

# The influence of ethical leadership and climate on employee work engagement

**Authors:**Nelson Gwamanda<sup>1</sup>   
Bright Mahembe<sup>1</sup> **Affiliation:**<sup>1</sup>Department of Industrial Psychology, Faculty of Economic Management Sciences, University of the Western Cape, Bellville, South Africa**Corresponding author:**Bright Mahembe,  
bmahembe@uwc.ac.za**Dates:**

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**Orientation:** Ethical leadership is crucial in fostering work engagement among employees in organisations.

**Research purpose:** This study aimed to empirically validate a theoretical model explicating the structural relationships between ethical leadership, ethical climate and work engagement.

**Motivation for the study:** The central role of work engagement in sustaining competitive advantage calls for an analysis of the role of ethical leadership and climate in enhancing an engaged workforce.

**Research approach/design and method:** A non-probability convenience sample consisting of 304 participants was drawn from 10 selected private security companies.

**Main findings:** High levels of reliability were found, and the unidimensionality of the subscales was confirmed through exploratory factor analyses. A good fit with the data was found for the measurement models through confirmatory factor analysis. Structural equation modelling showed a reasonable fit for the structural model. Positive relationships were found between ethical leadership, climate and work engagement.

**Practical/managerial implications:** The findings emphasise the role of ethical leadership and climate in work engagement. Ethical leadership fosters work engagement if employees perceive their leaders as ethical and if there is provision of favourable, transparent policies and procedures.

**Contribution/value-add:** Ethical leadership alone may not be a sufficient condition for employee work engagement; other variables such as a positive ethical climate also play a role. The study suggests specific variables that may also combine with leadership to positively influence work engagement.

**Keywords:** Ethical leadership; work engagement; ethical climate; reliability; measurement model; goodness of fit; structural model; exploratory factor analysis; confirmatory factor analysis.

## Introduction

In the new global economy, work engagement has become one of the central components that enhances the competitive advantage of organisations (Pandita & Ray, 2018; Van Der Walt, 2018). Work engagement plays a significant role in several organisational outcomes including perceived service delivery, employees' innovative work behaviours, better work performance and personal initiative (Lisbona et al., 2018; Milliman et al., 2018; Nazir & Islam, 2020). Moreover, work engagement is indispensable in the Zimbabwean context because of the prolonged economic turbulence over the last two decades, resulting in many companies operating below capacity and with low levels of engagement (Long & Ascent, 2020). The fostering of work engagement within organisations may therefore advance the development of workplaces that value employees' needs and enhance commitment and employee satisfaction. Organisations with highly engaged employees would promote the dignity and ethical conduct of their members, thereby enhancing competitiveness.

Organisations ought to maintain a positive ethical climate to cultivate high levels of work engagement among employees (Pagliaro et al., 2018). A positive ethical climate serves as a crucial organisational resource, with elements that can impact work engagement (Mitonga-Monga, 2018). When employees sense that their organisation values and rewards ethical behaviour, their sense of purpose is elevated and there is a likelihood of an improved meaning in their work, as they believe that their contributions are important and aligned with their personal values. This can lead to increased work engagement as individuals feel more motivated and committed to their work.

An ethical climate signifies the degree to which employees are conscious of their moral responsibilities within an organisation (Wang & Hsieh, 2012). In an ethical climate, employees adhere to rules and standards regarding fairness and responsibility, thereby enhancing their performance (Luria & Yagil, 2008). Ethical climates stem from the policies and practices established by leaders, which significantly impact ethical decision-making and foster positive work attitudes and behaviour (Aryati et al., 2018; Lemoine et al., 2019; Schminke et al., 2007; Simha & Cullen, 2012). Ethical climate is, to a greater extent, shaped by the perceived consequences of ethical behaviour. When employees perceive that engagement in ethical behaviour leads to positive rewards, they are likely to display actions that lead to positive reinforcement.

Leaders play a significant role in ensuring that an enabling environment exists for organisations to flourish. Ethical leaders can nurture an environment that enhances the development of a positive ethical climate through supporting behaviours towards their followers (Kuenzi et al., 2020). They have the capacity to make decisions that reflect their moral values and principles even in challenging or complex situations (O'Keefe et al., 2020). According to Aryati et al. (2018), the context under which the organisation operates is critical for leaders because they can regulate that environment rather than transform the moral development of individuals or their values.

Ethical leaders motivate their followers to embrace a shared vision, make challenging choices rooted in strong ethical principles, and actively cultivate a community founded on the principles of social justice (Demirtas & Akdogan, 2015). Ethical leaders understand and empathise with the varying perspectives and experiences of others, are compassionate, treat others fairly and equitably, and work to create a culture of inclusivity and diversity. Ethical leadership is demonstrated through normatively appropriate conduct in the form of individual actions and interpersonal relationships, and the advancement of such conduct to followers through effective communication, performance feedback and principled decision-making (Brown et al., 2005; Özsungur, 2020). Ethical leaders assist their followers in recognising the significance of their roles, leading to enhanced dedication and increased productivity (Habiba et al., 2019).

Although the body of literature on work engagement and ethical leadership is expanding, no research has been conducted on the correlation between ethical leadership, climate and work engagement within the security sector in Zimbabwe. Understanding work engagement in the security sector is crucial, as it is likely to diminish the inclination towards engaging in destructive behaviour, which could result in substantial financial costs.

## Purpose of the study

The question that sets the study in motion is, therefore, why does variance exist in work engagement regarding the

influence of ethical leadership and ethical climate? The purpose of the study was to design and conduct an analysis of the relationship between ethical leadership, ethical climate and work engagement. The secondary goal was to validate a theoretical model explicating the structural relationships between these variables in selected security organisations in Zimbabwe. There is a need for such research, as no such study has been conducted in Zimbabwe to address this problem. The relevance of this study is justified by the influence of work engagement on positive organisational outcomes, such as individual well-being, job performance and ultimately organisational success. Moreover, the study suggests interventions to nurture higher levels of work engagement in organisations.

## Literature review

### Conceptualising work engagement

Work engagement is a construct that falls under the realm of positive psychology. The widely accepted definition of work engagement is anchored in one's ability to experience a positive and mentally fulfilling feeling of absorption, dedication and vigour (Schaufeli et al., 2002). Work engagement has been linked to several positive work outcomes such as organisational commitment (Kul, 2017), reduced absenteeism (Neuber et al., 2022), low turnover intention (Holm et al., 2023) and enhanced job performance (Gruman & Saks, 2011; Lisbona et al., 2018), among several other positive outcomes. Harter et al. (2002, as cited in Simpson, 2009, p. 45) found the following conditions to be vital for the development of work engagement among employees:

- a sense of contributing to the organisation
- clear expectations and access to essential resources
- opportunities for growth and progress discussions
- a sense of belonging to something larger. The effectiveness of an ethical leader significantly influences the fulfilment of conditions (2) and (3).

In terms of theoretical development, Saks (2006) viewed work engagement through the lens of social exchange theory (SET). This model of work engagement suggests that, within the employer-employee relationship, particular guidelines should develop into trust and dedicated interactions as time progresses. These rules encompass individual behaviours that elicit reactions from others (Saks, 2006).

The three-dimensional conceptualisation of work engagement by Schaufeli et al. (2002) is a widely accepted definition of work engagement. This is evidenced by its use in several studies that have used work engagement as a construct (Adnan et al., 2020; Habiba et al., 2019; Özsungur, 2020; Pagliaro et al., 2018). This conceptualisation defines work engagement as manifested by vigour, dedication and absorption (Bakker et al., 2007). Work engagement is defined as a positive motivational and work-related state characterised by vigour, dedication and absorption (Schaufeli & Bakker, 2004). Vigour pertains to a state in which employees experience high levels of exuberance and mental strength when doing their work and have the desire to exert extra effort and

determination in the face of challenges. Dedication relates to experiencing a sense of meaning, pride, excitement and challenge. Absorption refers to engrossment in work (Bakker et al., 2007). The current study adopted this three-factor structure of work engagement because it is widely used.

### Conceptualising ethical climate

Arnaud (2010) defined an ethical climate as 'a moral concept reflecting the content and strength of the prevalent ethical values, norms, attitudes, feelings, and behaviours of the members of a social system'. Arnaud expanded the theoretical framework of ethical work climate by encompassing elements of ethical decision-making, incorporating moral character, moral sensitivity, collective moral motivation and the dimension of moral reasoning. Nevertheless, further empirical research is required within the confines of this conceptual framework. The lack of empirical research in this area might be due to the widespread acceptance of Victor and Cullen's conceptual framework.

Different viewpoints exist with regards to the conceptualisation of ethical climate. For example, Victor and Cullen (1988) argued that the ethical climate exists in different forms which can be categorised as benevolence, egoism and principles. These three ethical climate models are linked to the cosmopolitan, the individual and the local referents (Victor & Cullen, 1987). The three ethical climate forms namely benevolence, egoism and principles were later revised due to a lack of empirical evidence to instrumental, caring, independence, law and codes, and rules. This occurs because favourable climates guarantee adherence to procedures, laws, or organisational policies and alignment with one's individual ethical principles (Leung, 2008; Martin & Cullen, 2006; Wimbush et al., 1997). Despite the revision of the original conceptualisation of ethical climates by Victor and Cullen, literature shows that both conceptualisations are still used to study ethical climates in organisations (e.g. Parboteeah & Kapp, 2008; Putranta & Kingshott, 2011).

### Conceptualising ethical leadership

Brown et al. (2005) define ethical leadership as the 'demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement and decision-making'. There is no one universally accepted definition of ethical leadership. This is evidenced by the differences in the manifest behaviours that different authors have proposed in their quest for a uniform definition (see Table 1). In the present study, the conceptualisation offered by Brown et al. (2005) was adopted. The authors delineated the manifest variables of ethical leadership, encompassing fair treatment of employees, communication responsiveness, trust, and a behavioural model centred around caring for and actively listening to employees. This model has been influenced by the social learning theory (Bandura, 1977, 1986) in that ethical leaders serve as exemplars, offering guidance and ethical

**TABLE 1:** Conceptualisation of ethical leadership.

Author	Conceptualisation
Treviño et al. (2000)	Honesty, good character, trustworthiness, approachability and empathy for employee welfare
Khuntia and Suar (2004)	Motivating, empowering, and building the character of followers
Brown et al. (2005)	Suggested six dimensions of ethical leadership, including treating employees fairly, communication response, trust and a behaviour model concerning and listening to employees
Mayer et al. (2012)	Emphasise on three building blocks of ethical leadership: (1) being an ethical example, (2) treating people fairly and (3) actively managing morality

conduct by embodying fairness, trustworthiness, empathy and a genuine concern for others (Brown & Treviño, 2006). Hence, highly ethical organisations are likely to result in the development of more ethical leaders. Brown and Treviño (2006) opine that ethical leaders tend to establish guidelines and standards that encourage ethical behaviour and actively support its practice.

### The relationship between ethical leadership and work engagement

When followers view their leaders as ethical, they tend to develop greater trust, work engagement and respect for them, leading to a stronger perception of meaningful and purposeful work (Özsungur, 2020). Ethical leaders foster employee engagement by granting them the independence to make significant decisions within the workplace (Mitonga-Monga, 2018). Ethical leaders constantly communicate with their followers, thereby promoting the clarity of goals and expectations (Adnan et al., 2020; Özsungur, 2020). Organisations with ethical leadership promote fairness and equal treatment of employees, which creates a conducive environment that nourishes employees' work engagement (Engelbrecht et al., 2017; Habiba et al., 2019; Zeng & Xu, 2020). When employees feel they are treated justly and respectfully, they tend to experience psychological safety and a sense of belonging, factors that can enhance their work engagement (Habiba et al., 2019). Thus, ethical leaders are recognised for their capacity to show compassion and thoughtfulness when addressing the needs of their employees, resulting in feelings of dedication (Tims et al., 2011). Ng and Feldman (2015) confirmed that positive organisational performance is enhanced by a strong association between ethical leadership and employee work engagement. When employees observe ethical behaviour in their leaders, they tend to demonstrate increased levels of engagement. Hence it can be hypothesised that:

**Hypothesis 1:** *Ethical leadership has a significantly positive effect on work engagement.*

### The relationship between ethical leadership and ethical climate

The presence of ethical leadership in an organisation cultivates an environment conducive to the growth of an ethical climate (Naeem et al., 2020; O'Keefe et al., 2020). Leaders establish policies and devise practices, values and procedures that encourage the perception of an ethical

climate. They are more inclined to enforce policies and practices in line with these values, fostering a culture that sustains ethical behaviour (Aryati et al., 2018; Kuenzi et al., 2020). Ethical leaders model their followers to behave within the confines of ethical norms and processes and in ways that demonstrate ethical consciousness, which create a positive ethical climate where ethical behaviour is valued and rewarded (Al Halbusi et al., 2021; Kuenzi et al., 2020). Ethical policies, rules and reward systems also enhance the construction of an ethical climate and substantially impact employees' ethical behaviour and adjustment (Kul, 2017; Naiyananont & Smuthranond, 2017). Thus, it can be postulated that:

**Hypothesis 2:** *Ethical leadership has a significant positive effect on an organisation's ethical climate.*

### The relationship between ethical climate and work engagement

Organisations that nurture positive ethical climates have highly engaged employees (Ghani et al., 2017). This is made possible when there is a provision of favourable, transparent policies and procedures that propel employees' ability to be engaged in their work (Demirtas et al., 2017). Positive ethical climates within an organisation signify resources in the form of practices and processes that prompt moral behaviours (Mitonga-Monga, 2018). A link has been found between a positive ethical climate and psychological presence and flow, as individuals feel fully absorbed and present in their work (Potipiroon & Wongpreedee, 2021). Elevated levels of caring, rules, law and codes are associated with higher levels of work engagement, implying that creating a positive ethical climate influences the extent to which employees engage (Bai et al., 2019):

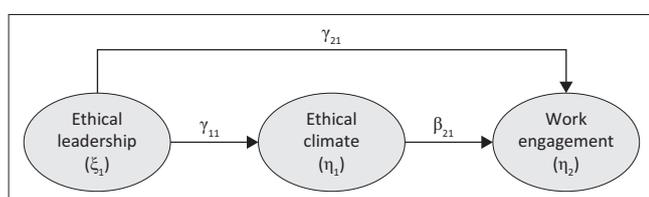
**Hypothesis 3:** *Ethical climate has a significant positive effect on work engagement in an organisation.*

### Conceptual model

Figure 1 depicts the theoretical model developed from an in-depth study of the literature. In addition, Figure 1 shows the specific causal relationships (hypotheses) among the three latent variables used in the study. In this model, ethical leadership is modelled as an independent or exogenous variable, whereas ethical climate and work engagement are presented as endogenous variables.

### Hypotheses

**Hypothesis 1:** The overarching research hypothesis for the close fit null hypothesis.



**FIGURE 1:** A theoretical model of the relationships between ethical leadership, ethical climate and work engagement.

$H_{01}$ : RMSEA < 0.05

$H_{a1}$ : RMSEA > 0.05

To test the validity of the proposed relationships in the structural model, the following specific hypotheses were tested:

**Hypothesis 2:** Ethical leadership ( $\xi_1$ ) has a significant positive effect on work engagement ( $\eta_2$ ) ( $H_{02}$ :  $\gamma_{21} = 0$ ;  $H_{02}$ :  $\gamma_{21} > 0$ ).

**Hypothesis 3:** Ethical leadership ( $\xi_1$ ) has a significant positive effect on ethical climate ( $\eta_1$ ) ( $H_{03}$ :  $\gamma_{11} = 0$ ;  $H_{03}$ :  $\gamma_{11} > 0$ ).

**Hypothesis 4:** Ethical climate ( $\eta_1$ ) has a significant positive effect on work engagement ( $\eta_2$ ) ( $H_{04}$ :  $\beta_{21} = 0$ ;  $H_{04}$ :  $\beta_{21} > 0$ ).

## Research design

### Sample

This study used a non-probability convenience sampling technique. The sample consists of 318 employees from selected security companies in Zimbabwe. The sample comprised 222 males (69.9%) and 91 females (28.9%). All participants were black Africans, most of whom were non-managerial employees. Most participants (64.5%) were permanent employees, while 24.7% were on contract. Hardcopy questionnaires were printed and distributed to the participants. A few online questionnaires were distributed to those who were not physically available and had access to the internet.

### Measurement instruments

Three measurement scales were employed to assess the variables of work engagement, ethical climate and ethical leadership.

### Work engagement

The study utilised the 17-item Utrecht Work Engagement Scale (UWES) developed by Schaufeli et al. (2002) to gauge work engagement, employing a six-point Likert scale. The Cronbach's alpha coefficients ( $\alpha$ ) for the three dimensions of UWES are above 0.70 (Rothmann, 2003; Schaufeli & Bakker, 2003). Example items for the vigour subscale include 'At my work, I feel bursting with energy'. Example items for the absorption subscale include 'Time flies when I am working'. Example items for the dedication subscale include 'To me, my job is challenging'.

### Ethical climate

The 26-item ethical climate questionnaire (ECQ) by Victor and Cullen (1988) was used to measure the ethical climate. The questionnaire has five subscales: caring with seven items, law and code with four items, rules with four items, instrumental with seven items, and independence with four items measured on a six-point Likert scale. The internal consistency reliability of the five subscales of the ECQ ranges from Cronbach's alpha coefficients of  $\alpha = 0.69$  to  $\alpha = 0.92$  (Wolmarans, 2014) – caring: 'What is best for everyone in the company is a major consideration here'; law and code:

'People are expected to comply with the law and professional standards over and above other considerations'; rules: 'It is very important to follow the company's rules and procedures here'; instrumental: 'In this organisation, people protect their own interests above all else', and independence: 'In this company, people are expected to follow their own personal and moral beliefs'.

### Ethical leadership

The measurement of ethical leadership utilised Engelbrecht et al.'s (2017) 17-item Leadership of Ethics Scale (LES). The LES used a 6-point Likert scale, gauging responses from 'strongly disagree' to 'strongly agree'. It demonstrated an excellent level of reliability, reporting a Cronbach's alpha ( $\alpha$ ) of 0.97 (Engelbrecht et al., 2017; Nunnally, 1978). Example items include: 'My supervisor or manager listens to what his or her subordinates have to say' and 'My supervisor or manager can be trusted by his or her subordinates'. The findings from the confirmatory factor analysis (CFA) highlighted the sufficient construct validity of the LES (Engelbrecht et al., 2017).

## Results

### Missing values

The multiple imputation method was used to address missing values which usually plague self-report measures. Data were measured on a scale with five or more values (Mels, 2003).

### Reliability analysis

Item analysis was conducted on all three measurement scales using SPSS version 28 to ascertain consistency in the measurement of the variables. Table 2 presents the results of

**TABLE 2:** Refined measurement scales: Factor loadings and reliability.

Scale	Number of items	CFA factor loadings	Cronbach's alpha
ELQ	17	-	0.94
<b>ECQ</b>			
Caring	7	0.75	0.79
Law	4	0.85	0.86
Rules	4	0.77	0.85
Instrumental	7	0.73	0.86
Independence	4	0.21	0.87
<b>UWES</b>			
Vigour	6	0.92	0.78
Absorption	6	0.90	0.80
Dedication	5	0.88	0.79

CFA, confirmatory factor analysis; ELQ, Ethical Leadership Questionnaire; ECQ, Ethical Climate Questionnaire; UWES, Utrecht Work Engagement Scale.

**TABLE 3:** The goodness-of-fit indices obtained for the refined measurement and structural models.

Model	S-B $\chi^2/df$	RMSEA	$P^{close\ fit}$	SRMR	GFI	NFI	NNFI	CFI	IFI	RFI
Ethical leadership	2.83	0.0776	0.000	0.053	0.84	0.956	0.976	0.979	0.979	0.963
Ethical climate	2.80	0.0771	0.000	0.070	0.87	0.966	0.96	0.97	0.97	0.94
Work engagement	2.72	0.0754	0.000	0.060	0.84	0.967	0.97	0.98	0.98	0.96
Measurement model	2.14	0.0614	0.194	0.0332	0.96	0.976	0.983	0.989	0.989	0.969
Structural model	2.14	0.0614	0.194	0.0332	0.96	0.976	0.983	0.989	0.989	0.969

S-B $\chi^2$ , Satorra-Bentler scaled Chi-square;  $df$ , degrees of freedom; RMSEA, root mean square error of approximation;  $P^{close\ fit}$ ,  $p$ -value of close fit (RMSEA < 0.05); SRMR, standard root mean residual; GFI, goodness-of-fit index; NFI, normed fit index; NNFI, non-normed fit index; CFI, comparative fit index; IFI, incremental fit index; RFI, relative fit index.

the reliability analysis. The Cronbach's alpha reliability coefficients for all the scales were above the minimum requirement of  $\alpha = 0.70$  (Nunnally, 1978; Wimbush et al., 1997). The factor loadings for all the scales were substantially above the minimum requirement of 0.30 except for the independence subscale with 0.21 (Nunnally & Bernstein, 1994; Tabachnick & Fidell, 2013). Consequently, no items were deleted as none posed any threat to the soundness of reliability.

### Evaluating the measurement models

Confirmatory factor analysis was conducted using LISREL 8.80 (Jöreskog & Sörbom, 2006) and the robust maximum likelihood estimation method was used to produce the required estimates. The following indices were used to evaluate the measurement models: the root mean square error of approximation (RMSEA), root mean squared residual (RMR), goodness-of-fit index (GFI), normed fit index (NFI), non-normed fit index (NNFI), comparative fit index (CFI), incremental fit index (IFI) and relative fit index (RFI). Root mean square error of approximation values below 0.05 are suggestive of a good fit, those between 0.05 and under 0.08 are indicative of reasonable fit, values between 0.08 and 0.10 represent mediocre fit, while values > 0.10 indicate poor fit (Diamantopoulos & Siguaw, 2000). The values of the GFI greater than 0.90 are usually considered as indicating an acceptable fit (Diamantopoulos & Siguaw, 2000).

### Goodness of fit: Work engagement scale

The goodness-of-fit indices for the measurement model (see Table 3) of the UWES indicate a reasonable fit in terms of the RMSEA (0.0754) and the  $p$ -value test of close fit (0.000) is below the minimum cut-off. The model did not show an exact fit (Sattora-Bentler  $\chi^2$ :  $p < 0.05$ ). The standardised RMR value of 0.060 was above 0.05, which is indicative of a good fit. The GFI does not exceed 0.90, which is required for a good fit (Diamantopoulos & Siguaw, 2000). All incremental fit indices (NFI, NNFI, IFI, RFI and CFI) exceeded the minimum of 0.90, which suggests a good fit. Thus, the model successfully reproduced the observed covariance matrix.

### Goodness of fit: Ethical climate scale

A reasonable fit was achieved in terms of RMSEA (0.0771). The GFI failed to reach a 0.90 level, which indicates a good fit. Nevertheless, the model did not show an exact fit (Sattora-Bentler  $\chi^2$ :  $p < 0.05$ ). The standardised RMR value of 0.070 fell above 0.05, which is indicative of a good fit. In terms of

incremental fit measures, the measurement model returned NFI, NNFI, RFI and CFI indices above 0.90.

### Goodness of fit: Ethical leadership scale

The inspection of the fit indices indicated that the measurement model of the LES fell within a reasonable fit (RMSEA = 0.0776). The standardised RMR value of 0.053 is slightly above the cut-off value of 0.05, which is indicative of a good fit. The GFI failed to exceed the 0.90 level required for a good fit (Diamantopoulos & Siguaw, 2000). All incremental fit indices (NFI, NNFI, RFI and CFI) exceeded the critical value of 0.95 and thus demonstrated a good fit (Hooper et al., 2008). The model, therefore, indicated a good comparative fit relative to the independence model.

### Goodness-of-fit indices for the structural model

The overall measurement model reasonably fits the data (RMSEA = 0.0614; standardised RMR = 0.0332; NFI = 0.97). A closer look at all the fit indices showed that the structural model fit the data well. The results are presented in Table 3. Root mean square error of approximation (0.0614) for the structural model indicated a reasonable fit. A standardised RMR value of 0.0332 is indicative of a good fit. The *p*-value for the test of close fit (0.194) indicates that the null hypothesis of close fit (Hypothesis 1) cannot be rejected; therefore, the structural model shows a close fit. The GFI value of 0.96 is above the minimum cut-off of 0.90. Regarding the fit indices, NFI, NNFI, RFI and CFI for the structural model were good. The gamma matrix is shown in Table 4.

### Ethical considerations

Ethical clearance to conduct this study was obtained from the Humanities and Social Science Research Ethics Committee of the University of the Western Cape (No. HS18/8/9). Informed consent was obtained before the commencement of the study. In this regard, participants were asked to acknowledge the terms outlined in the questionnaire by signing a consent form. The participants were guaranteed confidentiality and anonymity, with no names disclosed during or after the study.

## Discussion

The purpose of the current study was to design and conduct an analysis of the relationship between ethical leadership, ethical climate and work engagement. The specific objectives were to validate a theoretical model explaining the structural relationships between these variables, test the model's fit with data and evaluate the significance of the hypothesised paths in the model. The potential contribution of this study pertains to the role of ethical leadership in influencing employee engagement in the workplace.

With regard to the model fit, the RMSEA, GFI and standard root mean residual (SRMR) indices indicate that both the measurement and structural models produced a reasonable fit. The results imply that the items measured the latent

**TABLE 4:** The gamma and beta matrix of path coefficients for the structural model.

Latent variable	Ethical climate	Work engagement
Ethical leadership	<b>0.768</b> (0.074) 10.324*	<b>0.191</b> (0.111) 1.724*
Work engagement	<b>0.449</b> (0.115) 3.921*	- - -

Note: Completely standardised path coefficients in bold; standard error estimates in brackets; *t*-values  $\geq |1.96|$  indicate significant parameter estimates.

\*.  $p < 0.05$ .

variables as postulated, and supported the theoretical model underlying the proposed relationships between the latent variables. It was postulated that ethical leadership and work engagement have a significant positive relationship. The proposed relationship was supported ( $t = 1.724$ ;  $p < 0.05$ ), and therefore the null hypothesis was rejected ( $H_{02}: \gamma_{21} = 0$ ) (see Table 3). To assess the *t*-values, a cut-off value of 1.645 was used, as all the hypotheses were one-tailed (Tabachnick & Fidel, 2013). This result was consistent with that reported by Asif et al. (2019), Adnan et al. (2020) and Özsungur (2020) who found significant positive relationship between ethical leadership and work engagement. They documented that when employees perceive their leaders to be ethical, they are more likely to view their work as meaningful and purposeful.

As hypothesised, a positive relationship was found between ethical leadership and ethical climate. These results were consistent with those reported by Al Halbusi et al. (2021), Kuenzi et al. (2020), Naeem et al. (2020) and O'Keefe et al. (2020). These researchers agree that the existence of ethical leadership is essential for the development of an ethical climate. Ethical leaders model their followers to behave within the confines of ethical norms and processes and in ways that demonstrate ethical consciousness, which can create a positive ethical climate.

Ethical climate was found to have a positive effect on work engagement. These results confirm the findings of Bai et al. (2019), Ghani et al. (2017) and Mitonga-Monga (2018) who reported that organisations that nurture positive ethical climates have employees who are highly engaged. This is possible when favourable, transparent policies and procedures are provided within the workplace. The results of the current study suggest that when organisations nurture ethical leaders, they create a conducive environment for employee work engagement.

### Limitations and suggestions for future research

The study explored the connections among work engagement, ethical leadership and ethical climate, yielding valuable insights. Nevertheless, it faced limitations that should be acknowledged in future research endeavours. This study utilised an ex post facto correlational research design, employing convenience sampling. The sample specifically focused on the security sector within three cities in Zimbabwe. These factors affect how broadly the findings can be applied or generalised. Data collected at a single point in time pose a

threat to internal validity, as they hinder making direct causal inferences. Longitudinal designs are superior and effective in determining causality.

An additional constraint was the removal of poor items from the scale measuring work engagement, ethical leadership and ethical climate. The deletion of items has the potential to compromise the construct validity of these scales. Employing self-report measures containing closed-ended questions raises uncertainty about whether the outcomes accurately represent the participants' thoughts. However, it remains uncertain if the criterion scores have been influenced or contaminated. Another threat came from the sensitivity of the constructs, such as ethical leadership, which is susceptible to social desirability bias. Participants were tasked with rating their supervisors, potentially leading to responses aimed at portraying a favourable impression to gain acceptance and approval.

It is essential to highlight that the measurement scales employed in this study lack extensive validation specifically in the context of Zimbabwe. Subsequent research endeavours should aim to verify the psychometric properties of these instruments through validation studies. Moreover, achieving a good fit in a structural equation model does not imply causality. The causal relationships between latent variables and path coefficients do not alone offer enough evidence to confirm the validation of causal hypotheses.

### Managerial implications

The current study reported significant positive relationships between ethical leadership and work engagement, ethical climate and work engagement, and ethical leadership and ethical climate. Based on these results, management in organisations should work towards increasing the work engagement of employees by nurturing ethical leadership. Ethical leaders play a significant role in creating a positive ethical climate that significantly influences employees' level of vigour, dedication and absorption. The findings imply that organisations need to impart the ethical values in their employees in order to promote the work engagement needed for positive important outcomes that include job attitudes and job performance as these have been found to correlate with work engagement in a number of studies.

### Conclusions

Ethical leadership sets up policies; develops practices, values and procedures that stimulate the perception of an ethical climate; and is more likely to enforce policies and practices that align with these values. They create a culture that supports ethical behaviour, promotes fairness and equal treatment of employees, gives them the autonomy to make crucial decisions, constantly communicates with their followers, expresses care, and is considerate when it concerns employees' needs. This study has shown that developing ethical leadership and nurturing positive ethical climates

have important implications for interventions that can be used to foster employee work engagement.

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### Competing interests

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### Authors' contributions

N.G. (University of Western Cape) was the project leader responsible for the data collection and article write-up; the project is based on his PhD thesis. B.M. was responsible for the article write-up and statistical analyses.

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### Data availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

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