

## **INVESTIGATING THE RELATIONSHIP BETWEEN ETHICAL CLIMATE AND PSYCHOLOGICAL CAPITAL**

**Ms Lindiwe Sibiya**

Department of Industrial Psychology and People Management,  
University of Johannesburg

**Ms Thelma Makoni**

Department of Industrial Psychology and People Management,  
University of Johannesburg

**Prof. René van Wyk**

Department of Industrial Psychology and People Management,  
Faculty of Management,  
University of Johannesburg  
E-mail: [rvanwyk@uj.ac.za](mailto:rvanwyk@uj.ac.za)

### **Corresponding author:**

Prof. René van Wyk  
Department of Industrial Psychology and People Management,  
Faculty of Management,  
University of Johannesburg  
E-mail: [rvanwyk@uj.ac.za](mailto:rvanwyk@uj.ac.za)

### **ABSTRACT**

Ethical climate and psychological capital play an important role in the behaviour of employees. This quantitative investigation scrutinises the prediction of psychological capital (resilience, hope, self-efficacy and optimism) by the ethical climate (codes of caring, instrumental, rules, independence and laws). A total of 101 individuals from a banking branch in Gauteng South Africa took part. Principal Component with Direct Oblimin Rotation and Confirmatory Factor Analyses were used to verify the construct validity of the Psychological Capital and Ethical Climate scales. Structural Equation modelling and Confirmatory Factor Analysis with AMOS, determined the significance of prediction of psychological capital by means of the ethical climate scales. The caring and rules ethical climate factor significantly positively predicted optimism and hope. Both caring and rules as well as independence ethical climate scales significantly positively predicted self-efficacy. The instrumental ethical climate scale significantly negatively predicted adverse resilient experiences, and ethical climate. Law, code and caring significantly positively predicted positive resilient reactions and self-efficacy. The findings are an indication to management that the more employees experience ethical codes and law being enforced, the more resilient, optimistic and hopeful they are.

### **INTRODUCTION**

Ethical climate forms an important part of the larger organisational climate (Cullen, Victor and Bronson, 1993). It determines policies, procedures, and processes that lead to moral and ethical outcomes (Mulki, Jaramillo and Locander, 2008). Ethical work climate forms the basis of employees' attitudes and behaviours towards business ethics (Shafer, 2015). Qadeer and Jeffery (2014) reason that organisational climate could possibly guide and inspire employees' psychological capital. The term 'psychological capital' is drawn from the emerging positive psychological movement, which focuses on strengths of individuals rather than their weaknesses (Luthans, Luthans and Luthans, 2004). Positive ethical climate components at individual level could empower employees by advancing psychological capital (Golparvar and Azarmonabadi 2014).

The shift from social and human capital to positive psychological capital emphasises the importance of employees overcoming challenges encountered in organisations (Luthans *et al.*, 2004). Human capital plays an important role in this regard. It is an intangible asset of the value that an individual contributes to the business and assists in remaining competitive (Luthans *et al.*, 2004). Human capital emphasises the “who I am”. This form of self-acknowledgment is as important as “who I know” and “what I know” in business. Positive Psychological capital: “who I am” is defined as the positive psychological state of an individual that comprises of self-efficacy, hope, optimism and resilience (Luthans, Youssef and Avolio, 2007).

Psychological capital has different advantages in business. It leads to an increase in performance (Luthans, Avolio, *et al.* 2007; Luthans *et al.* 2005; Peterson and Byron 2008), greater levels of job satisfaction (Çetin 2011; Diržytė *et al.* 2013; Larson and Luthans 2006; Luthans, Avolio, *et al.* 2007), commitment to the organisation (Etebarian *et al.* 2012; Çetin 2011; Larson and Luthans 2006), and work well-being (Avey *et al.*, 2010; Culbertson, Fullagar and Mills, 2010), organisational support (Hui, Cao, Lou and He, 2014) as well as the climate related to leadership (McMurray, Merlo, Sarros and Islam, 2010; Naran, 2013). All these factors ultimately benefit the organisation. These advantages lead business to a competitive advantage and organisational success (Luthans, Avey, Avolio and Peterson, 2010).

### **Problem statement**

The relationship between ethical climate and psychological capital should not be underestimated, considering the important roles they both play in effective business functioning. As far as could be established, only the Golparvar and Azarmonabadi (2014) study, done on 267 employees of a railway company in Iran, has investigated the prediction of psychological capital by means of ethical climate. It is not clear to what extent ethical climate influences psychological capital in the South African context.

### **Research Questions**

1. Is the Ethical Climate Scale portable to the SA sample?
2. Is the Psychological Capital Scale portable to the SA sample?
3. Does Ethical Climate predict Psychological Capital?

### **Research aim and objectives**

This investigation is directed at the prediction of psychological capital by ethical climate, similar to the Golparvar and Azarmonabadi (2014) study. The objective of this research is to apply the knowledge in organisations by making them aware of the possible outcomes of ethical climate practices on the psychological capital of employees.

## **LITERATURE REVIEW**

There is a growing interest in the ethical responsibility and enforcement of ethical behaviour in businesses reflected on the bases of legal judgements against organisations (Victor and Cullen 1988). The psychological perceptions of ethical policies and procedures that govern a company may affect employees' behaviour and emotions in the work environment (Golparvar and Azarmonabadi 2014). Organisational ethical climate, through the development and enforcement of ethical policies may play an important role in employees' perceptions of right or wrong, moral and psychological commitment. A lack of leadership behaviour and poor working conditions may change the perceptions of employees (Ascigil and Parlakgumus 2012) to the detriment of the organisation.

Ethical climate is defined as “prevailing perceptions of typical organisational practices and procedures that have ethical content” (Victor and Cullen 1988:101) Ethical climate also focuses on the values, procedures and regulations within the organisation that include moral behaviour and attitudes (Birtch and Chiang 2014). It shapes ethical behaviour and aids members in distinguishing between appropriate and inappropriate behaviour in the organization (Hung and Tsai 2016). Ethical climate is therefore a shared perception amongst employees in an organisation, which includes company policies, procedures and practices (Guerci, Radaelli, Siletti, Cirella and Rami Shani, 2015). It further directs an organisation’s behaviour towards organisational support, rewards and ethics. An ethically sound environment may lead to positive outcomes work attitudes, values and behaviour such as work performance and job satisfaction (Aşçigil and Parlakgümüş 2012).

### Ethical climate and its dimensions and principles

Victor and Cullen (1988), provide an ethical climate grid of two dimensions, with 3 components in a grid that leads to nine different principles. This grid identifies five ethical climate types: instrumental, caring, independence, rules as well as law and code (Aşçigil and Parlakgümüş 2012: 402). The two ethical climate dimensions of criterion and locus of analysis are verified on the ethical criteria of egoism, benevolent and principle, accommodating the ethical climate types. The Victor and Cullen (1988) grid is adapted by the current authors and presented in Table 1, incorporating the different dimensions, principles and types.

**TABLE 1**  
**VICTOR AND CULLEN (1988) DIMENSIONS AND PRINCIPLES OF ETHICAL CLIMATE**  
**TYPES THAT PLAY A ROLE IN ETHICAL DECISIONS**  
**(ADAPTED BY CURRENT AUTHORS)**

Dimension 1: Ethical Criterion	Dimension 2: Locus of Analysis (individual concerns in ethical decisions)		
	Individual	Local	Cosmopolitan
<b>Egoism</b>	Self-interest (instrumental)	Company profit (instrumental)	Efficiency (caring)
<b>Benevolence</b>	Friendship (caring)	Team interest (caring)	Social responsibility (caring)
<b>Principles</b>	Personal morality (independence)	Company rule (rules)	Law and professional code (law and code)

Victor and Cullen (1988) used two dimensions to describe ethical climate types dealing with ethical decision making in an organization, namely (1) ethical criterion, and (2) locus of analysis. These two dimensions are supported by instrumental, caring, independence and law/code practices. The ethical criterion dimensions consist of egoism, benevolence and principles (Victor and Cullen 1988; Aşçigil and Parlakgümüş 2012). The locus of analysis dimension has three categories; individual, local and cosmopolitan levels of analyses (Shacklock *et al.* 2011; Aşçigil and Parlakgümüş 2012). A climate of **egoism** refers to self-serving behaviour of individuals (Aşçigil and Parlakgümüş 2012; Guerci *et al.* 2015) in gaining awards and preventing punishment (Tseng and Fan 2011). Contrary to egoism, individuals who care about the well-being of co-workers are guided by **benevolent**, altruistic behaviour (Aşçigil and Parlakgümüş 2012; Guerci *et al.* 2015; Shafer 2015). The **principle** ethical criterion refers to employees adhering to rules and regulations established by organisations (Aşçigil and Parlakgümüş 2012; Guerci *et al.* 2015).

The three ethical climate criteria dimension of egoism, benevolence and principle are interpreted in relation to the local analysis dimension of individual, local and cosmopolitan, forming the nine principles (Aşçigil and Parlakgümüş 2012; Victor and Cullen 1988) depicted in Table 1.

- The **individual** locus of analysis is an indication of the individual’s moral reasoning concerning personal benefits, values and beliefs. An individual locus of analysis could lead to actions of self-

interest, friendship seeking or moral independence. All these actions take place on the three ethical climate levels or respectively egoism, benevolence and principles.

- The **local** locus of analysis, refers to the local application in the organisation (Rothwell and Baldwin 2007; Shafer 2015), implicating company profit, team interest and application of company rules on the three respective ethical climate levels.
- The **cosmopolitan** (community or societal) locus of analysis, is the action in the interest of the public and society, external to the organisation (Guerci *et al.* 2015; Rothwell and Baldwin 2007; Shafer 2015). This takes place on the respective egoism, benevolence and principle levels of efficiency, social responsibility and law and professional code applied by an organisation.

The instrumental, caring, independence and law/code practices are described as (Aşçigil and Parlakgümüş 2012; Victor and Cullen 1988):

- **Instrumental climate** relates to decision making, based on self-interest imposed by self-guidance or organisationally directed (Aşçigil and Parlakgümüş 2012).
- **Caring** refers to prioritising the well-being of stakeholders (Atabay, Cangarli and Penbek, 2015) that bonds friendships and sees to the well-being of others (Aşçigil and Parlakgümüş 2012; Shacklock *et al.* 2011). Therefore, a caring climate encourages good behaviour and work engagement (Schwepker and Schultz 2015).
- **Independence** is the independent conscience, devoted behaviour to moral principles (Wang and Hsieh 2012), that alleviates moral distress (Atabay *et al.*, 2015).
- **Law/code** provides the regulations by which employees follow, apply and enforce ethical rules and practices (Aşçigil and Parlakgümüş 2012).

The ethical climate experienced in a business may contribute to the psychological capital security of individuals.

### Defining Psychological Capital

The investment in psychological capital may help organisations to increase their competitive advantage and preserve their human capital (Luthans, Youssef, *et al.*, 2007). Psychological capital is the positive “psychological state of development” of an individual (Luthans, Youssef, *et al.* 2007:3) characterized by hope (the desire to become successful), self-efficacy (the confidence to achieve challenging tasks) resilience (the ability to bounce back from failure or set-backs) and optimism (responding effectively to positive and negative situations). Psychological capital focuses on the establishment of strengths and virtues that will allow individuals to be content with themselves and their work (Wu, 2015). Such individuals are focused less on their personal psychological problems. The practical strengths provided by psychological capital practices may minimize stress levels and turnover rates (Avey, Luthans and Jensen, 2009), improving the psychological growth of employees (Şahin, Cubuk and Uslu, 2014). The four components of psychological capital, of hope, self-efficacy, resilience and optimism (Avey *et al.*, 2009) are explained accordingly.

**Hope** refers to the self-motivation of becoming successful in personal, spiritual and occupational aspects of life (Hsu, Wang, Chen and Dahlgard-Park, 2014). Hopeful individuals tend to show a willingness and have the means to achieve goals (O’Donohue, Martin and Torugsa, 2015). Should goal plans be blocked, individuals tend to creatively generate alternative options to gain solutions. Hope develops from the successful interactive exchange between agency and pathways to gain a positive motivational state (Avey *et al.*, 2010) that drives perseverance and redirects goals (Hsu *et al.*, 2014). Agency and pathway thinking are reciprocal in the maintenance of hope. Agency involves determination and self-driven forces in attaining goals through pathways of cognitive abilities and strategies aspiring certain outcomes (Avey *et al.*, 2010). A person with an increased level of agency thinking will be motivated to draw up strategies, applying pathways alternatives to plan ambitions. People with high levels of hope are open-minded and persevere in seeking alternative strategies to achieve success (Hsu *et al.*, 2014).

**Self-efficacy** is the confidence of the individual that success at a task will transpire by applying the necessary effort (Luthans, Youssef, *et al.*, 2007). Self-efficacy is a motivational construct that assist

individuals to remain goal oriented, continue to persevere in challenging tasks, build confidence and create coping methods to achieve desired goals. People who have high self-efficacy believe that they possess abilities to accomplish tasks, which lead to increased confidence and motivation. Self-efficacy plays an important role in decisions made in business, which may influence the goals, commitment, efforts and motivation of employees (Hsu *et al.*, 2014).

**Resilience** is a competence presented in turbulent situations and an ability to recover when confronted with uncertainty (Luthans *et al.* 2004). Resilience is also regarded as a “fortitude” (Şahin *et al.*, 2014). It is an ability to remain motivated, rapidly provide solutions to progress and increase performance, notwithstanding setbacks or challenges. Resilience is seen as the positive attribute that motivates an individual to stand firm, regardless of failure and challenges (Hsu *et al.*, 2014). People with high resilience adapt very well when an organisation is going through changes and adversities. Such people are open to new challenges, often seeing it as an opportunity. Resilient individuals strive for success and don't give up when faced with setbacks or negative feedback. Individuals with a resilient mind-set focus on positive and critical thinking strategies when enduring setbacks (Hsu *et al.*, 2014).

**Optimism** is defined as the descriptive way of providing explanations in response to good or bad experiences (Seligman, 1988). Optimistic individuals provide an internal, stable, and global attributions to positive events and external, unstable attributes of negative events (Hsu *et al.*, 2014). Optimistic individuals tend to assess positive outcomes as permanent, and negative outcomes as temporary (Luthans *et al.*, 2004). People with an optimistic view are optimistically orientated to expect outcomes to be positive, opposed to pessimistic people who tend to expect negative results (Hsu *et al.*, 2014). Being optimistic assists in remaining motivated in the face of adversities. When confronting challenges, optimistic individuals remain calm and persevere. This is opposed to pessimistic individuals, who consider quitting when situations are tough. Optimism should be faced realistically, as unrealistic optimism could also lead to stress and anxiety.

### **The relationship between Ethical climate and Psychological Capital**

Ethical climate has different organizational outcomes that could lead to psychological well-being, job satisfaction, commitment, and if unhealthy, to deviant behaviours (Wang and Hsieh 2012). As far as could be determined, only the Golparvar and Azarmonabadi (2014) study investigates the impact of ethical climate on psychological capital. This study was done in a sample of 267 employees in a railway company in Iran. The current study seeks to investigate this prediction in a South African sample.

## **METHOD**

This study is aimed to investigate the psychometric properties of the two instruments: Ethical Climate Questionnaire (Victor and Cullen 1988) and Psychological Capital Questionnaire (Luthans, Youssef, *et al.*, 2007), as well as the prediction of ethical climate with psychological capital as the outcome variable.

### **Participants**

Participation was gained from a Gauteng branch of a bank. Participants were selected from white collar workers and comprised of a diverse socioeconomic background, including different age groups, gender, level of education, language, and level of position. Socio-demographic characteristics suggest that non-response bias is unlikely to be present in the data collection (Saunders, Lewis and Thornhill, 2009). Permission was gained from the bank in the Johannesburg branch to contact employees per email to participate. The total number of participants were 101: 37 males (36.6%) and 64 were females (63.4%) in a female dominant in sector. Participants' ages range from 18 to 64. The largest number of participants have grade 12 or equivalent (50.5%), 24 diplomas or BTech (23.8%), 17 bachelor's (16.8%), six honours (5.9%), two master degrees (2%) and one participant did not indicate educational level. The largest proportion of respondents 75 (74.3%) were from non-management, followed by top-management 26 (25.7%).

## **Sampling Procedure**

A census sampling procedure was used to collect data from every possible member of the group in the population (Saunders *et al.*, 2009), in this case a large branch of a bank. This bank branch forms part of a larger population of the banking sectors in Gauteng Johannesburg, and South Africa. A total of 6.7% individuals responded, this is only 101 out of a census of 1500 individuals at one branch. This aim was to target all levels in the organisation: top management, middle management and non-management. Only middle management and non-management responded.

## **Measuring Instruments**

The questionnaire consisted of biographic, demographic information, and two questionnaires: Ethical Climate Questionnaire (Victor and Cullen 1988) and the Psychological Capital Questionnaire (Luthans, Youssef, *et al.*, 2007).

## **Ethical Climate Measure**

Organisational ethical climate was evaluated by means of the Ethical Climate Questionnaire developed by Victor and Cullen (1988). This questionnaire comprised of twenty six items measuring five subscales: caring, law and code, rules and procedures, instrumental and independence (Aşçigil and Parlakgümüş 2012). Golparvar and Azarmonabadi (2014) report Cronbach Alphas ranging from 0.76 to 0.89, caring (0.89), rules and law (0.85), service (0.79) and independency (0.76). Responses were measured on a 6-point Likert-type scale ranging from completely false (0) to completely true (5) (Victor and Cullen 1988). An example item for law and code from this questionnaire is: "In this company, the law or ethical code of their profession is the major consideration" (Victor and Cullen 1988:122).

## **Psychological Capital**

The Psychological Capital Questionnaire developed by Luthans, Youssef, *et al.* (2007) comprises of 24 items, measuring four subscales: hope, optimism, resilience and self-efficacy. Responses are measured on a 6-point Likert scale ranging from strongly disagree to strongly agree, from 1= strongly disagree, to 6 = strongly agree. Luthans *et al.* (2007) report Cronbach Alphas as: hope (.88), resilience (.89), efficacy (.89), and optimism (.89). An example of an item is: "I feel confident in representing my work area in meetings with management" (Luthans *et al.*, 2007:555).

## **Analyses**

The questionnaire was distributed in the bank branch per email. SPSS was used to validate the instruments. Data was inspected for misplaced values. The plausibility of the values was identified by evaluating the minimum and maximum values as well as mean and standard deviation values. Skewness coefficients of  $>2$  and kurtosis of  $>4$  was used to exclude outliers or unsatisfactory items and fell within the prescribed parameters (Davis, Pecar, Santana and Burke, 2014). Investigation of the internal consistency reliability of both scales was undertaken by means of Cronbach Alpha, Principal Exploratory, and Confirmatory Factor Analysis. Items with weak or cross-loadings were removed, should the absolute loading be less than 0.30 or the difference between loadings is less than 0.30. Once the structure of the instruments was investigated the prediction of psychological capital by ethical climate was investigated by a Structural Equation Model.

## RESULTS

The results are interpreted to address the research questions:

*Research Question 1: Does the Ethical climate scale measure reliably?*

In addressing research question one, Exploratory and Principal Factor Analysis was done. Four factors had Eigen values greater than one, confirmed by the Scree test, levelling off from the fourth factor. The Principal Factor Analysis with Oblimin Kaiser Rotation showed the pattern matrix loadings in Table 2.

**TABLE 2**  
**PATTERN MATRIX OF THE ETHICAL CLIMATE SCALE BY MEANS OF PRINCIPAL FACTOR ANALYSIS WITH OBLIMIN KAISER ROTATION**

Item	Law/ code/care	Instru- mental	Caring & Rules	Indepen- dence
People are expected to comply with the law and professional standards over and above other considerations	<b>0.968</b>	0.018	0.101	0.009
In this company, people are expected to strictly follow legal or professional standards	<b>0.902</b>	0.008	-0.018	-0.003
In this company, the law or ethical code of our profession is the major consideration	<b>0.899</b>	-0.078	0.022	-0.020
Everyone is expected to stick by company rules and procedures	<b>0.884</b>	0.061	0.038	-0.020
It is very important to follow the company's rules and procedures here	<b>0.870</b>	0.075	-0.065	0.107
In this company, the first consideration is whether a decision violates any law	<b>0.728</b>	-0.082	-0.128	-0.066
In this company, it is expected that you will always do what is right for the customers and public	<b>0.545</b>	0.075	-0.264	-0.014
In this company, each person is expected above all to work efficiently	<b>0.534</b>	0.049	-0.095	-0.190
People here are concerned with the company's interests-to the exclusion of all else	0.119	<b>0.780</b>	-0.152	0.107
There is no room for one's own personal morals or ethics in this company	-0.036	<b>0.708</b>	-0.024	0.127
People are expected to do anything to further the company's interests, regardless of the consequences	-0.163	<b>0.701</b>	0.042	-0.148
Work is considered substandard only when it hurts the company's interests	0.046	<b>0.641</b>	0.081	-0.198
The major responsibility of people in this company is to control costs	0.141	<b>0.519</b>	0.086	-0.084
The major consideration here is what is best for everyone in the company	-0.054	-0.020	<b>-0.923</b>	-0.064
The most important concern is the good of all the people in the company as a whole	-0.075	-0.054	<b>-0.910</b>	-0.170
In this company, people look out for each other's good	-0.035	0.006	<b>-0.785</b>	-0.052
Our major concern is always what is best for the other person	0.077	0.120	<b>-0.718</b>	-0.033

Item	Law/ code/care	Instru- mental	Caring & Rules	Indepen- dence
Successful people in this company go by the book	0.135	-0.038	<b>-0.704</b>	0.102
People in this company strictly obey the company policies	0.156	-0.029	<b>-0.675</b>	0.106
In this company, people are guided by their own personal ethics	0.094	-0.101	0.059	<b>-0.887</b>
Each person in this company decides for themselves what is right and wrong	0.013	0.089	0.012	<b>0.812</b>
In this company, people are expected to follow their own personal and moral beliefs	0.038	-0.014	-0.116	<b>-0.673</b>
The most important concern in this company is each person's own sense of right and wrong	-0.063	0.245	-0.166	<b>-0.632</b>

Table 2 depicts the factor loadings of the four factors of ethical climate, with the loadings in bold: Factor 1 (Law and code/ caring), Factor 2 (Instrumental), Factor 3 (Caring and Rules), and Factor 4 (Independence). The inter-correlations of the four factors are reported in Table 3.

**TABLE 3**  
**ETHICAL CLIMATE INTER-CORRELATION OF THE FOUR COMPONENTS**

Factor	Law and code/caring	Instrumental	Caring and rules	Independence
1	1.000	0.190	-0.524	-0.178
2	0.190	1.000	-0.071	-0.328
3	-0.524	-0.071	1.000	0.247
4	-0.178	-0.328	0.247	1.000

Table 3 indicates a weak inter correlation between the four ethical climate factors. This indicates that the four factors are independent.

A Confirmatory Factor Analysis of the four factors of ethical climate indicated a good fit with the data according to Hair, Black, Babin, Anderson and Tatham (2006). The indices are reported as: Bentler-Bonnet Non-Normed Fit = .92; Comparative Fit Index = 0.93; Bollen's Fit Index = 0.96. The Root Mean-Square Error of Approximation approached zero at 0.07, falling within the 90% confidence interval of between 0.06 and 0.09. The Cronbach Alpha for the total scale was 0.89. The individual reliabilities of the scales had strong Cronbach Alphas: law and code/caring (0.94), instrumental (0.82), caring and rules (0.92), and independence (0.86). In answering research question 1, though the final 4-component structure measures reliably, it did not replicate the nine factors of the original scale.

*Research Question 2: Does Psychological capital scale measure reliably?*

Exploratory and Principal Factor Analysis with Oblimin Kaiser Rotation indicated four components with Eigen values above one, supported by a Scree Plot levelling off after the fourth factor. For this reason and due to the four factors of the original instrument, a four factor Principal Factor Analysis with Oblimin Kaiser Normalization was done. The pattern matrix loadings are reported in Table 4.



**TABLE 4**  
**PATTERN MATRIX OF THE PSYCHOLOGICAL CAPITAL SCALE BY MEANS OF**  
**PRINCIPAL FACTOR ANALYSIS WITH OBLIMIN KAISER ROTATION**

Item	Optimism/ Hope	Self-efficacy	Adverse resilient experiences	Positive Resilient reactions
I approach this job as if "every cloud has a silver lining"	<b>0.919</b>	-0.370	0.069	0.377
I always look on the bright side of things regarding my job	<b>0.796</b>	-0.526	0.109	0.538
At this time, I am meeting the work goals that I have set for myself	<b>0.769</b>	-0.445	0.075	0.533
When things are uncertain for me at work, I usually expect the best	<b>0.712</b>	-0.283	0.067	0.344
I'm optimistic about what will happen to me in the future as it pertains to work	<b>0.688</b>	-0.322	-0.028	0.372
I feel confident contributing to discussions about the company's strategy	0.549	<b>-0.874</b>	-0.014	0.346
I feel confident helping to set targets/goals in my work area	0.435	<b>-0.856</b>	-0.086	0.236
I feel confident presenting information to a group of colleagues	0.425	<b>-0.841</b>	0.107	0.528
I feel confident in representing my work area in meetings with management	0.483	<b>-0.820</b>	0.112	0.576
I feel confident contacting people outside the company (e.g., suppliers, customers) to discuss problems	0.305	<b>-0.758</b>	0.040	0.277
When something can go wrong for me at work wise, it will	-0.173	0.212	<b>0.656</b>	-0.303
In this job, things never work out the way I want them to	0.163	-0.071	<b>0.650</b>	0.078
When I have setback at work, I have trouble recovering from it, moving on	0.035	-0.101	<b>0.426</b>	-0.124
I can be "on my own", so to speak at work if I have to	0.439	-0.382	-0.178	<b>0.793</b>
I can get through difficult times at work because I have experienced difficulty before	0.474	-0.477	-0.105	<b>0.769</b>
I usually manage difficulties one way or another at work	0.377	-0.316	-0.123	<b>0.715</b>
I usually take stressful things at work in stride	0.330	-0.117	-0.080	<b>0.526</b>

Table 4 depicts the factor loadings of the four factors of psychological capital: Factor 1 (Optimism/Hope), Factor 2 (Self-efficacy), Factor 3 (Resilience to adverse experiences), Factor 4 (Positive Resilient reactions). Table 5 illustrates the inter-correlation of the four psychological capital factors.

**TABLE 5**  
**PSYCHOLOGICAL CAPITAL INTER-CORRELATION OF THE FOUR FACTORS**

<b>Factor</b>	<b>Optimism/Hope</b>	<b>Self-efficacy</b>	<b>Resilience adverse experiences</b>	<b>Positive Resilient reactions</b>
<b>Optimism/ hope</b>	1.000	-0.436	0.051	0.490
<b>Self-Efficacy</b>	-0.436	1.000	-0.034	-0.357
<b>Adverse Resilient Experiences</b>	0.051	-0.034	1.000	-0.129
<b>Positive Resilient reactions</b>	0.490	-0.357	-0.129	1.000

Table 5 shows a high common variance (24%) between optimism/hope with positive resilient reactions. All the other factors had a weak inter-correlation, showing their independence.

The Confirmatory Factor Analysis of the four-factor Psychological Capital Scale showed a reasonable fit with the data according to Hair *et al.* (2006), with Indices varying between 0.89 Bentler-Bonnet Non-Normed Fixed Index and 0.90 Bollen's and McDonald's Indices. Root Mean-Square Error of Approximation (RMSEA) was approaching zero at 0.10 falling within the 90% confidence interval of between 0.08 and 0.12.

In answering research question two, the Principal Factor Analyses with Kaiser Oblimin rotation delivered four factors that measured reliably. The four factors did however did not replicate the 24 items of the original Luthans *et al.* (2007) scale. Only 17 of the original 24 items loaded at an acceptable level >0.30. Items that loaded <0.30 or cross-loaded more than 0.25 were deleted from the analysis. The factor loadings differed from the original loadings. Where the original scale had four factors measuring self-efficacy, hope, resilience and optimism, the current scale measured optimism and hope on one scale, self-efficacy on another scale, and resilience was split into two scales: adverse resilient experiences and positive resilient reactions.

*Research Question 3: Can ethical climate predict Psychological capital?*

The prediction of Psychological Capital by Ethical Climate factors are presented in Figure 1. In the Structural Equations Model, Ethical Climate factors are the independent variables and Psychological Capital factors are the dependent variables. The asterisk shows statistical significance at 95% level of significance.

**FIGURE 1**  
**STRUCTURAL EQUATION MODEL: ETHICAL CLIMATE PREDICTION OF**  
**PSYCHOLOGICAL CAPITAL**

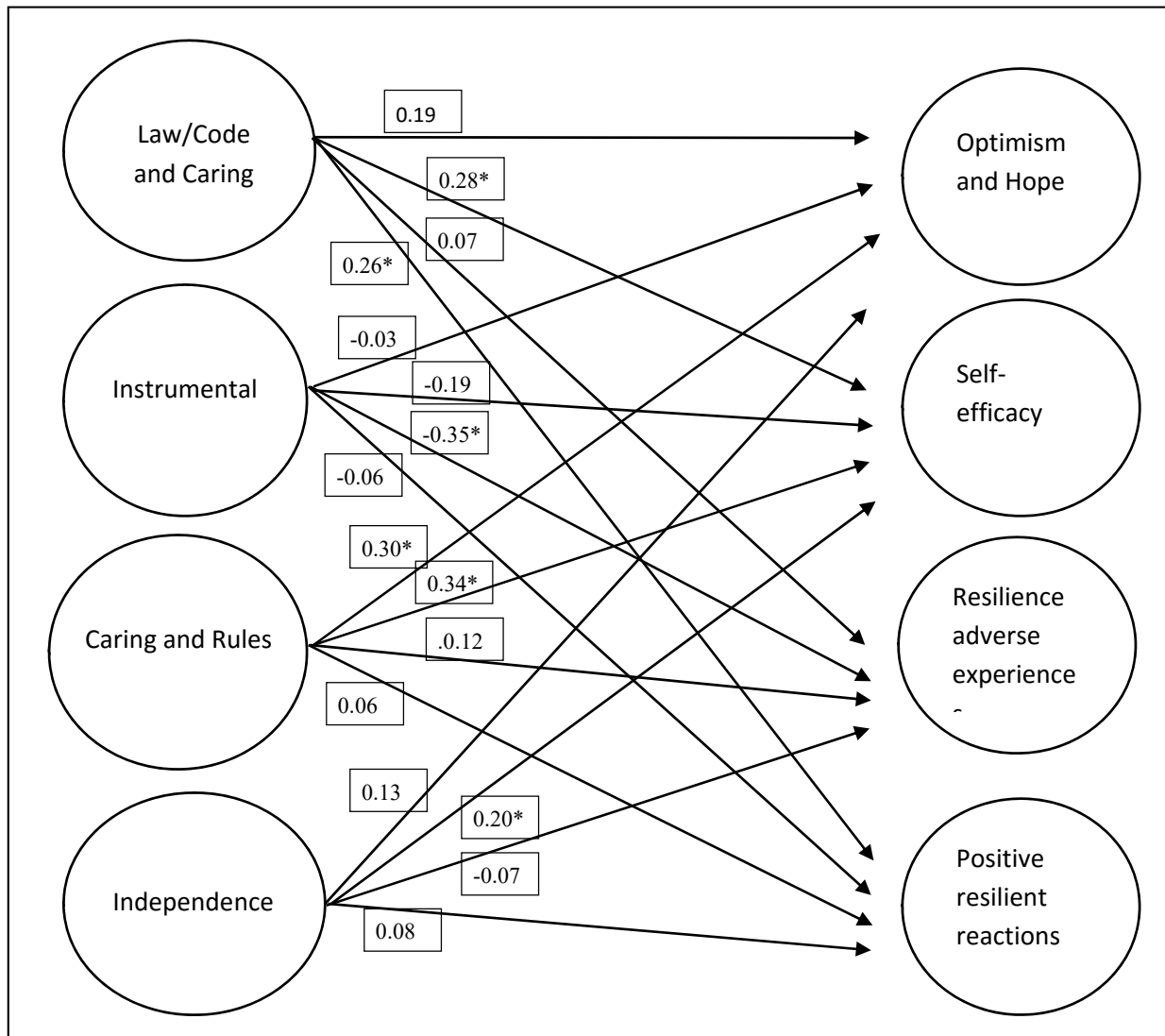


Figure 1 indicates a significant positive prediction of psychological capital factor 1 (optimism and hope) by ethical climate factor 3 (caring and rules). Psychological capital factor 2 (self-efficacy) was significantly positively predicted by the ethical climate factor 3 (caring and rules) and factor 4 (independence). Psychological capital factor 3 (resilience adverse experiences) was significantly negatively predicted by ethical climate factor 2 (instrumental). Psychological capital factor 4 (positive resilient reactions) was significantly positively predicted by ethical climate factor 1 (law and code/caring). Therefore it can be concluded that there is a significant prediction of psychological capital components by some of the ethical climate scales. The Confirmatory Factor Analysis of the Structural Equation Model, Figure 4.3, shows a weak fit with the data; Bentler-Bonnet Non-Normed Fit Index= 0.80, Comparative Fit Index= 0.82, and Bollen's Fit Index=0.83. Root Mean-Square Error of Approximation was at an acceptable level at 0.06, approaching zero and falling within the 90% confidence interval of between 0.05 and 0.07. Further research with larger samples need to be done to verify the generalizability of these findings.

## **DISCUSSION**

This study aimed to evaluate the prediction of ethical climate (laws and code, rules, caring, independence and instrumental) with psychological capital as an outcome variable (hope, self-efficacy, resilience and optimism). A number of predictions were achieved from this study. These results are similar to those obtained in the Golparvar and Azarmonabadi (2014) study where self-efficacy and hope is significantly predicted by service and independence, resiliency is significantly predicted by laws and rules, while self-efficacy was predicted by service. These significant influences are an indication that well governed ethical policies could lead to other positive outcomes in business such as lower turnover, work commitment, increased performance and an overall healthy psychological climate.

The main research question was answered by means of the Structural Equation Model. The findings predicted that psychological capital Factor 1 optimism and hope, was predicted significantly by ethical climate factor 3, caring and rules. This is an indication that the more people experience caring and rules the more optimism and hope they experience. Psychological capital Factor 2, self-efficacy was significantly predicted by ethical climate Factors 1 (law and code), Factors 3 (caring and rules) and Factor 4 (independence). This means that the more people abide and care about laws and rules, and are self-driven to comply to moral behaviour, the higher their self-efficacy. Psychological capital Factor 3, resilience to adverse experiences, was significant negatively predicted by ethical climate factor 2, instrumental. This is an indication that the more the company is concerned about its self-interest and cost control, than its moral interests, the significantly less resilient people become. Psychological capital factor 4, positive resilience was significantly positively predicted by law/code and caring. This is an indication that the more confidence there is in the application of law, code and caring in the business, the more resilient people become, as they probably feel protected by the enforcement of rules.

### **Limitations and future research**

This study is South African based, in only one large branch of a national bank. The results are not fully generalizable. As this sample is selected in a bank branch, it is not representative of other branches in the bank, other business sectors in South Africa, or to other countries. The sample size was rather small, which could have led to the fact that the factors of the two instruments did not load similar to the original instruments.

Future research should duplicate the study across different organisations in South Africa and in other countries. The ethical climate framework is very complex. Researchers will have to explore the dynamics of ethical climate more in depth to understand the core principles and ethical climate types and the possible influence in business. Psychological capital could play a significant role in organisations. Practical guidelines should be developed to improve psychological capital excellence in organisations. The possible reciprocal effect of psychological capital on ethical climate should also be investigated.

### **Contribution**

This study contributes to the existing knowledge of ethical climate and psychological capital. The difference in the factor loadings of the Ethical Climate Questionnaire (Victor and Cullen 1988) and Psychological Capital Questionnaire (Luthans, Youssef, *et al.*, 2007) is informative. Only four factors featured in the factor analysis of the Ethical Climate Questionnaire (Victor and Cullen 1988), instead of the nine original factors. The factor loadings of the Psychological Capital Questionnaire (Luthans, Youssef, *et al.*, 2007), indicates that this sample does not differentiated between hope and optimism, while resilience is seen as either positive controllable, or negative uncontrollable. The prediction of psychological capital by means of ethical climate is a first in South Africa.

## Implications for management

The indication is that people find it challenging to remain resilient when companies do not take ethical rules seriously. Management should be aware that the more people are aware that ethical codes and law are enforced, the more resilient, optimistic and hopeful their work-force will be, possibly feeling protected and secure by strict and enforced rules. This means that rules alone do not provide the protection; it is also the enforcement of the rules that encourages individuals to remain hopeful, optimistic and resilient with strengthened self-efficacy. Human resource management should apply this knowledge through their training and development programs, focusing on areas such as organisational behaviour, and ethical practices. Human resource management should also invest in psychological capital practices, as this attribute may help individuals deal with stress and anxiety at work. This could lead to improved overall self-efficacy, hope, resilience and optimism.

## Conclusion

The current study has provided renewed insight into the prediction of psychological capital. The findings emphasise the importance that the enforcement of ethical rules provide security in strengthening workforce psychological capital. This is an indication that management should provide the security of a climate where rules are enforced and respected. Such a healthy ethical climate environment strengthens security of employees, enhancing their psychological capital. This in turn provides a competitive advantage to business.

## REFERENCES

- Aşçigil, S. F. and Parlakgümüş, A. B. 2012. Ethical work climate as an antecedent of trust in co-workers. *Business & Professional Ethics Journal*, 31(3/4): 399–417. <http://doi.org/10.5840/bpej2012313/421>
- Atabay, G., Cangarli, B. G. and Penbek, S. 2015. Impact of ethical climate on moral distress revisited: Multidimensional view. *Nursing Ethics*, 22(1): 103–116.
- Avey, J. B., Luthans, F. and Jensen, S. M. 2009. Psychological capital: A positive resource for combating employee stress and turnover. *Human Resource Management*, 48(5): 677–693. <http://doi.org/10.1002/hrm>
- Avey, J. B., Luthans, F., Smith, R. M., Palmer, N. F., Avey, J. B., Luthans, F., Palmer, N. F. 2010. Impact of positive psychological capital on employee well-being over time well-being over time. <http://doi.org/10.1037/a0016998>
- Birtch, T. a. and Chiang, F. F. T. 2014. The influence of business school's ethical climate on students' unethical behavior. *Journal of Business Ethics*, 123(2): 283–294. <http://doi.org/10.1007/s10551-013-1795-y>
- Çetin, F. 2011. The effects of the organizational psychological capital on the attitudes of commitment and satisfaction: A public sample in Turkey. *European Journal of Social Sciences*, 21(3): 379–380.
- Culbertson, S., Fullagar, C. and Mills, M. 2010. Feeling good and doing great: the relationship between psychological capital and well-being. *Journal of Occupational Health Psychology*, 15(4): 421–433.
- Cullen, J. B., Victor, B. and Bronson, J. W. 1993. The ethical climate questionnaire: an assessment of it's development and validity. *Psychological Reports*, 73: 667–674.
- Davis, G., Pecar, G., Santana, L. and Burke, A. 2014. *Statistics for social sciences using Excel: A first course for South African students*. Cape Town: Oxford University Press.
- Diržytė, A., Patapas, A., Smalskys, V. and Udavičiūtė, V. 2013. Relationship between organizational commitment, job satisfaction, and positive psychological capital in Lithuanian organizations.

*International Journal of Business and Social Science*, 4(12): 115–122.

Etebarian, A., Tavakoli, S. and Abzari, M. 2012. The relationship between psychological capital and organizational commitment. *African Journal of Business Management*, 6(14): 5057–5060.  
<http://doi.org/10.5897/ajbm11.2844>

Golparvar, M. and Azarmonabadi, A. R. 2014. Explaining psychological capital components through organization's ethical climate components. *International Journal of Business, Economics and Management*, 1(8): 216–228.

Guerci, M., Radaelli, G., Siletti, E., Cirella, S. and Rami Shani, A. B. 2015. The impact of human resource management practices and corporate sustainability on organizational ethical climates: An employee perspective. *Journal of Business Ethics*, 126: 325–342. <http://doi.org/10.1007/s10551-013-1946-1>

Hsu, S., Wang, Y., Chen, Y. and Dahlgaard-Park, S. M. 2014. Building business excellence through psychological capital. *Total Quality Management*, 25(11): 1210–1223.  
<http://doi.org/10.1080/14783363.2014.913349>

Hui, Q., Cao, X., Lou, L. and He, H. 2014. Empirical research on the influence of organizational support on psychological capital. *American Journal of Industrial and Business Management*, 4(1): 182–189. <http://doi.org/10.4236/ajibm.2014.44025>

Hung, Y.-C. and Tsai, T.-Y. 2016. Ethical work climate and organizational citizenship behavior in the Taiwanese military. *Military Psychology*, 28(1): 34–49. <http://doi.org/10.1037/mil0000096>

Larson, M. and Luthans, F. 2006. Potential added value of psychological capital in predicting work attitudes. *Journal of Leadership & Organizational Studies*, 13(2): 75–92.  
<http://doi.org/10.1177/10717919070130020601>

Luthans, F., Avey, J., Avolio, B. and Peterson, S. 2010. The development and resulting performance impact of positive psychological capital. *Human Resource Development Quarterly*, 21: 41–67.  
<http://doi.org/10.1002/hrdq.20034>

Luthans, F., Avolio, B., Avey, J. B. and Norman, S. M. 2007. Psychological capital: Measurement and relationship with performance and job satisfaction. *Personnel Psychology*, 60: 541–572.  
<http://doi.org/10.1111/j.1744-6570.2007.00083.x>

Luthans, F., Avolio, B., Walumbwa, F. and Li, W. 2005. The psychological capital of Chinese workers: Exploring the relationship with performance. *Management Organization Review*, 1(2): 249–271. <http://doi.org/10.1111/j.1740-8784.2005.00011.x>

Luthans, F., Luthans, K. W. and Luthans, B. C. 2004. Positive psychological capital : Beyond human and social capital. *Business Horizons*, 47(1): 45–50.

Luthans, F., Youssef, C. and Avolio, B. 2007. *Psychological capital: Developing the human competitive edge*. Cary, NC, USA: Oxford University Press.

McMurray, A. J., Merlo, A. P., Sarros, J. C. and Islam, M. M. 2010. Leadership, climate, psychological capital, commitment, and wellbeing in a non-profit organization. *Leadership and Organization Development Journal*, 31(5): 436–457. <http://doi.org/10.1108/01437731011056452>

Mulki, J. P., Jaramillo, J. F. and Locander, W. B. 2008. Effect of ethical climate on turnover intention: Linking attitudinal and stress theory. *Journal of Business Ethics*, 78: 559–574.  
<http://doi.org/10.1007/S10551-007-9368-6>

Naran, V. 2013. *Psychological capital and work-related attitudes: The moderating role of a supportive organisational climate*. Johannesburg, South Africa: Unpublished master's thesis, University of the Witwatersrand.

O'Donohue, W., Martin, A. and Torugsa, N. 2015. Understanding individual responses to failure by the organisation to fulfil its obligations: Examining the influence of psychological capital and psychological contract type. *Human Resource Management Journal*, 25(1): 131–147.

<http://doi.org/10.1111/1748-8583.12055>

Peterson, S. and Byron, K. 2008. Exploring the role of hope in job performance: Results from four studies. *Journal of Organizational Behavior*, 29(6): 785–803. <http://doi.org/10.1002/job.492>

Rothwell, G. R. and Baldwin, J. N. 2007. Ethical climate, theory, whistle-blowing and the code of silence in police agencies in the state of Georgia. *Journal of Business Ethics*, 70: 341–361. <http://doi.org/10.1007/s10551-006-9114-5>

Şahin, D. R., Cubuk, D. and Uslu, T. 2014. The effect of organizational support, transformational leadership, personnel empowerment, work engagement, performance and demographical variables on the factors of psychological capital. *Emerging Markets Journal*, 3(3): 1–17. <http://doi.org/10.5195/emaj.2014.49>

Saunders, M., Lewis, P. and Thornhill, A. 2009. *Methods for business students*. New York: Prentice Hall.

Schwepker, C. H. and Schultz, R. J. 2015. Influence of the ethical servant leader and ethical climate on customer value enhancing sales performance. *Journal of Personal Selling & Sales Management*, 35(2): 93–107. <http://doi.org/10.1080/08853134.2015.1010537>

Seligman, M. E. 1988. *Learned optimism*. New York: Pocket Books.

Shacklock, A., Manning, M. and Hort, L. 2011. Dimensions and types of ethical climate within public sector human resource management. *Journal of New Business Ideas & Trends*, 9(1): 51–66.

Shafer, W. E. (2015). Ethical climate, social responsibility, and earnings management. *Journal of Business Ethics*, 126: 43–60. <http://doi.org/10.1007/s10551-013-1989-3>

Tseng, F. C. and Fan, Y. J. 2011. Exploring the influence of organizational ethical climate on knowledge management. *Journal of Business Ethics*, 101: 325–342. <http://doi.org/10.1007/s10551-010-0725-5>

Victor, B. and Cullen, J. B. 1988. The organizational bases of ethical work climates. *Administrative Science Quarterly*, 33: 101–125.

Wang, Y. De and Hsieh, H. H. 2012. Toward a better understanding of the link between ethical climate and job satisfaction: A multilevel analysis. *Journal of Business Ethics*, 105: 535–545. <http://doi.org/10.1007/s10551-011-0984-9>

Wu, S. 2015. Exploring the effects of psychological capital and social capital on team creativity in ISD teams. *International Journal of Organizational Innovation*, 7(3): 34–47.