, p. 5]. Furthermore, the manufacturing sector is also the fourth largest employer in the South African economy. According to the IDC (2016), the manufacturing sector is responsible for about 11.5% of the total employment numbers. Given the contribution of the manufacturing sector towards socio-economic development, it is crucial to understand the importance of the stability of the manufacturing industries in terms of employees' organisational commitment. That is why more should be done to enhance psychological capital (PsyCap) and psychological climate.

Despite the positive impact of the manufacturing industry in South Africa, some environmental factors affect the stability of the workforce. Owing to the recently experienced global economic

turmoil, a host of problems such as fear of job loss, hopelessness, general pessimism and unemployment are apparent in the South African workplace (Du Plessis & Barkhuizen, 2012; Eustace & Martins, 2014). South Africa, with its history of apartheid, has made great strides towards transformation. Against the backdrop of workplace legislation such as the *Labour Relations Act (No. 6 of 1995)*, the *Constitution of the Republic of South Africa (No. 108 of 1996)* and the *Employment Equity Act (No. 55 of 1998)*, a unique context to apply positive psychology in the workplace is provided.

In response to the dynamic business landscape, an opportunity is presented for South African organisations to explore ways of increasing productivity and promoting organisations that are relevant, competitive and sustainable on a global scale. In order to achieve international competitiveness, manufacturing firms must ensure that they implement workplace intervention strategies that should improve the psychological climate and increase PsyCap. It is expected that authentic leadership can have a significant influence on the levels of PsyCap and psychological climate, which possibly influence the behaviour and attitude of employees to choose to commit to an organisation or to quit an organisation.

This study is positioned within the rising field of positive organisational behaviour (POB) or positive organisational scholarship (POS), which has emerged from the positive psychology movement (Donaldson & Ko, 2010). Various studies have been undertaken in the field of POB in South Africa and abroad, such as those by Beal, Stavros and Cole (2013); De Waal and Piennar (2013); Simons and Buitendach (2013); Eustace and Martins (2014); Geldenhuys, Łaba and Venter (2014) and Du Plessis, Wakelin and Nel (2015). These studies focused on constructs such as PsyCap, work engagement, intention to quit, organisational commitment and others.

Until now, no research, particularly in South Africa, has attempted to measure the relationship of the variables included in the present study, namely authentic leadership, PsyCap, psychological climate, team commitment and intention to quit. Thus, this study has sought to advance the understanding of POB variables in the South African context by determining the relationships between the variables of authentic leadership, PsyCap, psychological climate, team commitment and intention to quit.

Findings from the study could possibly contribute to the extant literature on POB or POS and provide evidence for the application of positive psychology in the South African context in terms of enhancing outcomes such as performance. In addition, this study has sought to find strategies to enhance positive psychology through the impact of authentic leadership on PsyCap and psychological climate as well as its influence on organisational commitment leading to employees' intention to remain with or quit an organisation. The research questions guiding this study have been formulated as follows:

- Will authentic leadership be positively related to PsyCap?
- Will authentic leadership positively relate to psychological climate?
- Will authentic leadership positively relate to team commitment?
- Will psychological climate positively relate to PsyCap?
- Is there a positive relationship between PsyCap and team commitment?
- Will psychological climate positively relate to the level of team commitment?
- Will authentic leadership, PsyCap, psychological climate and team commitment negatively relate to employees' intention to quit the organisation?

Authentic leadership

According to the model suggested by this study, authentic leadership forms the core of POB, which is critical to increasing PsyCap and improving psychological climate. It is regarded as a pattern of leader behaviour that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalised moral perspective, balanced processing of information and relational transparency on the part of leaders working with followers and fostering self-development of both leaders and subordinates (Walumbwa, Avolio, Gardner, Wernsing & Peterson, 2008, p. 94).

Authentic leadership has been found to enhance group members' performance, PsyCap and trust levels, which in turn affect their citizenship behaviours (Clapp-Smith, Vogelgesang & Avey, 2009; Walumbwa, Luthans, Avey & Oke, 2011). PsyCap has also been shown to significantly correlate with authenticity and transformational leadership and evidence of a positive correlation between authentic leadership and PsyCap therefore exists (Caza, Bagozzi, Woolley, Levy & Caza, 2010; Toor & Ofori, 2010). Accumulated evidence indicates employees' PsyCap is related to their attitudes in the strength and direction generally considered desirable for meeting the goals for effective human resource functioning in today's challenged organisations (Avey, Reichard, Luthans & Mhatre, 2011, p. 146).

Psychological capital

Psychological capital (PsyCap) refers to an individual's positive psychological state of development characterised by having confidence (self-efficacy) to put in the necessary effort to succeed at challenging tasks; making a positive attribution (optimism) about succeeding now and in the future; persevering towards goals and when necessary redirecting paths to goals (hope) in order to succeed; and when beset by problems and adversity, sustaining and bouncing back and moving beyond previous levels (resilience) to attain success (Donaldson & Ko, 2010; Luthans & Youssef, 2007, p. 3).

Psychological climate

Koys and DeCotiis (1991) explained psychological climate as an experientially based, multidimensional and enduring

perceptual phenomenon that is widely shared by members of a given organisational unit. Its primary function is to cue and shape individual behaviour towards the modes of behaviour dictated by organisational demands. The existing literature on psychological climate highlights the relationship between psychological climate perceptions and a variety of individual level outcomes in organisational behaviour, which include job satisfaction, organisational commitment, job involvement, employee motivation, psychological well-being and employee performance (Parker et al. 2003).

Team commitment

Ellemers, De Gilder and Van den Heuvel (1998) described team commitment as the psychological attachment that the members feel towards the team. Team commitment is analogous to organisational commitment except that the target of the attachment is the team rather than the larger organisation, of which the team is a part (Pearce & Herbik, 2004). Mathieu and Zajac (1990) explicated that organisations value commitment among their employees, which is typically assumed to reduce withdrawal behaviours such as lateness and turnover. Ellemers et al. (1998) emphasised that their findings suggest the importance of assessing commitment to particular work aspects, rather than relying on measures of general organisational commitment, to predict specific behaviour at work.

Commitment in the workplace is multidimensional. The focus of commitment, which is to who or what an employee is committed, is an important dimension in assessing worker attachment (Bishop & Scott, 2000). Avey et al. (2011) argued that PsyCap may be related to commitment to the organisation because the organisation (as a referent) fulfils needs for efficacy and accomplishment for those high in PsyCap.

Intention to quit

Boshoff, Van Wyk, Hoole and Owen (2002, p. 14) defined intention to quit as the strength of an individual's view that they do not want to stay with their current employer. Several studies have attempted to predict respondents' intention to quit by measuring variables such as job satisfaction, organisational commitment, job characteristics, stressors, biographical variables and perceived support (Boshoff et al., 2002; Firth, Mellor, Moore & Loquet, 2004; Siong, Mellor, Moore & Firth, 2006; Kahumuza & Schlechter, 2008). Boshoff et al. (2002) elucidated that the intention to quit or to stay with an employer starts with the individual evaluating their current situation and then moving through several further stages until a firm intention to quit is reached. However, Firth et al. (2004) argued that though intentions are an accurate indicator of subsequent behaviour, the determinants of such intentions are still not known.

In a study investigating intention to quit in a call centre, Siong et al. (2006) suggested that understanding the aspects of the work environment that may cause stress was found to be significant. Avey et al. (2011) highlighted the significant

negative relationships between PsyCap and undesirable employee attitudes such as turnover intentions. A study undertaken to investigate the intention to quit among Generation Y academics in higher education, South Africa, found an insignificant relationship between transformational leadership and intention to quit (Robyn & Du Preez, 2013).

Relationships between organisational behaviour variables

Empirical research shows that there are statistically significant relationships between PsyCap, authentic leadership, followership and work engagement (Du Plessis, 2014). Such findings demonstrate the relevance of authentic leadership to PsyCap and the utility of exploring the effects of both constructs on trust and performance (Gardner, Cogliser, Davis & Dickens, 2011). In this regard, the study suggests the following hypotheses:

H1: Authentic leadership is positively related to psychological capital.

The research work of Woolley, Caza and Levy (2011) supported the premise that authentic leadership would increase levels of PsyCap. Furthermore, research has found that PsyCap development may be the key developmental change that authentic leaders create among their followers and that this change is largely a result of the authentic leader's effect on organisational work climate. Given this background, the paper advances the following hypothesis:

H2: Authentic leadership is positively related to psychological climate.

In comparison to the antecedents, the outcomes of authentic leadership, whether they are conceptualised as mediating or dependent variables, have received much greater empirical attention (Gardner et al., 2011). Mathieu and Zajac (1990) stated that results from the meta-analysis and individual studies imply that the influence of leader behaviours is likely to be moderated by other factors, including subordinate characteristics and aspects of the work environment. Against this background, the following hypothesis is put forward:

H3: Authentic leadership is positively related to team commitment.

Luthans, Norman, Avolio and Avey (2008) reported that PsyCap mediated the relationship between supportive climate and employee performance. As a result of a supportive climate, PsyCap may have a desired impact on employees' actual performance. This research therefore hypothesises that:

H4: Psychological climate is positively related to psychological capital.

Research has further presented evidence that task interdependence and satisfaction with co-workers both have a positive influence on team commitment (Bishop & Scott, 2000). In addition, Avey et al. (2011) pointed out that the effect of PsyCap on employee attitudes is that those higher in PsyCap believe they create their own success (efficacy and

hope). Furthermore, research findings are that a significant relationship exists between PsyCap and organisational commitment. In light of this line of thinking, the following hypothesis has been formulated:

H5: Psychological capital is positively related to team commitment.

Research has also revealed that employees with strong affective commitment remain with an organisation 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 (Allen & Meyer, 1990). This paper therefore hypothesises that

H6: Psychological climate is positively related to team commitment.

Avey et al. (2011) highlighted the significant negative relationship between PsyCap and undesirable employee attitudes, such as turnover intentions. Siong et al. (2006) suggested understanding the aspects of the work environment that may cause stress. Research has also found an insignificant relationship between transformational leadership and intention to quit (Robyn & Du Preez, 2013). Against this background, the following hypothesis is put forward:

H7: Authentic leadership, psychological climate, psychological capital and team commitment are negatively related to intention to quit.

Figure 1 summarises the hypothesised relationships where solid lines represent the hypothesised or expected positive relationships between the variables as outlined in Hypotheses 1–6. The dotted lines indicate the hypothesised or expected negative relationship between the variables as outlined in hypothesis 7.

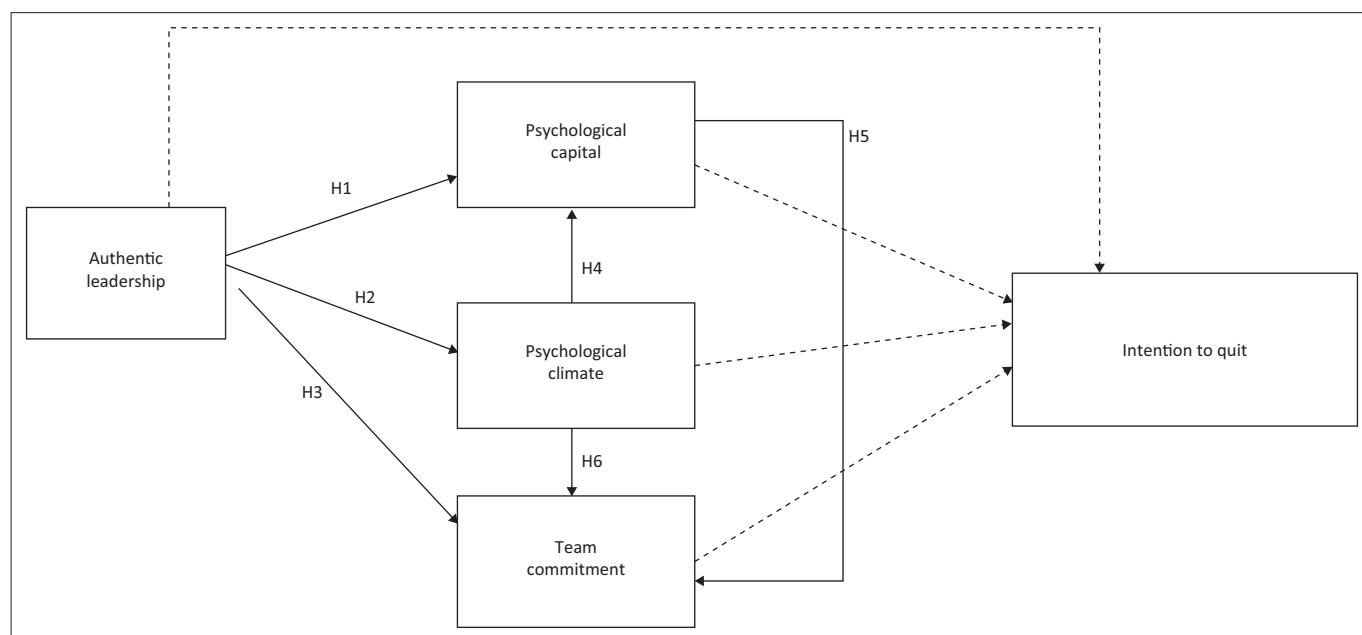


FIGURE 1: Proposed research model.

Research design

Research approach

Grounded in the positivistic paradigm, data were collected utilising the survey research approach. The study was intended as relative ex post facto research and attempted to discover the extent to which the variables relate (Babbie & Mouton, 2001). In the absence of South African studies providing evidence on the pattern of relationships investigated, the study was exploratory in nature.

Research method

Research participants

The study was carried out in a large multinational tyre manufacturing organisation. At the time of the study, the South African operation based in Port Elizabeth had approximately 1800 employees. A purposive sampling technique was used to identify the sample of 326 employees in the junior to senior management level who were presented with a self-administered composite questionnaire. The response rate amounted to 62.6%. The selection of the population was based on their ability to identify a leader they could assess on authentic leadership and consisted of all managers in the junior to senior management levels.

Measuring instruments

The unit of measurement for the study was the individual. The respondents had to rate their leader, rate their own commitment to their team and provide a self-report on measures of PsyCap, psychological climate and intention to quit. A summary of the measuring instruments is presented in Table 1.

TABLE 1: Summary of measuring instruments' characteristics.

Construct	Instrument and developers	Original items	Original Cronbach's alpha coefficient	Revalidated items	Revalidated subscales
Authentic leadership	Authentic Leadership Questionnaire (Walumbwa et al., 2008)	16 items; 4 subscales	0.93	<ul style="list-style-type: none"> • 14 items • 2 subscales • $\alpha = 0.89$ 	<ul style="list-style-type: none"> • Self-confidence • Integrity
Psychological capital	Psychological Capital Questionnaire (Luthans, Youssef & Avolio, 2007)	24 items; 4 subscales	0.87	<ul style="list-style-type: none"> • 20 items • 4 subscales • $\alpha = 0.84$ 	<ul style="list-style-type: none"> • Efficacy, hope, resilience, optimism
Psychological climate	Psychological climate (Koys & DeCotiis, 1991)	40 items; 8 subscales	0.94	<ul style="list-style-type: none"> • 38 items • 4 subscales • $\alpha = 0.93$ 	<ul style="list-style-type: none"> • Support, pressure, autonomy, cohesion
Team commitment	Team commitment (H. Bennett, personal communication, July 21, 2000)	35 items; 3 subscales	0.90	<ul style="list-style-type: none"> • 27 items • 3 subscales • $\alpha = 0.87$ 	<ul style="list-style-type: none"> • Affective, continuance, normative
Intention to quit	Intention to Quit (Cohen 1993)	3 items	0.90	N/A	N/A

N/A, not applicable.

Authentic leadership was measured using the Authentic Leadership Questionnaire (Walumbwa et al., 2008). Responses to this questionnaire were anchored on a 4-point Likert scale: 0 = not at all; 1 = once in a while; 2 = sometimes; 3 = fairly often and 4 = frequently if not always.

Some sample items from the revalidated measure were as follows: my leader admits mistakes when they are made (*self-confidence of the leader*); my leader makes difficult decisions based on high standards of ethical conduct (*integrity of the leader*). The revalidated measure ($\alpha = 0.89$) yielded 14 items and two subscales of self-confidence ($\alpha = 0.88$) and integrity ($\alpha = 0.71$). PsyCap was measured using the Psychological Capital Questionnaire (Luthans et al., 2007). The responses on the revalidated measure were anchored on a 6-point Likert scale: 1 = strongly disagree; 2 = disagree; 3 = somewhat disagree; 4 = somewhat agree; 5 = agree and 6 = strongly agree.

Some sample items for each subscale include the following: I feel confident analysing a long-term problem so as to find a solution (*efficacy*); there are lots of ways around any problem (*hope*). The revalidated measure ($\alpha = 0.84$) retained the four-factor structure but four items were lost. The Cronbach alpha coefficients for the subscales of PsyCap as used in this study were hope ($\alpha = 0.81$), efficacy ($\alpha = 0.80$), resilience ($\alpha = 0.74$) and optimism ($\alpha = 0.53$). According to the guidelines for interpreting reliability coefficients, as outlined by Tabachnick and Fidell (2001), the internal consistency for the subscale of optimism consisting of three negatively worded items was doubtful. However, Hair, Black, Babin and Anderson (2010) stated that in exploratory research, reliability coefficients of 0.60 would be acceptable.

Psychological climate was measured using the psychological climate measure by Koys and DeCotiis (1991). The revalidated measure used a 7-point response Likert scale ranging from 'strongly disagree' to 'Strongly Agree'. Sample items from the psychological climate measure were as follows: *autonomy* = I determine my own work procedure; *cohesion* = there is a lot of 'team spirit' among (research organisation) people; and *support* = my boss has a lot of personal integrity. The revalidated structure ($\alpha = 0.93$) lost two items and yielded a four-factor structure renamed support ($\alpha = 0.97$), pressure ($\alpha = 0.74$), autonomy ($\alpha = 0.77$) and cohesion ($\alpha = 0.83$).

The team commitment measure was developed by H. Bennett (personal communication, July 21, 2000). The three components of commitment were measured at an individual level where respondents reacted to 35 items on a 7-point Likert scale ranging from 'strongly disagree' to 'Strongly Agree'. The revalidated measure ($\alpha = 0.87$) retained the original structure but lost eight items. The three factors were affective ($\alpha = 0.85$), continuance ($\alpha = 0.84$) and normative commitment ($\alpha = 0.89$). The intention to quit measure was developed by Cohen (1993). Respondents reacted to a 5-point Likert response scale ranging from 'strongly disagree' to 'Strongly Agree'. A sample item was 'I think a lot about leaving the organisation'. The measure ($\alpha = 0.90$) was retained in its original form and not revalidated.

Statistical analysis

The content and structure of the measures were investigated through quantitative techniques, which included: standard multiple regression analysis using Statistica v10, EQS version 6.2 and SPSS v20. The relationships between the variables were investigated through descriptive statistics, Pearson's product-moment correlation and multiple regressions.

Results

The overall response rate for this research was 62.6% and as a result the sample sizes vary across the demographics divides. Table 2 summarises the demographic characteristics of the study.

The 204 participants in the study were on average 40.98 (SD = 10.7) years old and 73% were male participants. The respondents indicated a mean tenure of 164.6 (SD = 114.1) months. The sample drawn shows respondents were from the manufacturing (74.7%) and from sales and marketing (25.3%) divisions. The sample was predominantly white people (61.9%), while 19.8% were black people, 14.2% mixed race, 3% Indian and the remaining 1% did not specify ethnicity. For highest level of education completed, 29.4% indicated that they held a Grade 12 qualification, 28.4% held a diploma, 14.7% had earned a Grade 10 qualification, 12.7% held an undergraduate degree, 8.6% held a post-matric certificate and 6.1% held a postgraduate qualification.

TABLE 2: Demographic characteristics.

Demographic characteristics	Number	%	Mean	Range	Standard deviation
Variable					
Tenure (months) (<i>n</i> = 189)	-	-	164.593	495.00	114.114
Age (years) (<i>n</i> = 192)	-	-	40.974	44.000	10.069
Reporting unit (<i>n</i> = 162)					
Manufacturing	121	74.7	-	-	-
Sales and marketing	41	25.3	-	-	-
Home language (<i>n</i> = 190)					
Afrikaans	71	37.4	-	-	-
English	79	41.6	-	-	-
isiXhosa	32	16.8	-	-	-
Other (South Sotho, Chinese)	8	4.2	-	-	-
Highest qualification (<i>n</i> = 197)					
Grade 10 or Standard 8	29	14.7	-	-	-
Grade 12 or Matric	58	29.4	-	-	-
Post-matric	17	8.6	-	-	-
Diploma	56	28.4	-	-	-
Bachelor's degree	25	12.7	-	-	-
Honours or Masters	12	6.1	-	-	-
Gender (<i>n</i> = 203)					
Male	149	73.4	-	-	-
Female	54	26.6	-	-	-
Marital status (<i>n</i> = 200)					
Single	54	27	-	-	-
Married	122	61	-	-	-
Divorced	14	7	-	-	-
Widowed	5	2.5	-	-	-
Cohabiting	5	2.5	-	-	-
Population group (<i>n</i> = 197)					
Black	39	19.8	-	-	-
Mixed race	28	14.2	-	-	-
Indian	6	3	-	-	-
White	122	61.9	-	-	-
Other (Asian, Chinese)	2	1	-	-	-

Correlation and multiple regression procedures

To determine the relationships between the variables, the product-moment coefficient correlation well known as Pearson's correlation and standard multiple regression procedures were carried out. On the one hand, the Pearson's correlation is calculated on 'the basis of how far points lie from the best-fit regression line' (Lachenicht, 2013, p. 183). On the other hand, the standard multiple regression analysis was used in this study to model multivariate relationships. When a sample of $n = 204$ is used, very low values of r and R are significant. The obtained correlation and multiple correlation coefficients were therefore interpreted in terms of Guilford's (1956) classification and in terms of the coefficient of determination ($100R^2$).

Univariate correlations between authentic leadership, psychological capital, psychological climate, team commitment and intention to quit

In Table 3 the univariate relationships between the five psychometric variables included in the study are shown.

From Table 3 it can be seen that the intention to quit variable had only between 10.24% and 13.69% common variance with the other variables. Authentic leadership shared 21.16% and 16.81%

TABLE 3: Product-moment correlations between authentic leadership, psychological capital, psychological climate, team commitment and intention to quit ($N = 202$).

Variable	AL	PsyCap	PC	TC	ITQ
AL	1.00	0.46	0.76	0.41	-0.34
PsyCap	0.46	1.00	0.45	0.24	-0.35
PC	0.76	0.45	1.00	0.48	-0.37
TC	0.41	0.24	0.48	1.00	-0.32
ITQ	-0.34	-0.35	-0.37	-0.32	1.00

AL, authentic leadership; ITQ, intention to quit; PC, psychological climate; PsyCap, psychological capital; TC, team commitment.

variance with, respectively, PsyCap and team commitment, but had 57.76% common variance with psychological climate. PsyCap shared 20.25% common variance with psychological climate and only 5.76% variance with team commitment. Psychological climate and team commitment had 23.04% common variance. This meant that low, definite relationships to high-correlation-marked relationships between the variables were found. The findings provide some answers to the research questions. This will be dealt with in the Discussion section.

Multiple regression was used to test the correctness of the research hypotheses.

Hypothesis 1, that is, that authentic leadership is positively related to PsyCap, was investigated by treating the total score

on PsyCap as the dependent variable and the two subscale scores of authentic leadership as independent variables. The results are shown in Table 4.

The coefficient of determination ($100R^2$) highlights that 20.4% of the variation of PsyCap is explained by self-confidence and integrity (the authentic leadership subscales). According to Guilford (1956), the value of R (0.46) indicates substantial relationship between the dependent variable and the predictor variables. Both self-confidence and integrity make significant contributions to the prediction of PsyCap ($b = 0.342$ and 0.166 , $p < 0.05$). Self-confidence makes the larger contribution when compared to integrity.

Authentic leadership and psychological climate

In Table 3, a marked relationship between authentic leadership and psychological climate ($r = 0.76$) was shown. In order to test Hypothesis 2 further, multiple regression was used to further investigate this finding. The results are shown in Table 5. The coefficient of determination (R^2) indicates that 56.8% of the variation of psychological climate is explained by authentic leadership subscales. Both self-confidence and integrity make significant contributions to the prediction of psychological climate ($b = 0.630$ and 0.187 and $p < 0.05$). Although the beta value for integrity is significant, the value is low. Self-confidence makes a larger contribution than integrity.

Authentic leadership and team commitment

A moderate product-moment correlation was shown in Table 3 to exist between the total scores of authentic leadership and team commitment ($r = 0.41$). Hypothesis 3 was further tested by means of multiple regression analysis, the results of which are shown in Table 6. The coefficient of determination ($100R^2$) indicates that 15.7% of the variance in team commitment is explained by self-confidence and integrity (authentic leadership subscales). Self-confidence has the stronger

TABLE 4: Results of multiple regressions with psychological capital scale score as a dependent variable and subscales of authentic leadership as independent variables.

Independent variable	<i>B</i>	Beta	<i>t</i>	<i>p</i>
Intercept	75.922	-	24.374	0.000
Self-confidence	0.517	0.342	3.966	0.000
Integrity	0.738	0.166	2.154	0.032

Multiple regression: Dependent variable – Psychological capital, Independent variable – Authentic leadership, subscales ($n = 204$).

$F = 26.986$; $p = 0.000$; $R = 0.4601$; $R^2 = 0.2117$; Adjusted $R^2 = 0.2038$.

B, regression coefficient; Beta, standardised coefficient.

TABLE 5: Results of multiple regression with psychological climate scale as a dependent variable and authentic leadership subscales as independent variables.

Independent variable	<i>B</i>	Beta	<i>t</i>	<i>p</i>
Intercept	100.389	-	12.541	0.000
Self-confidence	2.935	0.630	9.469	0.000
Integrity	2.568	0.187	2.499	0.013

Regression: Dependent variable – Psychological climate, Independent variable – Authentic leadership total ($n = 204$).

$F = 134.569$; $p = 0.000$; $R = 0.7566$; $R^2 = 0.5725$; Adjusted $R^2 = 0.5682$.

B, regression coefficient; Beta, standardised coefficient.

relationship with team commitment ($b = 0.303$; $p < 0.05$) compared to integrity that has a low and non-significant influence on team commitment ($b = 0.146$; $p > 0.05$). The relationship can be seen as a low correlation, a definite but small relationship.

Psychological climate and psychological capital

Hypothesis 4 stated that psychological climate and PsyCap would be significantly related to each other. The product-moment correlation between PsyCap and psychological climate indicates a significant positive relationship ($r = 0.45$), indicating 20.25% common variance, being considered a moderate relationship. Multiple regressions with PsyCap as dependent variable and the subscales of psychological climate as independent variables were carried out to investigate this relationship further. The coefficient of determination ($100R^2$) indicates that 24.4% of the variation of PsyCap is explained by the psychological climate subscales of support, pressure, autonomy and cohesion. Support has the most and significant influence on PsyCap ($b = 0.449$, $p < 0.05$) compared to other dimensions with low and non-significant beta values, namely pressure (-0.155 ; $p = 0.051$), autonomy ($b = 0.085$, $p = 0.262$) and cohesion ($b = -0.067$; $p = 0.685$). The obtained relationship is interpreted as a moderate correlation; a substantial relationship. Table 7 summarises the results.

Psychological capital and team commitment

Hypothesis 5 stated that PsyCap and team commitment would be positively related. The correlation between PsyCap and team commitment indicated a small to moderate significant positive relationship ($r = 0.24$). Multiple regression, the results of which are shown in Table 8, was used to investigate this relationship further. As depicted in Table 8, the coefficient of determination indicates that 10.3% of the variance in team commitment is explained by hope, resilience, efficacy and optimism (PsyCap subscales). Hope has the most significant influence on team commitment ($b = 0.333$, $p < 0.05$) compared to other dimensions with low and non-significant

TABLE 6: Results of multiple regressions of authentic leadership scales on team commitment.

Independent variable	<i>B</i>	Beta	<i>t</i>	<i>p</i>
Intercept	102.909	-	17.372	0.000
Self-confidence	0.895	0.303	4.070	0.000
Integrity	1.270	0.146	1.521	0.130

Regression: Dependent variable – Team commitment, Independent variable – Authentic leadership total ($n = 204$).

$F = 19.881$; $p = 0.000$; $R = 0.4064$; $R^2 = 0.1652$; Adjusted $R^2 = 0.1568$.

TABLE 7: Results of multiple regression of psychological climate subscales on psychological capital.

Independent variable	<i>B</i>	Beta	<i>t</i>	<i>p</i>
Intercept	75.268	-	13.182	0.000
Support	0.173	0.449	4.756	0.000
Pressure	-0.246	-0.155	-1.963	0.051
Autonomy	0.164	0.085	1.125	0.262
Cohesion	-0.067	-0.037	-0.406	0.685

Regression: Dependent variable – Psychological capital, Independent variable – Psychological climate total ($n = 204$).

$F = 17.337$; $p = 0.000$; $R = 0.5084$; $R^2 = 0.2584$; Adjusted $R^2 = 0.2435$.

beta values, for example, resilience ($b = -0.004; p > 0.05$), efficacy ($b = 0.033; p > 0.05$) and optimism ($b = -0.116; p > 0.05$). The obtained multiple correlation is interpreted as indicating a low, definite but small relationship.

Psychological climate and team commitment

Hypothesis 6 implied an expectation that psychological climate and team commitment would be related. The correlation between the scale scores of psychological climate and team commitment ($r = 0.48$) indicates a moderate relationship. Significant positive relationships emerged between psychological climate and team commitment subscales. The coefficient of determination ($100R^2$) displayed in Table 9 shows that 22.6% of the variance in team commitment is explained by the psychological climate subscales of support, pressure, autonomy and cohesion. Support has the strongest influence on team commitment ($b = 0.408, p \leq 0.05$). Pressure, autonomy and cohesion had non-significant beta values, as indicated in Table 8. The obtained multiple correlation is interpreted as moderate; a substantial relationship.

Organisational behaviour variables and intention to quit

The correlations between authentic leadership, PsyCap, psychological climate, team commitment and intention to quit range between -0.32 and -0.37. This suggests definite but small negative relationships. Multiple regression was used to investigate these relationships as implied in Hypothesis 7 further. The results are shown in Table 10.

The coefficient of determination ($100R^2$) indicates that 18.8% of the variation of intention to quit is explained by the scores on the scales of authentic leadership, PsyCap, psychological climate and team commitment. PsyCap ($b = -0.213, p < 0.05$) and team commitment ($b = -0.182, p < 0.05$) have significant influence on intention to quit. Authentic leadership ($b = -0.075; p > 0.05$) and psychological

TABLE 8: Results of multiple regression of psychological capital subscales on team commitment scores.

Independent variable	B	Beta	t	p
Intercept	96.156	-	7.004	0.000
Hope	1.789	0.333	2.884	0.004
Resilience	-0.020	-0.004	-0.051	0.960
Efficacy	0.161	0.033	0.286	0.775
Optimism	-0.832	-0.116	-1.480	0.140

Regression: Dependent variable – Team commitment, Independent variable – Psychological capital total ($n = 204$).

$F = 6.844; p = 0.000; R = 0.3478; R^2 = 0.1209; \text{Adjusted } R^2 = 0.1033.$

TABLE 9: Results of multiple regressions of psychological climate on team commitment subscales.

Independent variable	B	Beta	t	p
Intercept	80.571	-	9.051	0.000
Support	0.308	0.408	4.446	0.000
Pressure	0.127	0.041	0.571	0.568
Autonomy	0.164	0.043	0.541	0.589
Cohesion	0.415	0.117	1.186	0.237

Regression: Dependent variable – Team commitment, Independent variable – Psychological climate total ($n = 204$).

$F = 15.835; p = 0.000; R = 0.4914; R^2 = 0.2414; \text{Adjusted } R^2 = 0.2262.$

climate ($b = -0.125, p > 0.05$) had little influence on intention to quit, given their low and insignificant beta values as presented in Table 10. The prediction is seen to be at a moderate, substantial relationship level.

In the light of the findings in Table 10 that, in a multiple regression analysis, the scale score of team commitment was in a multiple regression analysis predicted significantly by the scale scores of PsyCap and team commitment, it was decided to carry out a multiple regression analysis with team commitment as dependent variable and the subscale scores of, respectively, PsyCap and team commitment as dependent variables. The results are shown in Tables 11 and 12.

From Table 11 it can be seen that the subscales measuring hope and optimism contributed significantly to the multiple regression in which 17.83% of the variance in intention to quit is predicted in the regression model. This indicates a moderate correlation; a substantial relationship. Hope as measured in the present study is seen as the willpower to pursue goals and the ability to generate ways in which goals can be achieved. Optimism is a positive state in which positive events are attributed to personal, permanent and pervasive causes and negative events to external, temporary and situation-specific factors. The nature of these two states offers some explanation on why these two states made stronger contributions than resiliency and self-efficacy to the prediction.

From Table 12, it can be seen that continuance commitment did not contribute significantly to the prediction of the value

TABLE 10: Multiple regression with intention to quit as a dependent variable and authentic leadership, psychological capital, psychological climate and team commitment as independent variables ($n = 202$).

Independent variable	B	Beta	t	p
Intercept	21.028	-	8.137	0.000
Authentic leadership	-0.030	-0.075	-0.589	0.556
Psychological capital	-0.069	-0.213	-2.589	0.012
Psychological climate	-0.013	-0.125	-0.907	0.366
Team commitment	-0.030	-0.182	-2.359	0.019

$F = 12.764; p = 0.000, R = 0.4519; R^2 = 0.2042; \text{Adjusted } R^2 = 0.1882.$

TABLE 11: Results of multiple regression with intention to quit as a dependent variable and subscales of psychological capital as independent variables.

Independent variable	B	Beta	t	p
Intercept	16.866	-	8.515	0.000
Hope	-0.323	-0.360	-4.138	0.000
Resilience	0.067	0.077	0.989	0.324
Self-efficacy	-0.027	-0.033	-0.414	0.680
Optimism	-0.265	-0.221	-3.610	0.000

$F = 12.013; p = 0.000, R = 0.4410; R^2 = 0.1945; \text{Adjusted } R^2 = 0.1783.$

TABLE 12: Results of multiple regression model with intention to quit as a dependent variable and subscales of team commitment as independent variables.

Independent variable	B	Beta	t	p
Intercept	16.594	-	9.597	0.000
Normative commitment	-0.166	-0.339	-3.494	0.001
Continuance commitment	0.021	0.076	1.202	0.231
Affective commitment	-0.076	-0.191	-2.094	0.038

$F = 18.102; p = 0.000, R = 0.4621, R^2 = 0.2135; \text{Adjusted } R^2 = 0.2018.$

of intention to quit, while normative and affective did. Continuance team commitment is seen as a need to be part of the team as withdrawing will cause too much loss to the respondent while normative commitment represents a feeling of obligation to remain in the team as the respondent associates themselves with what the team stands for and does. Affective commitment reflects a positive emotional desire to be part of the team with the respondent liking to be part of the specific team. Intention to quit or to stay with the organisation is therefore probably less strongly influenced by continuance commitment than by affective and normative commitment. The nature of the three forms of commitment gives some indication why continuance commitment makes a smaller contribution to the prediction than the two other forms of commitment.

The common variance between the predictors and the dependent variable was 20.18%. This again indicates a moderate correlation; a moderate relationship.

Discussion

The present study was exploratory in nature. The study sought to determine the relationships between authentic leadership, PsyCap, psychological climate, team commitment and intention to quit. Most of the propositions were accepted in the light of the relationships that emerged. Overall, the proposed research model has been validated by the results, which confirmed the hypothesised positive relationships between variables as outlined in Hypotheses 1–6. This is shown in the model by solid lines. The results further confirmed the hypothesised negative relationships between the variables as outlined in H7. This is shown in the model by dotted lines.

The significant positive relationship between authentic leadership and PsyCap in this study supports other studies that have applied the two measures on other samples (Caza et al., 2010; Jensen & Luthans, 2006; Walumbwa et al., 2011; Woolley et al., 2011). In addition, significant positive relationships between PsyCap and team commitment, and PsyCap and intention to quit are supported. Avey et al. (2011) found that PsyCap has a significant positive relationship with desirable employee attitudes such as organisational commitment. According to Avey et al. (2011), significant negative relationships also emerge between undesirable employee attitudes such as turnover intentions.

Boshoff et al. (2002) stated that psychological climate does not play a role in predicting the intention to quit. Similar findings emerged in the present study. The significant positive relationship between psychological climate and team commitment in the present study also supports findings in the studies by Langkamer and Ervin (2008), Nammi and Nezhad (2009) and Şahin (2011).

This study found a marked relationship between authentic leadership and psychological climate. Though causality cannot be inferred, the significantly strong relationship could

possibly provide evidence for the central role of positivity in the workplace in creating a positive work environment. According to Walumbwa, Peterson, Avolio and Hartnell (2010), the rising interest in authentic leadership is in part because of the mounting evidence supporting the central role of positivity in enhancing human well-being and performance at work.

Avolio, Gardner, Walumbwa, Luthans and May (2004) and Luthans and Avolio (2003) suggested that organisational climate or culture may enhance or mitigate perceptions of authentic leadership behaviour. According to Koys and DeCotiis (1991), the primary function of psychological climate is to cue and shape individual behaviour towards the modes of behaviour dictated by organisational demands. Furthermore, Bishop and Scott (2000) suggested that it may be possible to influence employees' relative levels of commitment to the organisation by manipulating relevant antecedent variables.

In the present study, 33.4% of the variance of normative commitment is explained by the subscales of psychological climate (support, pressure, autonomy and cohesion). The moderately significant relationship could possibly provide some evidence to support the role of the perceptions of psychological climate on normative commitment.

The low variance on intention to quit, as explained by variables in the present study, suggests that a greater portion of the variance is still unexplained and the pattern of relationships in the present study could thus not reliably predict intention to quit. According to Firth et al. (2004), though intentions are an accurate indicator of subsequent behaviour, the determinants of such behaviour are still not known.

As supported in the present study, empirical studies on intention to quit indicate that significant relationships emerge between intention to quit and variables such as organisational commitment, but the magnitude of the effects was found to be relatively small (Mathieu & Zajac, 1990). The shortness of the scale measuring intention to quit could also have a limiting effect on the correlation coefficient that would be obtained.

Practical implications

The marked relationship between authentic leadership and psychological climate suggests a promising area for organisations to consider in terms of leadership development that can positively influence the perception of employees. Understanding the antecedents of psychological climate could possibly contribute to building a positive work environment where employees can flourish and relate positively to outcomes such as performance and commitment.

The study attempted to understand and predict behaviour of employees in the research organisation. The significant positive relationships that emerged in the study suggest the

value of utilising POB variables in South African organisations. Avey, Luthans and Jensen (2009) argued that developing PsyCap may be an effective way to at least indirectly reduce turnover. This finding is important for the present study, based on the significant positive relationships that emerged. The study is in agreement with Avey et al. (2009) that there is a need for future research to investigate the mechanisms through which PsyCap contributes to turnover intentions and actual turnover.

Limitations of the study

The study was conducted within a single organisation in South Africa and generalisations to other organisations are not possible. More studies would be required to determine the pattern of relationships that emerge in a South African context. The present study utilised a survey research design that is of limited value in establishing cause and effect. Furthermore, the study utilised a survey questionnaire and only sought to determine relationships between variables.

Podsakoff, MacKenzie, Lee and Podsakoff (2003) stated that method variance can either inflate or deflate observed relationships between constructs, leading to both Type I and Type II errors. A composite questionnaire was utilised to collect data at one point, which could have been problematic because the sequential presentation of scales possibly increased the problem of common method variance.

Adding a qualitative component to the study could possibly have yielded a better understanding of the context and emotional experiences of respondents. Further research could possibly confirm or argue against the relationships that emerged in the present study.

Conclusion

The present study attempted to advance the understanding of POB variables in South Africa through testing relationships between variables. The overall aim of the study was achieved and findings from the study support significant relationships. A measure of social desirability may possibly contribute to the accurate interpretation of the data and determine the extent to which respondents could have faked their responses.

Future research on social desirability could possibly correlate the scores on the measure with the social desirability scores and thus enable more accurate interpretations of the relationships that emerge. Lastly, comparing the reading ability and the comprehension of items in the measures across samples where the measures have been applied is a possible area for future research.

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Competing interests

The authors declare that they have no competing interests which may inappropriately influence their contribution to this article.

Authors' contributions

S.A.M. conceptualised the study, gathered the data and participated in the analysis, interpreted the results and did the majority of writing of the article. A.B.B. provided guidance on the design of the study, content of the literature, statistical procedures, interpretation of the results and the Discussion section. R.S. reviewed the article and provided input on changes required. J.P. advised on the statistical procedures to be followed in the analysis of the data and carried out some of the data analyses.

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