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The transformational leadership predictors of organisational citizenship behaviour

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Orientation: Despite increased interest in the human resource aspect in organisations, managers still find it challenging to manage organisational citizenship behaviour (OCB) of employees to enhance organisational success, performance and effectiveness. To improve OCB, one needs to examine how leadership styles and the organisational climate influence employees' behaviour, as these factors are pertinent in shaping employees' motivation and attitudes, which in turn enhance OCB.

Research purpose: The study aims to examine the influence of transformational leadership and organisational climate on OCBs of employees.

Motivation for the study: Within academic institutions, people are a critical driver of success, shaping how effectively and efficiently the organisation functions. This makes it important to study discretionary behaviours, such as OCB, which have been shown to enhance overall organisational performance.

Research approach/design and method: This study used a quantitative approach and surveyed 220 support staff members in a University in the Western Cape Province. Data for the study were gathered from an online survey of Google Forms questionnaires and analysed with a structural equation model to investigate the relationships among the variables of transformational leadership and organisational climate and OCB.

Main findings: The study found that both transformational leadership and organisational climate had positive and significant effects on OCB.

Practical/managerial implications: The likelihood of employees engaging in OCB increases when organisational leaders embrace transformational leadership and cultivate a supportive, positive workplace climate.

Contribution/value-add: This study elevates the existing knowledge by adding knowledge on organisational climate, organisational citizenship behaviour and transformational leadership.

Keywords: organisational climate; transformational leadership; organisational citizenship behaviour; support staff; university; workplace behaviours; leadership; Western Cape.

Introduction

Since 2020, South Africa's higher-education sector has been under increased strain from overlapping challenges of transformation, equity and capacity (Branson et al., 2023). Recent data from Census 2022 show that the proportion of individuals aged 20 years and older who have completed secondary schooling rose to 37.6%, up from much lower levels in prior decades, while post-school education attainment among this group reached 12.2% (South African Government News Agency, 2023). At the same time, public universities faced a marked drop in student retention during 2020, especially among third to fifth year undergraduates, with dropout rates increasing significantly in historically disadvantaged institutions (Branson & Whitelaw, 2023). These trends underscore how non-teaching staff's behaviours, including voluntary, extra-role behaviours not formally rewarded, may be crucial for maintaining organisational effectiveness in higher education.

According to Ndoja and Malekar (2020), organisational citizenship behaviour (OCB) refers to employees' voluntary actions that go above and beyond the requirements of their jobs and are not immediately compensated.

These behaviours, such as helping others or being initiative, improve both the performance of employees and organisations (Fan et al., 2023; Vazquez-Rodriguez et al., 2020). Because OCB

Note: Additional supporting information may be found in the online version of this article as Online Appendix 1.

supports organisational adaptability and service quality, it has become the key construct in understanding the contribution of staff to institutional goals other than their formal roles.

Research proves that transformational leadership is effective in terms of thinking, attitude, motivation and commitment of employees (Pahi et al., 2022; Tafesse & Mohammedhussen, 2020). Transformational leaders not only inspire and enhance the normative and affective commitment of their employees but also foster the attainment of the organisation's vision (Gavya & Subashini, 2024). Such leadership behaviours are of particular relevance in the South African HE setting, where change and constraints of resources necessitate leaders who can relate to staff at a deeper level, that is, the values of the staff.

Additionally, research has shown a positive correlation between an organisation's OCB and its climate (Hariharasudhan et al., 2020; Okeke et al., 2022). Supervisory support, a factor conceptually connected to the individualised consideration aspect of transformational leadership, encourages workers to go above and beyond their job requirements in a supportive environment. According to the study by Davis et al. (2022), OCB is somewhat improved when leaders offer such individualised attention and support. Few studies, however, have looked at the combined effects of organisational climate and transformational leadership on OCB, demonstrating the knowledge gap that this study seeks to fill.

This study, therefore, investigates how organisational climate and transformational leadership together shape OCB among non-teaching university staff in South Africa. By integrating these constructs, the research contributes to understanding how leadership behaviours and workplace environments interact to promote voluntary, performance-enhancing actions. The findings can inform management strategies aimed at fostering a climate where staff willingly engage in behaviours that advance institutional objectives.

Research purpose and objectives

This study's theoretical justification lies in testing the generalisability of organisational climate and transformational leadership on OCB in enhancing work behaviours among university support staff. It endeavoured to analyse the influence of transformational leaders' approaches on organisational climate, with augmenting impacts on OCB-oriented aspects of non-academic employees at a university in South Africa's Western Cape province (Dafe, 2022). Subsequently, the specific objectives of this study are:

- **Objective 1:** To determine the influence of transformational leadership on OCB.
- **Objective 2:** To determine the influence of organisational climate on OCB.

Literature review

Transformational leadership

Transformational leadership is increasingly recognised as a key management style in contemporary organisations, associated with numerous favourable outcomes, including higher employee engagement and retention, as well as reduced burnout and social loafing (Khan et al., 2020b; Lai et al., 2020; Tian et al., 2020). It involves inspiring followers through vision and action to prioritise organisational goals (Alessa, 2021). According to Meng (2022), such leaders articulate a strategic vision that motivates learning. Similarly, Islam et al. (2025) and Ibrahim et al. (2022) highlight that transformational leaders enhance an organisation's human capital.

Marie (2023) explains this leadership approach as having four primary elements:

- Exemplary (idealised) influence is concerned with leaders acting as role models, providing the confidence and trust to follow by strategic and symbolic actions by leaders (Rafique et al., 2022).
- Cognitive stimulation is concerned with driving innovation by encouraging team members to think critically and offer creative solutions (Huang et al., 2022; Khan et al., 2020b; Kioko et al., 2024).
- Individualised consideration focuses on mentoring, personal needs, and development of employee ownership along with open communication among workers at all levels (Rafique et al., 2022; Tang et al., 2024).
- Inspirational motivation consists of establishing a vision that is powerful and provides an example by demonstrating high standards of performance that energise employees to work towards collective goals (Huang et al., 2022; Kioko et al., 2024; Vijian & Wahab, 2020).

Organisational climate

According to Rožman and Štrukelj (2020) and Alshaabani et al. (2020), organisational climate represents employees' shared understanding of how their organisation operates, including its procedures and everyday work setting. It means how individuals collectively experience fairness, support, communication, innovation, autonomy and recognition within the organisation. Scholars have identified several dimensions of organisational climate, including leadership and supervisory support, prevalent cultural dynamics, reward systems, communication processes, innovation and workgroup cohesion (Belay, 2023; Mutonyi et al., 2022; Nilasari et al., 2023).

These factors are very important because they help determine how employees are motivated, engaged and whether or not they are willing to exceed formal job requirements. For the present study, the focus was on certain dimensions from the Organisational Climate Questionnaire (OCQ) suggested by Litwin and Stringer (1968) (namely autonomy, involvement and supervisory support):

- Autonomy reflects freedom for leaders and teams to act creatively.
- Involvement captures the degree to which employees are empowered to participate in decisions.
- Supervisory support refers to guidance and encouragement from supervisors, which enhance their performance and motivation (Akhtar, 2022; Astawa et al., 2023). It is viewed as more immediate and impactful than general organisational support.

These aspects were selected because they closely align with the conditions under which OCBs are most likely to emerge. Thus, the general objective of the study was to assess the effects of the approaches taken by transformational leaders and the climate in their organisation on the OCB of the support staff in the university.

Organisational citizenship behaviour

The term OCB refers to those voluntary actions that are undertaken without any formal compensation and yet help an organisation to work (Fan et al., 2023). Such behaviours are all above and beyond the formal job requirements and differ from one individual to another (Tata & Joy, 2023). Organisational citizenship behaviour helps to foster organisational productivity, create a working environment, ensure job satisfaction and strengthen employee engagement and commitment (Davis et al., 2022; Taye & Gebremeskel, 2023). It also reduces the turnover costs, leads to enhanced organisational reputation and makes the firm more attractive to top talent (Dewani & Swatantra, 2024).

Research has consistently found associations between OCB and increased performance, satisfaction and retention (Khan et al., 2020b). Encouraging the employees to go beyond their official roles allows for the coordination of teams and builds organisational stability and efficiency (Taye & Gebremeskel, 2023).

The OCB focused in this study comprises five important dimensions (Dewani & Swatantra, 2024):

- Altruism: Helping others voluntarily.
- Courtesy: Preventing work-related conflicts (Taye & Gebremeskel, 2023).
- Conscientiousness: Going above minimum performance standards.
- Sportsmanship: Not giving up easily in the face of challenges; instead, but meeting such challenges with a positive attitude.
- Civic virtue: Responsible participation in the organisational affairs and showing loyalty (Khan et al., 2020a).

Scholars also report other dimensions that represent changing workplace dynamics. These include voice behaviour, which entails providing proactive, constructive suggestions (Botha & Steyn, 2022) and organisational loyalty, which involves engaging in activities which benefit the organisation's interests and vision (Azzahra et al., 2024). Other OCB components are self-development, voluntary seeking of skills for the benefit of the organisation and taking charge or initiative, which means anticipating problems and initiating the change (Da Silva et al., 2024).

The present study focused on the five traditional dimensions (Dewani & Swatantra, 2024) because they remain the most validated and widely applied across diverse sectors and directly align with the university support-staff context, ensuring comparability with established OCB research and reliable measurement using existing instruments. Other OCB components include self-development, voluntary seeking of skills for the benefit of the organisation, and taking charge or initiative, which refers to anticipating problems and initiating change (Da Silva et al., 2024). Additionally, the researcher focused on the five traditional OCB dimensions due to the ease of access to well-validated and reliable established scales for measuring them, which reduced the risk of measurement errors.

Empirical literature

Despite the existence of literature indicating the negative correlation between employees' OCB and the transformational leadership approach (Qurtubi, 2022), the majority of recent studies confirm a positive relationship (Davis et al., 2022; Han et al., 2023; Pedregosa et al., 2025; Triningsih et al., 2023; Udin, 2023). While Udin (2023) found the relationship significant only when mediated by knowledge-oriented work passion, other scholars, such as Triningsih et al. (2023) and Pedregosa et al. (2025), emphasise its direct influence. Davis et al. (2022) linked the leadership's tenets to improved OCB among teachers, while Al-Mamary (2020) and Han et al. (2023) found the relationship strengthened when mediated by organisational commitment and public service motivation.

Similarly, research does support a strong correlation between organisational climate and OCB (Prabowo, 2020; Tata & Joy, 2023). Organisational climate, or the shared perceptions by employees of norms in an organisation, affects motivation and behaviour (Kao et al., 2023). Positive climates lead to engagement, and the behaviour has an effect on discretionary behaviour (Tata & Joy, 2023). Research shows that this relationship is frequently mediated by factors such as job satisfaction (Kharismasyah et al., 2020) and work engagement (Sofwati & Claudia, 2023). Research findings have consistently proved that it is the combination of supportive environments and leadership styles that play an important role in enhancing OCB (Almaqableha & Omarb, 2024; Ismail et al., 2024).

Building on the empirical literature, this study is based on two hypotheses that align with the study's objectives. Objective 1 in this study is focused on identifying how transformational leadership influences OCB. The subsequent true and null hypotheses are:

H1: Transformational leadership has a positive influence on organisational citizenship behaviour.

$H1_0$: Transformational leadership has a negative influence on organisational citizenship behaviour.

Objective 2 in this study focuses on revealing the organisational climate's influence on OCB. The corresponding true and null hypotheses that are built from the empirical literature are:

H2: Organisational climate positively influences organisational citizenship behaviour.

$H2_0$: Organisational climate negatively influences organisational citizenship behaviour.

The conceptual model of this study displays the inter-relationship between the independent variables (organisational climate and transformational leadership) and dependent variable, orgainsatinal citizenship behaviour (see Figure 1).

Research design

A positivist paradigm guided the study, emphasising objectively quantifiable data suitable for rigorous statistical analyses (Junjie & Yingxin, 2022). Also, the study was conducted with minimal interaction with participants because a positivist paradigm is based only on external and objective facts (Wilson, 2010). Quantitative data were collected to address the study's research questions, given the nature of the research.

Research method

Research participants

The study focused on 1123 support staff members employed at a university in the Western Cape Province. Guided by recommended minimum sampling requirements, 220 participants were targeted using the Raosoft sample size calculator (95% confidence level, 50% response distribution) (Dafe, 2022). Because interest varied across departments, convenience sampling was adopted. Online questionnaires were distributed through Google Forms, and 220 were completed, yielding an overall population response rate of about 19.6%. The completed questionnaires produced enough information for their use in a quantitative analysis, which involved the use of structural equation modelling (SEM) in analysing the correlation between institutional climate and OCB or transformational management. Although the researcher attained their targeted sample size, the study's findings cannot be generalised to other support staff in other universities. This also raises awareness of the need to target larger samples of support staff to enhance the generalizability of the findings of future research (Dafe, 2022)

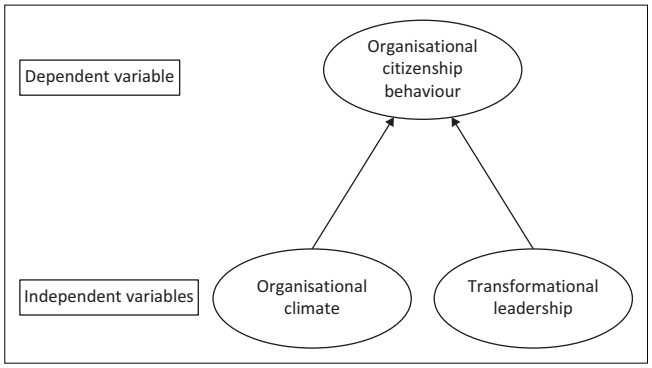


FIGURE 1: Conceptual model proposed in this study.

Measuring instruments

A standardised questionnaire with both closed-ended and open-ended questions was used in the quantitative investigation (Dafe, 2022). The Multifactor Leadership Questionnaire (MLQ 5X) was used to assess transformational leadership, while the OCQ, developed by Litwin and Stringer (1968), was utilised to evaluate organisational climate. Organisational citizenship behaviour was measured using the 'Organisational Citizenship Behaviour Scale' (OCBS). With 24 components, the OCBS developed by Podsakoff et al. (1990) sought to assess a person's civic nature, sportsmanship, conscientiousness, altruism and civility. It was scored on a five-point scale. Each measuring instrument consisted of fixed-format and self-reporting items. The closed-ended questions in the measuring instruments were completed voluntarily at the participant's pace and were deemed suitable for obtaining honest responses on sensitive topics. To capture the four facets of transformational leadership, the MLQ 5X employed 20 statements evaluated on a 5-point Likert-type response format. The four scales are intellectual stimulation, individual consideration, inspired motivation and idealised influence. The OCQ scale (with 27 items categorised under three dimensions) had initially been developed Litwin and Stringer (1968). Its dimensions were modified to align with this research, including measuring the items using a 5-point Likert scale. The three dimensions include: (1) involvement, (2) autonomy, and (3) supervisory support.

Research procedure

The study employed established, previously validated questionnaires; therefore, no pilot testing was required.

Because these instruments had already demonstrated sound psychometric properties, the focus was on confirming their internal consistency within the present context rather than revalidating the scales. Reliability of each construct (transformational leadership, organisational climate and OCB) was assessed by using Cronbach's alpha coefficients and showed satisfactory levels on all the measures (Dafe, 2022). This procedure ensured that the items would prove dependable for the targeted population of university support staff. After reliability confirmation, the final survey was distributed to selected participants electronically to collect data for the subsequent quantitative and SEM analyses.

Statistical analysis

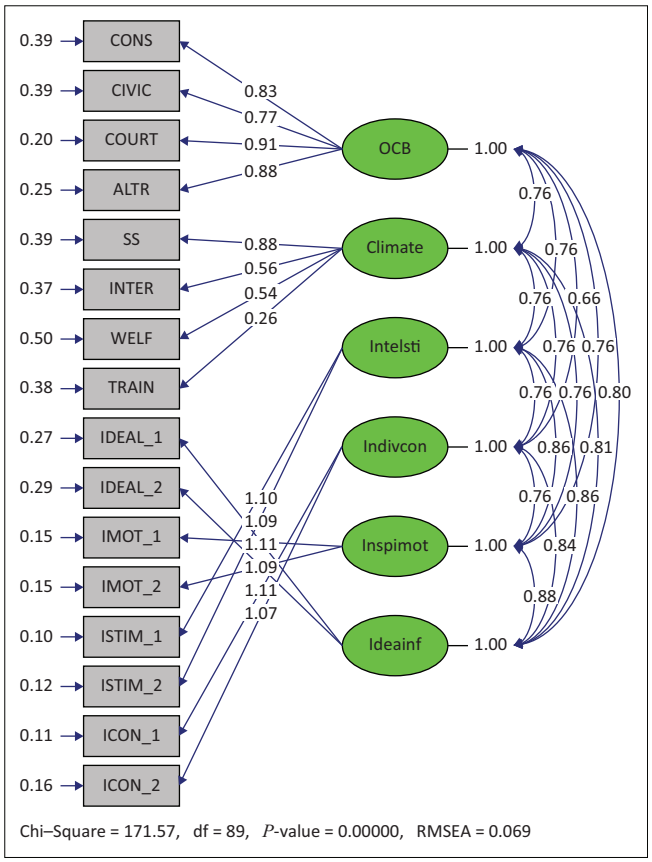
The quantitative-based analysis was carried out using SPSS 27. The validity and reliability of the findings were evaluated using exploratory factor analysis (EFA) and coefficient alpha. Structural equation modelling was used to analyse the data (Dafe, 2022), which makes it possible to use confirmatory factor analysis to assess the scales' measurement qualities. Using the characteristics of LISREL 8.80, a confirmatory factor analysis was performed on the

measurement model to evaluate goodness-of-fit (Dafe, 2022). The measurement model for this investigation is shown in Figure 2, and the structural model is shown in Figure 3. The Robust Maximum Likelihood technique was used to obtain estimates (Dafe, 2022).

Ethical considerations

Ethical clearance to conduct this study was obtained from the Human and Social Sciences Ethics Committee of the University of the Western Cape (No. HS20/5/9), before undertaking fieldwork and data gathering activities (Dafe, 2022). As the researcher could not directly approach the institutional email IDs, an authorised gatekeeper distributed the link to the survey on behalf of the researcher. This protected privacy and enabled the staff to receive the invitation. Every email included an information and consent letter stating the purpose of the study, the voluntary aspect of participation and participants' right to withdraw from the study without any associated penalties (Dafe, 2022).

Even though the gatekeeper in this study used a staff email list to distribute the invitations, the researcher did not access or store any participant names or participant contact information, ensuring the confidentiality of participants (Dafe, 2022). It should be noted, however, that as names are collected, no real anonymity could have been ensured. The work of the gatekeeper was over after the invitation was sent,



Source: Dafe, P.U. (2022). *The influence of transformational leadership and organisational citizenship behaviour among support staff at a selected University in the Western Cape Province*. Master's thesis, University of the Western Cape.

FIGURE 2: Measurement model.

and survey answers were gathered via a separate online platform with no identifying fields. All information was stored on an external hard drive that was password-protected, stored in a locked cabinet, and only accessed by the researcher, solely, to enhance participants' confidentiality through preventing unauthorised access to the study's data. The researcher enhanced the study's transparency by detailing and adhering to all the procedures that were utilised in the study. In addition, the researcher protected the study's participants from psychological harm by refraining from questions that could trigger their anxiety.

Results

Presentation of results

By evaluating the effects of transformational leadership and organisational climate on OCB among support staff in university work contexts, the study explores the predictors of OCB (Dafe, 2022). Factor analysis (item and dimension analysis) was performed using SPSS Version 27, and SEM was performed using LISREL 8.8 in order to evaluate the measurement model, goodness of fit and hypothesis test.

Item analysis

Item analysis was conducted to provide information about scale reliability and inter-item correlations.

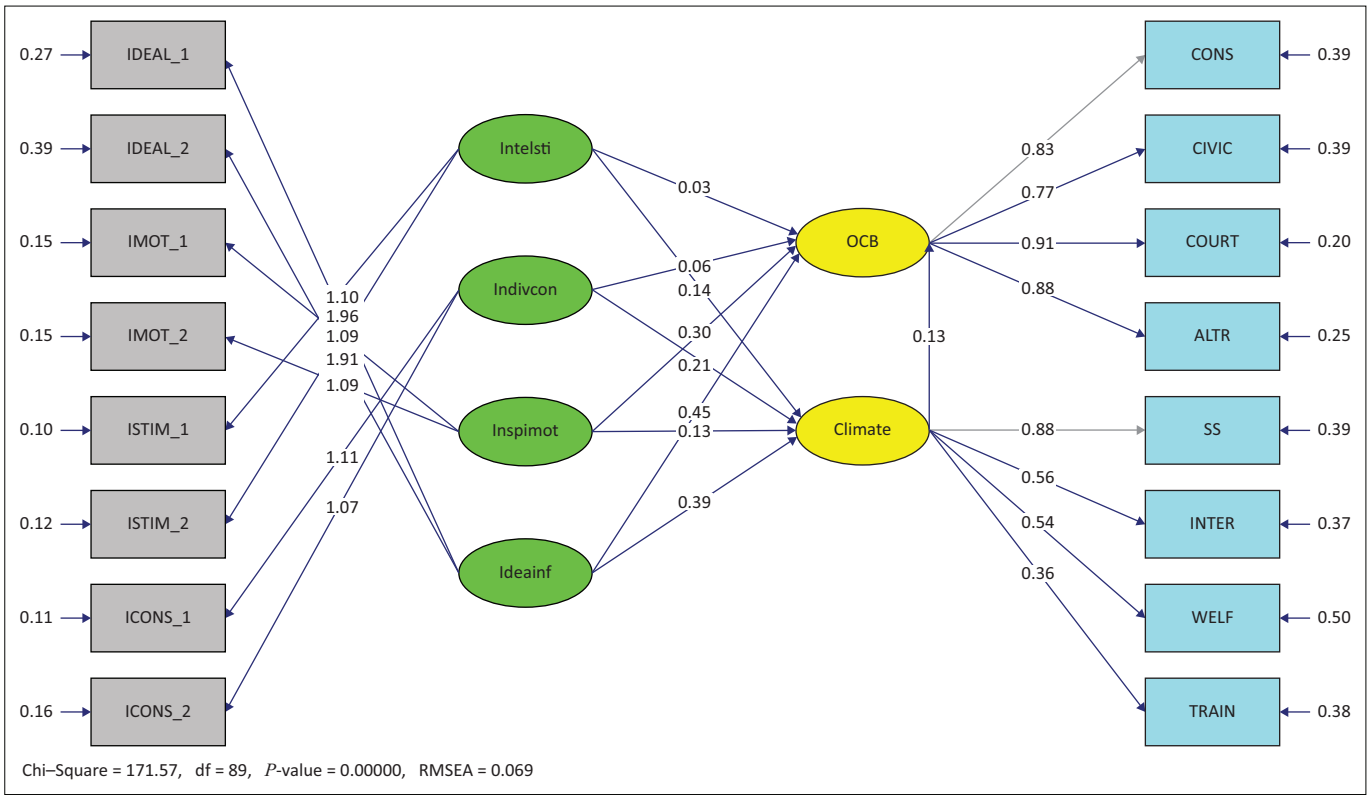
Item analysis for transformational leadership

The transformational leadership variable has 20 items that measure dimensions such as idealised influence, intellectual stimulation, inspirational motivation and individualised consideration (Dafe, 2022).

Item analysis for the idealised influence subscale: As shown in Table 1, the idealised influence subscale contains eight items and measures internal consistency, which was found to be 0.958. This item analysis outcome is greater than 0.9, which indicates that the idealised influence subscale items had an excellent level of internal consistency and reliability. Furthermore, the value of the inter-item correlation matrix shows that the values vary between 0.638 and 0.877, which represent a strong positive relationship among the items of the subscale (see Online Appendix 1) (Dafe, 2022).

Item analysis for the inspirational motivation subscale: As can be seen from Table 1, the inspirational motivation subscale, which consists of four items, showed an internal consistency of 0.955 (Dafe, 2022). This value is greater than 0.9, which indicates excellent internal consistency and reliability (Schrepp, 2020). Likewise, the matrix of inter-item correlation found 0.822 and 0.877, thus showing a strong positive relationship among the subscale items (see Online Appendix 1) (Dafe, 2022).

Item analysis for the intellectual stimulation subscale: Table 1 indicates that the intellectual stimulation subscale, which had four items, scored 0.956 on the internal



Source: Dafe, P.U. (2022). *The influence of transformational leadership and organisational citizenship behaviour among support staff at a selected University in the Western Cape Province*. Master's thesis, University of the Western Cape.

FIGURE 3: Structural model.

TABLE 1: Cronbach's alpha coefficients for the transformational leadership subscales.

Variables	Reliability statistics		
	Cronbach's alpha	Cronbach's alpha based on standardised items	Number of items
Idealised influence	0.958	0.958	8
Inspirational motivation	0.955	0.956	4
Individualised consideration	0.936	0.956	4
Intellectual stimulation	0.956	0.956	4

Source: Dafe, P.U. (2022). *The influence of transformational leadership and organisational citizenship behaviour among support staff at a selected University in the Western Cape Province.* Master's thesis, University of the Western Cape.

consistency level (Dafe, 2022). This value is higher than 0.9, which is an excellent level of internal consistency and reliability (Schrepp, 2020). In addition, the results of the inter-item correlation matrix showed that the correlation is strong and ranges from 0.819 to 0.892, indicating a positive and strong correlation among the subscale items (see Online Appendix 1) (Dafe, 2022).

Item analysis for the individualised consideration subscale: Table 1 shows that the individual consideration subscale's internal consistency value was 0.936 from four items. Like other subscales, this is greater than 0.9, which shows an excellent level of internal consistency and reliability (Schrepp, 2020). In addition, the values in the inter-item correlation matrix are between 0.822 and 0.850, which indicates that the items of each subscale have a strong positive relationship with each other (Dafe, 2022).

TABLE 2: Cronbach's alpha coefficients for the organisational climate subscales.

Variables	Reliability statistics		
	Cronbach's alpha	Cronbach's alpha based on standardised items	Number of items
Involvement	0.820	0.823	6
Autonomy	0.671	0.671	4
Supervisory support	0.947	0.948	5

Source: Dafe, P.U. (2022). *The influence of transformational leadership and organisational citizenship behaviour among support staff at a selected University in the Western Cape Province.* Master's thesis, University of the Western Cape.

Item analysis for organisational climate

Organisational climate variable is made up of 15 items. The measuring subscales include: involvement, autonomy and supervisory support.

Item analysis for the involvement subscale: Table 2 indicates that the involvement subscale, which consists of six items, has an internal consistency of 0.820 (Dafe, 2022). The involvement subscale was identified to have great internal consistency and reliability because of having a 0.820 item analysis outcome. Additionally, the result of correlation among the items showed a coefficient value ranging from 0.203 to 0.827 (see Online Appendix 1). These indicate that the correlation among the involvement subscale's items was low, moderate and positive.

Item analysis for autonomy subscale: As shown in Table 2, the autonomy subscale contained four items with an internal consistency value of 0.67, which shows low internal consistency and reliability. Furthermore, the correlation matrix between items showed that the correlation ranged from 0.120

to 0.827, which reveals low, moderate and strong positive correlations among the items of the subscales (Dafe, 2022).

Item analysis for the supervisory support subscale: Table 2 indicates that the subscale, supervisory support, which consists of five items, had an internal consistency of 0.947 (Dafe, 2022). Such a value of internal consistency reflects excellent internal consistency and reliability. Moreover, the correlation matrix between the items showed that the correlation value between the subscale items varied between 0.747 and 0.826, indicating a strong relationship between the subscale items (see Online Appendix 1) (Dafe, 2022).

Item analysis for organisational citizenship behaviour

Organisational citizenship behaviour has 24 items categorised into the following subscales: conscientiousness, sportsmanship, civic virtue, courtesy and altruism.

Item analysis for the conscientiousness subscale

Table 3 indicates that the conscientiousness subscale, which consists of five items, shows an internal consistency of 0.940 (Dafe, 2022). This indicates there is an excellent internal consistency and reliability scale. Additionally, it examines the inter-item correlation matrix, which indicates the coefficients of 0.716 to 0.820, which shows quite a high positive relationship between the subscale items (see Online Appendix 1) (Dafe, 2022).

Item analysis for the sportsmanship subscale: As shown in Table 3, the internal consistency value of the sportsmanship subscale was 0.934, and it was based on five items. Such an internal consistency value reflects that the scale has a great internal consistency and remains a reliable scale. Furthermore, the inter-item correlation matrix displays a range between 0.650 and 0.808, which generally represents moderate to a strong positive correlation among the subscale items (see Online Appendix 1) (Dafe, 2022).

Item analysis for civic virtue subscale: According to Table 3, the internal consistency value of 0.922 is taken from five items; the civic virtue subscale indicates that the reliability level of the civic virtue subscale is good, as the scale presented in our research has an excellent internal consistency. In addition, the result of the inter-item correlation matrix reveals the range of 0.617 to 0.807 in the items of the subscales to signify moderate to strong relations among the subscale items (see Online Appendix 1) (Dafe, 2022).

TABLE 3: Cronbach's alpha coefficients for the organisational citizenship behaviour subscales.

Variables	Reliability statistics		
	Cronbach's alpha	Cronbach's alpha based on standardised items	Number of items
Conscientiousness	0.940	0.940	5
Sportmanship	0.934	0.935	5
Civic virtue	0.922	0.922	5
Courtesy	0.952	0.953	4
Altruism	0.955	0.955	5

Source: Dafe, P.U. (2022). *The influence of transformational leadership and organisational citizenship behaviour among support staff at a selected University in the Western Cape Province.* Master's thesis, University of the Western Cape.

Item analysis for courtesy subscale: As shown in Table 3, the courtesy subscale had four items and an internal consistency value of 0.952, which indicates excellent internal consistency and a reliable scale. Moreover, the inter-item correlation coefficient of the subscale items ranges from 0.768 to 0.866, which shows a strong relationship between the subscale items (see Online Appendix 1) (Dafe, 2022).

Item analysis for the altruism subscale: Based on Table 3, the internal consistency value of the altruism subscale was 0.955 using five items. This value indicates that internal consistency is excellent and reliable. Further, the inter-item correlation matrix coefficient of the subscale items falls between 0.770 and 0.853, indicating a significant relationship between the subscale items (see Online Appendix 1) (Dafe, 2022).

Dimension analysis

The statistical findings from the EFA showed that all transformational leadership subscales had acceptable Kaiser-Meyer-Olkin (KMO) values (above 0.6), hence supporting factor analysis. The KMOs values for the transformational leadership subscales were as follows: idealised influence (0.92), inspirational motivation (0.875), individualised consideration (0.859), and intellectual stimulation (0.852) (Table 4) (Dafe, 2022).

Similarly, all the organisational climate constructs' subscales were also found to have valid KMO values: supervisory

TABLE 4: Exploratory factor analysis of transformational leadership subscales.

Variables	No. of Items	Items	Factor
Idealised influence	8	IIA1	0.871
		IIA2	0.866
		IIA3	0.857
		IIA4	0.894
		IIA5	0.839
		IIA6	0.846
		IIA7	0.870
		IIA8	0.838
Inspirational motivation	4	IM9	0.892
		IM10	0.928
		IM11	0.924
		IM12	0.928
Individualised consideration	4	IC17	0.895
		IS18	0.927
		IS19	0.893
		IS10	0.834
Intellectual stimulation	4	IS13	0.888
		IS14	0.920
		IS15	0.941
		IS16	0.927

Source: Dafe, P.U. (2022). *The influence of transformational leadership and organisational citizenship behaviour among support staff at a selected University in the Western Cape Province.* Master's thesis, University of the Western Cape.

TABLE 5: Exploratory factor analysis of the organisational climate subscales.

Variables	No. of Items	Items	Factor
Involvement subscale	6	INVOL1	0.443
		INVOL2	0.715
		INVOL3	0.459
		INVOL4	0.834
		INVOL5	0.816
		INVOL6	0.855
Supervisory support subscale	5	SS11	0.844
		SS12	0.893
		SS13	0.890
		SS14	0.893
		SS15	0.906

Source: Dafe, P.U. (2022). *The influence of transformational leadership and organisational citizenship behaviour among support staff at a selected University in the Western Cape Province.* Master's thesis, University of the Western Cape.

TABLE 6: Exploratory factor analysis of the organisational citizenship behaviour subscales.

Variables	No. of Items	Items	Factor
Conscientiousness subscale	5	CONS1	0.870
		CONS2	0.825
		CONS3	0.907
		CONS4	0.856
		CONS5	0.898
Sportsmanship subscale	5	IC17	0.895
		IS18	0.927
		IS19	0.893
		IS10	0.834
Civic virtue subscale	5	CV11	0.830
		CV12	0.802
		CV13	0.903
		CV14	0.865
		CV15	0.795
Courtesy subscale	4	COURT16	0.934
		COURT17	0.888
		COURT18	0.899
		COURT19	0.932
Altruism subscale	5	ALT20	0.878
		ALT21	0.893
		ALT22	0.889
		ALT23	0.913
		ALT24	0.929

Source: Dafe, P.U. (2022). *The influence of transformational leadership and organisational citizenship behaviour among support staff at a selected University in the Western Cape Province.* Master's thesis, University of the Western Cape.

TABLE 7: Goodness of fit statistics for the overall measurement model.

Fit index	Value
Degrees of freedom	89
Satorra-Bentler scaled chi-square	171.566 (P = 0.0)
Chi-square corrected for non-normality	311.158 (P = 0.0)
Root mean square error of approximation (RMSEA)	0.0693
90% confidence interval for RMSEA	(0.0563; 0.0848)
P-value for test of close fit (RMSEA < 0.05)	0.0233
Normed fit index (NFI)	0.978
Non-normed fit index (NNFI)	0.985
Parsimony normed fit index (PNFI)	0.725
Comparative fit index (CFI)	0.989
Incremental fit index (IFI)	0.989
Relative fit index (RFI)	0.970
Critical N (CN)	139.303
Root mean square residual (RMR)	0.0444
Standardised RMR	0.0480
Goodness of fit index (GFI)	0.877
Adjusted goodness of fit index (AGFI)	0.813
Parsimony goodness of fit index (PGFI)	0.574

Source: Dafe, P.U. (2022). *The influence of transformational leadership and organisational citizenship behaviour among support staff at a selected University in the Western Cape Province.* Master's thesis, University of the Western Cape.

support (0.910), integration (0.741), and training had the least (0.663). However, the involvement subscale was also sub-dimensional with two factors below 0.6 (Table 5) (Dafe, 2022).

Moreover, KMO values of all OCB subscales met the threshold value, which resulted in the following values: conscientiousness (0.90), sportsmanship (0.885), civic virtue (0.874), courtesy (0.835) and altruism (0.917) (Table 6) (Dafe, 2022).

Overall measurement model fit

Various indices have been used to determine the model fit shown in Table 7. For example, the root mean square error of approximation (RMSEA) derived from the analysis is 0.0693 (Dafe, 2022). A value of RMSEA of 0.06 is a good fit as it is within the range of 0.05–0.08 (Sathyanarayana & Mohanasundaram, 2024). Furthermore, the root mean squared residual (RMR) and the standardised RMR are 0.044 and 0.048, which indicate a good model fit (Dafe, 2022). The Goodness of Fit Index (GFI) value obtained was 0.877, whereas the Adjusted Goodness of Fit Index (AGFI) value was 0.813 (Dafe, 2022). These values of GFI and AGFI are less than 0.90 and therefore imply good model fit, and hence this is categorised as a reasonable model fit. Furthermore, the Normed Fit Index (NFI), Non-Normed Fit Index (NNFI), Comparative Fit Index (CFI), Incremental Fit Index (IFI) and Relative Fit Index (RFI) values have been computed as 0.978, 0.985, 0.989, 0.989 and 0.970, respectively; values that suggest the model have a reasonable fit and assure the independence-based model considering they exceeded the desired 0.9 value (Dafe, 2022).

TABLE 8: Goodness of fit statistics for the structural model.

Fit index	Value
Degrees of freedom	120
Satorra-Bentler scaled chi-square	321.451 (P = 0.0)
Chi-square corrected for non-normality	2117.495 (P = 0.0)
Root mean square error of approximation (RMSEA)	0.0781
90% confidence interval for RMSEA	(0.0667; 0.0896)
P-value for test of close fit (RMSEA < 0.05)	0.000
Normed fit index (NFI)	0.950
Non-normed fit index (NNFI)	0.967
Parsimony normed fit index (PNFI)	0.800
Comparative fit index (CFI)	0.972
Incremental fit index (IFI)	0.972
Relative fit index (RFI)	0.941
Critical N (CN)	118.130
Root mean square residual (RMR)	0.0834
Standardised RMR	0.0595
Goodness of fit index (GFI)	0.845
Adjusted goodness of fit index (AGFI)	0.796
Parsimony goodness of fit index (PGFI)	0.641

Source: Dafe, P.U. (2022). *The influence of transformational leadership and organisational citizenship behaviour among support staff at a selected University in the Western Cape Province.* Master's thesis, University of the Western Cape.

Goodness of fit for the structural model

Just as with the measurement model, the goodness-of-fit for the structural model is evaluated using a number of different indices. The findings of indices are provided in Table 8. The value of the RMSEA, which is 0.0781, represents a reasonable fit of the structural model. In addition, the RMR and the standardised RMR values are 0.0834 and 0.0595. The values of RMR and standardised RMR are greater than the 0.05 value, which indicates that there exists no closeness of fit in the structural model (Sathyanarayana & Mohanasundaram, 2024). The NFI, NNFI, CFI, IFI and RFI are 0.950, 0.967, 0.972, 0.972 and 0.941, respectively. These values are greater than 0.9, indicating a reasonable fit of the structural model.

Hypothesis test

Parameter estimates are derived in order to conduct a hypothesis test. This includes analysing the structural model

TABLE 9: The Beta matrix.

BETA	OCB	Climate
Train	0.835	0.358
	(0.064)	(0.065)
	-	13.641
Climate	0.913	-
	(0.051)	-
	17.808	-

Source: Dafe, P.U. (2022). *The influence of transformational leadership and organisational citizenship behaviour among support staff at a selected University in the Western Cape Province.* Master's thesis, University of the Western Cape.

OCB, organisational citizenship behaviour

that has the matrices of gamma and beta. Parameters are said to be significant if the *p*-value is lower than 0.05, and the *t*-value is greater than 1.96 (Dafe, 2022). Table 9 shows the output of the Beta matrices.

Objective one: To determine the influence of transformational leadership on organisational citizenship behaviour

H1: Transformational leadership has a positive effect on OCB.

$H1_0$: Transformational leadership has a negative effect on OCB.

Based on Table 9, the *t*-value for the relationship between transformational leadership and OCB is 12.963 with a *p*-value of 0.064 (Dafe, 2022). The *t*-value is greater than 1.96, and so the null hypothesis is rejected, and the alternative hypothesis is accepted. Similarly, the *p*-value of 0.064, being below 0.05, also clears the null hypothesis in favour of the alternative (Dafe, 2022). Therefore, the study concludes that transformational leadership positively influences the OCB of the support staff.

Objective two: To find out the influence of organisational climate on OCB

H2: Organisational climate positively influences organisational citizenship behaviour.

$H2_0$: Organisational climate negatively influences organisational citizenship behaviour.

Based on Table 9, the *t*-value of the relationship between organisational climate and OCB is 17.808, and the *p*-value is 0.051, which Dafe (2022) once reported. The *t*-value is greater than 1.96, which means that the null hypothesis is rejected and the alternative hypothesis is accepted. Likewise, the *p*-value of 0.051 is less than 0.05; hence, the null hypothesis is rejected in favour of the alternative (Dafe, 2022). Thus, the results showed that organisational climate has a positive influence on OCB.

Summary

Most subscales of transformational leadership, organisational climate and OCB demonstrated excellent internal consistency and reliability, except the autonomy scale (Dafe, 2022). Also, the inter-item correlation matrix coefficient indicates that most items had a medium and strong positive relationship. Moreover, regarding dimension analysis, all the subscales (transformational leadership, organisational climate and OCB) had acceptable KMO values above 0.6, thus supporting factor analysis. In relation to the overall measurement model, indices such as RMSEA, RMR, standardised RMR, NFI, NNFI, CFI, IFI and RFI, among others, indicate a reasonable fit. The goodness-of-fit indices similarly indicate that the structural model's outcome was a reasonable fit (Dafe, 2022). Moreover, hypothesis testing for objectives one and two showed that the null hypotheses were rejected in favour of the alternative hypotheses. In both instances, the findings suggest that transformational leadership and organisational climate positively affect OCB (Dafe, 2022).

Discussion

This study's findings provided evidence of significantly positive relationships of transformation-oriented leadership and OCB ($t = 12.963$, $p < 0.05$) and between organisational climate and OCB ($t = 17.808$, $p < 0.05$) (Dafe, 2022). These results support H1 and H2 and reject the corresponding null hypotheses. These findings align with prior studies, which show that transformational leadership enhances OCB, especially when mediated by passion or commitment (Davis et al., 2022; Han et al., 2023; Udin, 2023). Similarly, the relationship between organisational climate and OCB could also be related to other studies that have used SEM and PLS-SEM and found the importance of supportive environments in promoting discretionary behaviour (Prabowo, 2020; Shbail & Shbail, 2020).

Practical implications

The results of this study showed that transformational leadership approaches combined with encouraging organisational climates are pertinent in the improvement of OCB displayed by non-teaching staff (support staff) in universities. These findings indicated that leaders can support the development of OCB by developing supportive working environments and engaging in transformational behaviours (e.g. effective communication, training and creating and conveying clear leadership expectations to subordinates).

Given OCB's value in enhancing creativity, engagement and institutional success, university leaders should incorporate transformational practices into staff development. Promoting trust-based leader-follower relationships may also further increase staff motivation and discretionary effort.

Although autonomy was relatively lower in this study in terms of Cronbach's alpha, it is a conceptually important one, along with supervisory support, welfare and participation, which are recognised in the literature as critical organisational climate drivers of OCB. Supportive environments make employees more confident, which helps them in enhancing their workplace productivity. Organisational leaders should involve support staff in decision-making processes and prioritise their empowerment and well-being. Institutions

can thus enhance their efficacy and OCB through aligning leadership styles and organisational climate with the above principles.

Limitations

This study is not without limitations. Although the close-ended design of survey questions enabled the collection of support staff's views, attitudes and perspectives over a period of time (Dafe, 2022), the approach made it difficult to collect data that can be used to fully explain the factors that influenced participants' experiences and the identified correlations between transformational leadership, OCB, and organisational climate. Another limitation of the research is its restricted generalisability, as the findings cannot be confidently applied to support staff across all South African provinces. This constraint reduced the study's scope because variations in the measured variables may not have been adequately represented. Data collection was also delayed because it was done remotely using Google Forms due to coronavirus disease 2019 (COVID-19) restrictions.

Recommendations

Future investigations should involve a larger sample (greater than 220 in this study) of support staff from universities to ensure their findings better represent the population of interest. Future studies should attempt to gather data from support staff at other universities within the Western Cape as well as South Africa. Sampling participants from multiple institutions would increase the demographic representation of support staff from universities across South Africa. Further studies must also be carried out in accordance with the mixed-methods approach, which will be helpful in extracting more insightful experiences of the participants. The accuracy of the analysis of the study will also be easier if the data collection process of similar studies has instruments like interviews and observation that might be collaboratively used with a questionnaire.

Conclusion

This study analysed how organisational climate, together with transformational leadership, shapes OCB among sampled support staff in a selected higher-education institution. Using data from 122 staff members via the MLQ 5X and OCQ, the results showed significant positive relationships between both predictors and OCB. While the findings are limited to one institution and not generalisable across the province or country, they provide important insights into the facilitators of discretionary workplace behaviour. The study lays a foundation for enhancing OCB through leadership development and a supportive work climate. Future studies should expand to other institutions or regions to explore the consistency of these relationships in broader contexts.

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Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

CRediT authorship contribution

Paul U. Dafe: Conceptualisation, Data curation, Formal analysis, Investigation, Methodology, Visualisation, Writing – original draft, Writing – review & editing. Bright Mahembe: Methodology, Project administration, Supervision. Tolulope V. Balogun: Conceptualisation, Supervision. All authors reviewed the article, contributed to the discussion of results, approved the final version for submission and publication and take responsibility for the integrity of its findings.

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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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