SA Journal of Human Resource Management
ISSN: (Online) 2071-078X, (Print) 1683-7584

Enhancing higher education performance: Transformational, transactional and agile leadership

Authors:
Mahir Samodien[1]
Marieta du Plessis[1]
Carel J. van Vuuren[1]

Affiliations:
[1]Department of Industrial Psychology, Faculty of Economic and Management Sciences, University of the Western Cape, Cape Town, South Africa

Corresponding author:
Mahir Samodien,
mahirsamodien@gmail.com

Dates:
Received: 27 July 2024
Accepted: 06 Nov. 2024
Published: 16 Dec. 2024

How to cite this article:
Samodien, M., Du Plessis, M., & Van Vuuren, C.J. (2024). Enhancing higher education performance: Transformational, transactional and agile leadership. *SA Journal of Human Resource Management/SA Tydskrif vir Menslikehulpbronbestuur*, *22*(0), a2768. https://doi.org/10.4102/sajhrm.v22i0.2768

Copyright:
© 2024. The Authors. Licensee: AOSIS. This work is licensed under the Creative Commons Attribution License.

Read online:
Scan this QR code with your smart phone or mobile device to read online.

Orientation: Leadership styles have a significant influence on institutional performance. Transactional, transformational and agile leadership styles demonstrate positive organisational outcomes.

Research purpose: This study examines how transactional, transformational, and agile leadership styles influence and predict institutional performance within South African higher education. By identifying the most effective leadership approach, the research offers recommendations to enhance leadership strategies in the sector.

Motivation for the study: These leadership styles were selected because of their relevance in navigating the structural, innovative and adaptive needs of higher education institutions. Understanding their impact will help shape more effective leadership interventions.

Research approach/design and method: A quantitative, correlational design was used. The Multifactor Leadership Questionnaire (MLQ), Agile Leadership Questionnaire and Institutional Performance Questionnaire were administered to a convenience sample of 224 staff across five public institutions in South Africa.

Main findings: All three leadership styles positively and significantly influenced institutional performance. Transformational and agile leadership showed the strongest ability to explain the variance in performance, with transformational leadership explaining the most variance.

Practical/managerial implications: Effective leadership is critical for performance in South African higher education. Leadership training should develop transformational and agile leadership behaviours.

Contribution/value-add: The findings highlight the importance of leadership style for institutional performance and the need for tailored leadership developmental programmes in academia.

Keywords: leadership styles; institutional performance; transformational leadership; transactional leadership; agile leadership; higher education; leadership development; VUCA.

Introduction

Orientation

Higher education institutions (HEIs) in South Africa face pressing challenges in maintaining performance (Dwaikat, 2020). The government prioritises redressing past racial injustices, amid expanding enrolments, strained resources and growing responsibilities for academics (Cloete, 2020; Du Plessis, 2020).

The gross HEI enrolment ratio in South Africa was around 25.36% in 2021, essentially unchanged from the previous year. Nevertheless, in 2021, the enrolment ratio increased to the highest value during the period under observation (Cowling, 2024). The rising demand for higher education is reflected in this enrolment's consistent increase. In 2023, Dr Blade Nzimande, Minister of Higher Education, Science, and Innovation, projected that the public university sector would accommodate one million enrolments (SA News, 2023). While this expansion reflects efforts to broaden access to education, it simultaneously highlights a pressing challenge which is balancing growing enrolment with limited financial and infrastructural capacity. The University of the Witwatersrand's Deputy Vice Chancellor, Professor Lynn Morris, emphasised that funding for research is actively decreasing. Furthermore, South Africa has low rates of private sector investment, in contrast to the worldwide trend where corporate capital drives the

research and development (R&D) agenda (Mtshali, 2016). Dr Zikode, a representative from the Auditor-General's office, expressed concerns over the financial strains that universities are under during a recent conference on HEIs. They pointed out that HEIs operating expenses are rising far more quickly than their income. Universities are bound by long- and medium-term contracts with escalation provisions that lead expenses to climb faster than the pace at which tuition may be changed, even when the Minister of Higher Education sets a maximum on student fees. This puts colleges in a situation where they have to discover methods to make more money than they had planned in order to fulfil their contractual responsibilities, which presents a serious and continuous financial problem (Lemmer, 2024).

Furthermore, HEIs are being prompted to consider their own transformation plans by the ever-changing educational landscape that is being created by the rapid advancement of technology. The requirement for academic leaders to possess new competencies was brought about by the pandemic's unpredictability, the rise of distance learning and the ensuing competition from foreign HEIs, and the necessity of operating through social networks and cutting-edge information technology (Ratajczak, 2023). This sector faces intense competition which compels enhancing process efficiencies and service standards (Dwaikat, 2020) which are crucial given performance dictates stakeholder perceptions and university rankings (Komotar, 2020; Tasopoulou & Tsiotras, 2017).

Institutional performance spans across dimensions such as educational quality, service excellence, new offerings, customer centricity and financial viability (Al-Kharusi & Murthy, 2017; Amin et al., 2020; Cardona & Bravo 2012; Mykhailyshyn et al., 2019). Infrastructure, resources, publications and student experience are all critical considerations in the development of new offerings within HEIs. These offerings must be tailored to address the evolving needs of stakeholders. Achieving customer centricity is key, as it involves meeting the expectations of all involved parties. Moreover, maintaining financial stability is crucial for both goal achievement and appealing to stakeholders. Given that students are the primary consumers within HEIs, it is imperative to recognise their centrality in decision-making processes. Additionally, as the learning and teaching methods continue to evolve, it is essential to adapt offerings accordingly to ensure relevance and effectiveness. Ratajczak (2023) highlights that the expectations for university applicants, particularly the younger generations, often called 'digital', are accustomed to obtaining knowledge through means beyond traditional ones, such as attending in-person classes. The instructor is not the sole source of information for this age. Students nowadays study from the Internet and social media, make use of free resources online and use artificial intelligence-based programs such as ChatGPT more frequently (Ratajczak, 2023). This underscores the critical leadership required in HE to adjust and implement cutting-edge tactics that meet students' evolving learning habits and preferences. As McCluskey and Winter (2012) suggest, the integration of digital technologies is reshaping teaching and learning models. The volatile, unpredictable, complex and ambiguous (VUCA) world today requires adaptability, as it is crucial in meeting the shifting demands of HEIs.

As academic institutions strive to adapt, effective leadership is crucial for their prosperity and survival (Mababu & García, 2016). Although incremental changes and other adaptive change management techniques are cost-effective, they might not be sufficient to address complex, systemic problems that call for more extensive, transformative interventions. Instead of improving an organisation's larger structure or culture, incremental adjustments usually concentrate on enhancing certain procedures or activities (Stobierski, 2020). This limitation is important in dynamic industries like higher education, where disruptive factors like technology and competitive pressures pose significant obstacles (Tan, 2023). Additionally, longstanding issues in leadership succession, training and role clarity continue to hinder leadership effectiveness (Kulati, 2000; Seale 2015). Ehlers (2020) further observes that a growing number of HEIs are embracing change management strategies. Nevertheless, these efforts bring about significant challenges for leaders who struggle to formulate and implement a unified approach to digital transformation that is externally visible. This inconsistency can hinder the impact and cohesion of digital initiatives, emphasising the importance of leadership that is both flexible and strategically driven.

Transactional leadership with its focus on preserving operational effectiveness through planned incentives and punishments, is crucial to managing the daily stability of organisations (Khan, 2017; Novitasari et al., 2021). As academic institutions deal with expanding student numbers, resource constraints and heightened responsibilities (Cloete, 2020), transactional leadership ensures that daily functions, academic operations and compliance with performance goals are met effectively. However, although transactional leadership promotes stability, it is insufficient for fostering the innovative change required to prosper in today's turbulent higher education landscape. To complement transactional leadership, transformational leadership plays a crucial role in encouraging visionary change and establishing a culture of continual improvement and innovation (Baba et al., 2021). This leadership style is increasingly important when institutions face disruptive factors like advances in technology and changing student expectations, requiring leaders who can inspire and guide their teams through crucial institutional change. Furthermore, agile leadership has become increasingly vital in anticipating and adapting to change with the use of new technologies (Fischer & Charef, 2021). Agile leaders prioritise flexibility and reactivity, allowing institutions to swiftly adjust to new challenges, such as effectively meeting students' needs and increasing competition from universities globally (Ratajczak, 2023).

This study investigates the relationship between three key leadership styles – transformational, transactional and agile – and perceptions of institutional performance among leaders at South African universities. As the higher education environment in South Africa continues to change, understanding which style best supports performance could inform the development of academic leaders. With limited prior research on leadership outcomes in South African HEIs (Jooste et al., 2018), this study provides timely insight.

Research purpose and objectives

In the 21st century, it is critical for academic leaders to have a variety of leadership abilities in order to be successful at an institution (Navia & Nasser, 2022). The available literature indicates that there are essential components of leadership competencies required in HEIs. These are transformational qualities essential for serving as a role model for followers, enabling them to carry out the vision and mission of HEIs and to effectively lead multiple employees across various faculties while also motivating change (Delener, 2013). Transactional qualities are required in exploring the bureaucracies of the universities to effectively lead faculty members (Novitasari et al., 2021). These qualities are proven to optimise business performance as transactional leaders set clear expectations and reward employees for achieving performance goals (Jacobs & Mafini, 2019). Agile qualities are also essential as Frantz et al. (2020) highlight that one of the major difficulties faced by academic leaders today is their capacity to adjust to change while simultaneously maintaining self-motivation inside the institution. This is becoming increasingly important as institutions are constantly facing new, unexpected challenges.

The need for teaching leadership skills among academic leaders is important in light of the various leadership styles being employed by individuals and the scant education and training for those seeking leadership positions (Wahab et al., 2016). The proper selection of leadership style used by academic leaders is significant to assume a major role in the progression of the general institutional performance of their faculty units.

Therefore, the purpose of this study is to investigate the relationships between transactional, transformational and agile leadership styles on perceptions of institutional performance among academic leaders at South African universities. The main research question explores which leadership style has the strongest relationship with institutional performance.

Literature review

The literature review discusses the HEI context in South Africa and the various variables being researched such as the leadership styles and institutional performance.

Higher education in South Africa and institutional performance

One of the key pillars of the economic, social and political development of any country is education (Shrivastava & Shrivastava, 2014). In South Africa, the administration of primary and secondary schools falls under the jurisdiction of the Department of Basic Education (DBE), while the responsibility for higher education and vocational training is vested in the Department of Higher Education and Training (DHET). These two government departments are responsible for the supervision and management of the education system in the nation (Mhlanga & Moloi, 2020).

Higher education institutions face immense pressure to enhance the efficiency of their processes and the quality of their services to improve overall performance (Dwaikat, 2020). The quality of an HEIs performance attracts scrutiny from various stakeholders, including donors, legislators, corporations, administration, students, parents, researchers and academics (Tasopoulou & Tsiotras, 2017). Global university rankings, such as the Quacquarelli Symonds (QS) Rankings, Times Higher Education rankings and the Academic Ranking of World Universities (ARWU) assess performance metrics such as staff-student ratio, faculty qualifications, research output, citations and awards (Komotar, 2020).

Various models have been proposed to evaluate the quality of HEIs, but no consensus on a comprehensive strategy has been reached (Dwaikat, 2020). The input-process-output model offers a theoretical framework to examine this issue. The input perspective considers resources, infrastructure, student intake, academic staff, curriculum and other resources (Begg, 2007). The output perspective highlights qualifications, skills, competencies and graduate employment prospects (Chen et al., 2013). The process perspective evaluates how tasks are executed, such as teaching methods, exam administration and policy implementation (Chen et al., 2013).

In this study, the perceptions of academic and support staff at South African universities serve as input. The influence of transformational, transactional and agile leadership styles represents the process component. Institutional performance, measured by perceived institutional and market performance, constitutes the output. This framework aims to shed light on the role of leadership styles in driving institutional performance in the dynamic higher education landscape (Figure 1).

The study uses a tool developed by Delaney and Huselid (1996) to measure institutional performance in HEIs. The tool has two dimensions: perceived institutional performance and perceived market performance. Perceived institutional

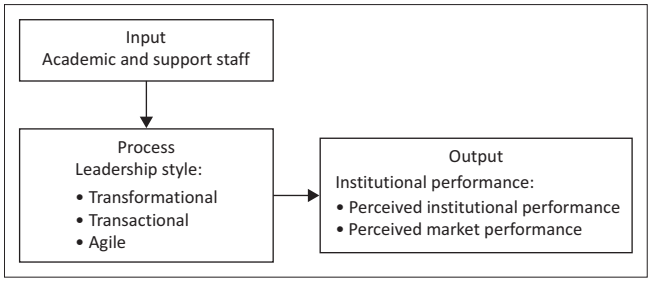

FIGURE 1: Input-process-output model.

performance focusses on product and/or service quality, new product development and customer satisfaction. Product and/or service quality in HEIs refers to the quality of educational provisions such as curriculum, learning resources, infrastructure, classrooms, equipment and student facilities (Amin et al., 2020). New product development involves implementing new or enhanced educational offerings to meet stakeholder needs (Mykhailyshyn et al., 2019). Customer satisfaction relates to meeting or exceeding expectations of students, parents, alumni and employers (Cardona & Bravo, 2012). Perceived market performance is concerned with financial results. HEIs face limited resources and increasing expenses (Al-Kharusi & Murthy, 2017). Financial stability enables achieving goals, offering value, maintaining ranking and appealing in the industry (Al-Kharusi & Murthy, 2017). Ngcobo et al. (2024) further highlight that significant financial difficulties pose a threat to the sustainability of South African universities. Universities are experiencing concerns regarding issues like reduced government financing, inconsistent tuition collection and the need to raise more money. Revenue sourcing is believed to be a financial difficulty, and it is not feasible to rely just on one source of income.

Transactional leadership

Transactional leadership, rooted in the concept of exchange, focusses on the leader-follower interaction to achieve predetermined goals and maintain organisational efficiency (Paracha et al., 2012). Bass (1985) characterises transactional leaders as those who operate within existing systems, prioritise risk minimisation and efficiency, and value procedural control over innovation. The effectiveness of transactional leadership lies in its ability to compare current activities with past experiences, ensuring consistency and reliability (Lowe et al., 1996).

Barbuto (2005) highlights that transactional leadership encompasses several dimensions. One key dimension is a contingent reward, where leaders and followers engage in reciprocal actions to achieve shared goals through incentives and rewards for agreed-upon work and accomplishments. Management by exception, both active and passive, represents another dimension. Active management focusses on intervention upon deviations from established standards, while passive management involves minimal involvement until issues arise.

Within the HEI setting, Webb (2009) found that a favourable characteristic of transactional leadership was the use of contingent rewards as it showed a positive influence on job satisfaction. This finding was further supported by Alonderiene and Majauskaite (2016), who examined the impact of leadership styles on job satisfaction in HEIs. Both studies emphasised that followers tend to be more satisfied when leaders employ positive reward systems to reinforce desired behaviours. In a practical setting, this could include using bonuses or research grants to boost faculty publication. Another example could be using special teaching recognition awards or professional development opportunities for academic staff who have shown excellence in student evaluations. Huang et al. (2021) highlight that a positive exchange relationship brought about by contingent reward behaviours would increase followers' sense of significance and self-worth. In contrast, Benjamin (2016) argues that transactional leaders do not usually offer incentives for exceeding the first aim or acknowledge or commend individuals for their achievements beyond it. The absence of recognition for better success by the transactional leader might demotivate followers or discourage them from aiming for higher goals, which would be detrimental to HEIs. This is further supported by Algahtany and Bardai (2019), who highlight that contingent rewards can be ineffective if not properly tied to the quality of output. They further emphasise that incentives have been demonstrated to boost performance, improve employee loyalty and draw in top talent, but they can also cause people to place more emphasis on the rewards than the effort and quality of their work itself. In this case, financial incentives might motivate staff members instead of internal motivation, therefore compromising performance standards.

Transformational leadership

Transformational leadership, introduced by Burns (1978), contrasts with transactional leadership by emphasising a leader's ability to communicate a compelling vision, intellectually challenge followers and prioritise interpersonal relationships (Lowe et al., 1996). While initially seen as distinct, Bass (1985) proposed a complementary relationship between the two styles, highlighting that transactional behaviours support the effectiveness of transformational leadership. This integration led to the development of the Multifactor Leadership Questionnaire (MLQ), a tool used to assess leadership behaviours and their impact on organisational functioning (Bass et al., 1987).

Within the framework of transformational leadership, Hay (2006) identified four dimensions: idealised influence, inspirational motivation, individualised consideration and intellectual stimulation. Idealised influence refers to a leader's capacity to project strength and confidence while serving as an example for those who follow them. Inspirational motivation refers to a leader's capacity to communicate an appealing and motivating vision to their people. Conversely, though, individualised consideration refers to the extent to which a leader caters to the needs of each follower, serves as a mentor or coach to the follower, and pays attention to the wants and concerns of the follower. Intellectual stimulation refers to the extent to which leaders inspire their people to utilise imagination and originality to come up with fresh approaches to achieving goals and objectives. These dimensions collectively enhance follower commitment, creativity and performance, with empirical studies consistently correlating them with leader effectiveness (Ghadi et al., 2013; Lowe et al., 1996).

According to studies, transformational leadership predominates over other leadership styles at HEIs because it is linked to innovative behaviours and skill development,

both of which are essential for the education sector (Baba et al., 2021). Furthermore, transformational leaders inspire followers to exceed expectations, fostering a culture of shared purpose and personal growth within the institution.

Agile leadership

Agile leadership embodies a proactive approach to navigating change and uncertainty, enabling organisations to thrive in dynamic environments (Prejean et al., 2019). Rooted in the ability to adapt swiftly and effectively, agility encompasses various strategies, practices and mindsets aimed at maximising value with minimal effort (Hanenberg, 2011). Historically, agile methodologies trace back to Walter Shewhart's Plan-Do-Study-Act cycles and gained prominence in IT and software development projects before expanding into diverse domains (Torchiano & Jedlitschka, 2020). Takeuchi and Nonaka (1986) introduced agile principles through a team-oriented approach, likening it to a rugby game where teams collaborate seamlessly to achieve goals, setting the stage for methodologies like 'scrum'. As organisations increasingly embrace agility beyond technical domains, agile leadership emerges as a critical factor driving organisational resilience and success (Horney & O'Shea, 2015).

Research conducted by Joiner and Josephs (2006) highlights five distinct stages that leaders move through in developing leadership agility. Each stage involves a unique set of competencies shedding light on agile leadership. The first stage is the expert leadership level which is tactical and problem-oriented under a steady environment. This level is best suited for situations in which success may be attained by making insignificant adjustments to current techniques. The achiever leadership level is strategic and outcome-directed in a moderate environment between considerable change and stability. In circumstances that are fairly complicated and where the speed of change necessitates sporadic changes in company strategy, achievers may be quite successful. The next level of leadership is catalyst leadership, where individuals with the necessary skills and an inventive, inspirational vision are brought together to make the leader's vision a reality. Catalysts have a strong incentive to develop a participatory culture capable of producing desired results over an extended period of time. The co-creator leadership is different as it is focussed on teamwork and a common goal. Leaders are dedicated to creating genuinely cooperative teams and organisational connections based on a strong sense of common purpose. The last is the synergist level, which is holistic, taking into account both the personal growth of the leader and the benefit of all stakeholders. It has the capacity for a leader to immerse themselves in the moment, which is what sets these leaders apart. When this capacity for present-centred awareness grows, it offers leaders the ability to remain in the heart of the storm amid tense and volatile circumstances.

Building on the framework highlighted by Joiner and Josephs (2006), scholars like Sanatigar et al. (2017) and Fachrunnisa et al. (2020) have outlined dimensions of agile leadership, including teamwork, diversity acknowledgement and innovation. However, measuring agile leadership remains challenging within HEIs because of the limited research on suitable measurement instruments. Proulx (2010) proposed an instrument based on agile practices, covering management and leadership style, collaboration and teamwork, and competencies and mastery. These dimensions mirror the leadership levels discussed by Joiner and Josephs (2006), offering a way to assess agile leadership in this study.

Like other organisations, HEIs function in a highly unpredictable and dynamically changing environment. To remain competitive in the local and international education markets, agile leadership is essential as it comes with being able to quickly adapt and modify the way they operate (Ratajczak, 2023). New consumer expectations, product advancements, collaborative innovation and organisational forms have all been impacted when technology-enabled platforms disrupt conventional industry structures, such as those seen in the 'sharing' or 'on- demand' economy. HEIs that are typically run in a bureaucratic management style in order to comply with laws and regulations will need to embrace 'agile' governance that supports employees, just as the private industry has widely embraced agile responses to software advancement and business processes in general (Prejean et al., 2019). In line with this, Mazurek (2019) argues that for HEIs to digitally transform in order to adapt technology is not the only aspect to consider. It involves a systemic shift that includes transforming the organisational culture from hierarchical to interconnected, establishing decision-making based on centralised, standardised data, enhancing the digital competencies of all HEI staff members, putting in place tools that foster innovative teaching practices, and cultivating social media relationships with stakeholders. A recent study by Ratajczak (2023) found that adopting agile leadership practices may boost innovation in HEIs, optimise instructional methods and raise educational standards.

The relationship between transformational, transactional and agile leadership on institutional performance

Leadership style has been shown to significantly impact institutional performance in HEIs. Transformational leadership in particular has a strong positive relationship with performance outcomes (Ejere & Abasilim, 2013; Gupta, 2014; Waham et al., 2020). Transactional leadership can also lead to successful organisational outcomes, although it may not provide the same level of engagement and motivation as transformational leadership (Hudson & Hudson, 2011; Timothy & Akpa, 2011). However, some studies have found transactional leadership to better predict performance and satisfaction in certain contexts like small and medium enterprises (Abdulaziz Albloshi & Sabri Nawar, 2015). There is limited research on the relationship between agile leadership and institutional performance. Initial findings reveal agile leadership has a positive effect because of its focus on forming

aligned, interdisciplinary teams and continually conveying the organisational vision to motivate and unify employees towards shared goals (Subramaniam, 2021). Furthermore, a recent study by Ratajczak (2023) found that agile leadership practices support the digital transformation of HEIs, making this a suitable leadership style considering the VUCA environment today. By developing strong leader-follower relationships and competencies in both leaders and team members, agile leadership enables the agility and adaptation needed to improve performance. The following hypotheses are proposed:

H1: There is a positive statistically significant relationship between transformational leadership and institutional performance.

H2: There is a positive statistically significant relationship between transactional leadership and institutional performance.

H3: There is a positive statistically significant relationship between agile leadership style and institutional performance.

The proportion of variance explained by the respective leadership styles

While all three leadership styles demonstrate the potential for performance impacts, there is minimal comparative analysis in the academic literature. Most research examines the styles independently or compares only two. Khan et al. (2017) found transformational and transactional leadership significantly predict performance, with transformational having greater influence. No identified studies have yet compared all three styles – transformational, transactional and agile leadership – in explaining the variance in institutional performance. This is a critical gap given the diverse competencies displayed across the styles. Transactional leadership offers stability, accountability and resource optimisation. Transformational leadership drives innovation, inspiration and dedication. Agile leadership confers the ability to anticipate and adapt. Determining which style explains the most variance can thus help identify targeted needs for leadership development within higher education to maximise institutional performance.

There is a need for further research comparing the proportion of variance explained by transformational, transactional and agile leadership styles in relation to institutional performance in HEIs. Findings would provide insight into the comparative utility of the styles and help inform leadership training to boost performance outcomes in a complex, continuously evolving sector. The following hypothesis is further proposed:

H4: Transformational leadership, agile leadership or transactional leadership explains the largest statistically significant proportion of the variance in institutional performance.

Research design

Research approach

This study used a quantitative approach to investigate the influence of transformational, transactional and agile leadership styles on institutional performance in HEIs. More specifically an ex-post factor correlational research design was used to determine the association between leadership styles and institutional performance. The quantitative research strategy finds its foundation in the philosophical school of thought known as logical positivism, a prevalent paradigm in the social sciences (Babbie, 2016). The positivist approach, forming the basis of the natural scientific method in human behaviour research, maintains that the study must be restricted to what can be observed and measured objectively, irrespective of the participant's thoughts and ideas. Within this positivist approach, the research process is approached deductively, using the technique to test a hypothesis that is usually expressed quantitatively and in which the relationship between the explanatory and causal factors (independent variables) and the outcomes (dependent variables) may be deduced. The hypothesis-deductive approach follows a step-by-step procedure, beginning with a literature review to generate a hypothesis, developing research by conceptualising variables, and carrying out an empirical investigation based on the results of the research. The findings of the study are then utilised to strengthen or improve the theory and add to the body of literature, as a theory can be refined or enhanced by using the results of an empirical inquiry (Park et al., 2020).

Participants

Table 1 outlines the demographic characteristics of the respondent's data relating to HEI, gender, age, qualification and length of service and position.

In South Africa, there are 26 public universities (USAf, 2024). The population for the present study consists of academic and support staff from five institutions. These universities were selected primarily because they were the first to grant ethical clearance for research participation. Given the time-consuming nature of the ethical clearance process, outreach to additional universities stopped once a reasonable sample size was obtained. The HEIs involved in this study were the University of Stellenbosch, the University of the Western Cape, Rhodes University, the University of the Free State and the University of Cape Town.

Units of analysis were sampled from the target population. In the five HEIs that were selected, an aggregated 14 465 employees were reported as permanent staff (DHET, 2023). More specifically, 4378 (30.2%) were academic staff and 10 087 (69.7%) were support staff. It is noted that the present study also included temporary employees; however, the numbers provided by the DHET only include permanent staff. Thus, there were more than 14 465 people in the population from which the sample was taken. According to Sekaran (2003), a representative sample for this population would be $n = 375$.

Both academic and support staff were included in the unit of analysis to illustrate leadership across different roles within HEIs. Both groups are integral to ensuring the institution's overall performance and success and provide a holistic view of leadership practices in response to changing educational demands.

The sample size consisted of 227 academic and support staff members who were willing to participate in the study. A non-probability sampling, specifically the convenience sampling technique was used. This technique was used as it was the easiest way to sample the population in light of the difficulty of accessing staff members at HEIs for data gathering. Furthermore, it allowed for a timely and cost-effective way of gathering data. It is acknowledged that the sample size is not generalisable to the population. However, for the purpose of this exploratory study, the sample size was sufficient for data analysis.

As outlined in Table 1, participants were predominantly male (60.7%) compared to female (38.4%) and most worked at the University of Free State (50.9%) or the University of the Western Cape (31.3%).

The largest proportion of participants were aged 35–45 years (26.8%), followed by 18–23 years (21.9%) and 56–60 years (7.1%). In terms of qualifications, most held a Doctorate (28.6%) or Master's degree (25.4%). Regarding length of service, the greatest number of respondents worked at their institution for 0–3 years (30.4%) or 4–10 years (26.8%). Lastly, the sample was comprised mainly of academic staff (62.5%), with the largest subgroup being lecturers (22.3%). Support staff made up 37.5% of participants.

Measuring instruments

Participants completed a questionnaire which included the Multifactor Leadership Questionnaire (MLQ 5X) (Bass, 1985), the Agile Leadership Questionnaire (Proulx, 2010) and the Institutional Performance Questionnaire (Delaney & Huselid, 1996). Participants also reported their demographic information such as age, gender, position and length of service while employed by their current employer.

Transformational and transactional leadership

The Multifactor Leadership Questionnaire (MLQ 5X) developed by Bass (1985) was utilised. This widely used and validated instrument employs a rater format to assess perceptions of leadership behaviours on a 5-point Likert scale. Sixteen items were used to measure transactional and transformational leadership across five transformational subscales (idealised influence – attributed and/or behaviour, inspirational motivation, intellectual stimulation and individual consideration) and three transactional subscales (contingent reward, management by exception – active and/or passive). The MLQ was selected because of its strong reliability (α = 0.74–0.94) and construct validity confirmed in international studies (Antonakis, 2001). Recent local studies also demonstrated good reliability for both transformational (α = 0.972) and transactional (α = 0.695) scales (Gautam & Enslin, 2019). The MLQ effectively quantifies the full-range leadership model, making it highly suitable for measuring these leadership styles.

Agile leadership

A 15-item questionnaire developed by Proulx (2010) was adapted to measure agile leadership. The original scale lacks reported reliability or validity. However, a Cronbach alpha reliability of α = 0.91 was found in the present study. A 4-point Likert scale was used to assess perceptions of agile leadership behaviours and qualities. To tailor the instrument, 'organisation' was changed to 'institution' for the higher education context. The dimensions reported were: management and leadership style, collaboration and teamwork, and competencies and mastery. Reliability and factor analysis were performed on the adapted questionnaire to validate its use in this context. Modifications enhanced the measurement of the agile leadership construct within higher education institutions.

Institutional performance

The Organisational Performance scale developed by Delaney and Huselid (1996) was utilised to assess institutional

TABLE 1: Demographic characteristics.

Variable	Category	Frequency	%
Gender	Male	136	60.7
	Female	86	38.4
	Prefer not to say	2	0.9
Higher education institution	Rhodes University	13	5.8
	University of the Western Cape	70	31.3
	University of Cape Town	16	7.1
	University of Free State	114	50.9
	Stellenbosch University	11	4.9
Age (years)	18–23	49	21.9
	24–35	35	15.6
	35–45	60	26.8
	46–55	47	21.0
	56–60	16	7.1
	60+	17	7.6
Qualification	Matric/Grade 12	19	8.5
	Certificate	4	1.8
	Diploma	8	3.6
	Bachelor's degree	30	13.4
	Honours degree	38	17.0
	Master's degree	57	25.4
	Doctorate degree	64	28.6
	Other	4	1.8
Length of service (years)	0–3	68	30.4
	4–10	60	26.8
	11–15	39	17.4
	16–20	20	8.9
	21+	31	13.8
	Not applicable	6	2.7
Position	Research Assistant	9	4.0
	Tutor	10	4.5
	Senior Lecturer	11	4.9
	Lecturer	50	22.3
	Faculty Manager	13	5.8
	Head of Department	11	4.9
	Deputy Dean	1	0.4
	Dean	3	1.3
	Professor	24	10.7
	Director/Deputy Director	8	3.6
	Professional/Support Staff	84	37.5

performance. This adaptable, widely-used 11-item instrument has two subscales – perceived organisational performance (seven items) and perceived market performance (four items). A 4-point Likert scale measures product quality, innovation, customer satisfaction, profitability and market share. The scale was selected for its strong reported reliability and validation across sectors, enabling comparison (Delaney & Huselid, 1996). For this study, 'organisational' was changed to 'institutional' to fit the higher education context. The Delaney and Huselid scale offers a reliable, validated measure of performance outcomes, making it suitable for assessing institutional performance in higher education. Reliability and validation tests have been consistently published (Chan et al., 2004; Newbert, 2008; Perry-Smith & Blum, 2000), further evidencing appropriateness. The total score for this instrument was used for analysis.

Research procedure

After obtaining ethical clearance and permission to access staff for data gathering, a consolidated survey was sent out to five South African public HEIs using the university process. The surveys were sent by the relevant officials at the universities, hence protecting participant contact information. The survey included the demographic section and research instruments discussed. The voluntary questionnaire included an information sheet and consent form which guaranteed participants autonomy and confidentiality, and made participants aware that results were used for research purposes only. Participants had the option to consent prior to completing the survey, the data received was securely stored and coded before analysis in SPSS version 28.

Statistical analysis

The first step in the analysis was to determine the Cronbach alpha reliability, the means and standard deviations of each variable being studied. In the second stage, to determine the influence between the various leadership styles and institutional performance Pearson's product-moment correlation coefficient (r) was applied. Guidelines by Cohen (1992) were used that suggest $r = 0.10$, $r = 0.30$ and $r = 0.50$ are small, medium and large magnitudes. In the last stage, the least squares approach was used to determine the regression analysis between leadership style and institutional performance. This demonstrated which leadership style explains the biggest proportion of variance in institutional performance.

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 (reference no.: HS22/4/16).

Results

Reliability of the survey instruments

Table 2 provides a summary of the Cronbach alpha reliability for each of the survey instruments.

When calculating the reliability score for the total transactional leadership scale, item MEP2.1 from the dimension *management by exception (passive)* was problematic. The item was 'My leader waits for things to go wrong before taking action'. The scale initially had an overall Cronbach's alpha $\alpha = 0.386$. Upon removal of the item, Cronbach's alpha increased the overall reliability of the measurement tool $\alpha = 0.530$, which still showed poor reliability that is less than 0.7 (Sekaran, 2003). Further items could not be removed from the existing dimension as it only contained two items. Because of the low reliability of the transactional leadership scale total, the results on this scale should be interpreted with caution.

In the agile leadership scale, one item was deleted in order to increase the overall reliability. The deleted item came from the *collaboration and teamwork* subscale. The item deleted was CT3.3 'Are agreements between staff and the leader made and accepted without official sign-off?' The scale initially had an overall reliability of $\alpha = 0.534$. When the item is removed, Cronbach's alpha increased the overall reliability of *collaboration and teamwork* $\alpha = 0.738$. According to Sekaran (2003), this is deemed as an acceptable level. Furthermore, the total reliability of the agile leadership instrument, excluding item CT3.3, showed good reliability at $\alpha = 0.910$.

In summary, the reliability analysis showed that the Cronbach alpha for the 10-item transformational scale represented $\alpha = 0.941$, the 5-item transactional scale represented $\alpha = 0.530$, the 14-item agile leadership scale represented $\alpha = 0.910$ and the 11-item institutional performance scale represented $\alpha = 0.909$. The institutional performance, transformational leadership and agile leadership scale all exceeded an acceptable criterion of reliability $\alpha > 0.7$, thus these measurements were deemed to be reliable. The transactional leadership scale fell within a poor criterion $\alpha \geq 0.5$, casting doubt on the reliability of this measure (Sekaran, 2003).

Distribution of data

The skewness and kurtosis scores for each variable were examined to further understand how the data were distributed. Table 2 shows the skewness scores for agile leadership (–0.222), institutional performance (–0.298) and transformational leadership (–0.671). All scores demonstrated negative skewness, indicating a left skew in the distribution. However, transactional leadership (0.075) demonstrated positive skewness, indicating a slight right skew in the distribution. Table 2 further shows the negative kurtosis scores for agile leadership (–0.559), institutional performance (–0.241) and transformational leadership (–0.300). This suggests that the distribution is platykurtic, meaning it has lighter tails and is less peaked than a normal distribution. The positive kurtosis score for transactional leadership (1.206) suggests that the distribution is leptokurtic, meaning it has heavier tails and is more peaked compared to a normal distribution. The values of asymmetry (skewness) and kurtosis all range between –2 and +2; therefore, it is recognised as acceptable values and demonstrates the normal univariate distribution (George & Mallery, 2010).

Correlation analysis

Table 2 demonstrates the correlations between the variables to determine whether they have a relationship with each other. The results show all leadership styles had a positive statistically significant relationship with institutional performance at $p < 0.01$. Transformational leadership demonstrated the largest correlation with institutional performance $r = 0.549$, followed by agile leadership $r = 0.442$ which also showed a moderate and substantial relationship. Transactional leadership correlated the least $r = 0.240$ with institutional performance which was a low correlation, definite but small relationship. All leadership demonstrated a statistically significant relationship with institutional performance therefore hypotheses 1–3 were accepted.

Regression analysis

Table 3 demonstrates the regression analysis between the various leadership styles and institutional performance.

The dependent variable (institutional performance) was regressed on the independent variables of transformational leadership, transactional leadership and agile leadership. The independent variables significantly explained the variance in institutional performance, F (3, 220) = 34.170, $p < 0.001$. This demonstrates that the three variables have a significant impact on institutional performance. Moreover, the R^2= 0.318 depicts that the model explains 31.8% of the variance in institutional performance.

Coefficients were further assessed to ascertain the influence of each of the factors on institutional performance. Transformational leadership had the largest positive relationship with institutional performance (β = 0.28), indicating that a 1-unit increase in transformational leadership is associated with a 0.280 increase in performance. This relationship was statistically significant. Agile leadership also had a significant positive relationship with performance (β = 0.159), with a 1-unit increase in agile leadership associated with a 0.159 increase in performance. Transactional leadership did not explain a statistically significant amount of variance in institutional performance ($p = 0.217$).

TABLE 2: Descriptive statistics and the relationships between variables.

Scale	α	M	SD	Skewness	Kurtosis	1	2	3
1. TL	0.94	2.67	0.10	-0.67	-0.30	/	-	-
2. TAL	0.53	1.95	0.65	0.07	1.21	0.35**	/	-
3. AL	0.91	2.66	0.65	-0.22	-0.56	0.66**	0.13	/
4. IP	0.91	2.74	0.66	-0.30	-0.24	0.55**	0.24**	0.44**

Note: The / indicates that no correlation coefficient is provided for a variable with itself.

α, Cronbach alpha reliability; M, mean; SD, standard deviation; TL, transformational leadership; TAL, transactional leadership; AL, agile leadership; IP, institutional performance.

**, Statistically significant at the $p < 0.01$ (2-tailed).

TABLE 3: Regression analysis with institutional performance as the outcome variable.

Variable	Beta	SE	LL	UL	B	*p*
TL	0.28	0.05	0.18	0.38	0.42	< 0.001
TAL	0.08	0.06	-0.04	0.20	0.07	0.217
AL	0.16	0.08	0.01	0.31	0.16	0.038

Notes: $p < 0.05$. 95% Confidence interval.

TL, transformational leadership; TAL, transactional leadership; AL, agile leadership; CI, confidence interval; SE, standard error; LL, lower level; UL, upper level.

Overall, transformational leadership explained the biggest proportion of variance in institutional performance out of the leadership styles. Both transformational and agile leadership positively explained the variance in performance, supporting hypothesis 4. Transactional leadership did not have a significant influence.

Discussion

Outline of results

The aim of the study was to explore the relationship between transformational, transactional and agile leadership with perceptions of institutional performance in South African Higher Education institutions. The results indicated a moderate positive relationship between transformational leadership and institutional performance ($r = 0.549$, $p < 0.01$), supporting Hypothesis 1. This aligns with previous research showing transformational leadership positively influences performance outcomes in higher education institutions (Ejere & Abasilim, 2013; Waham et al., 2020).

A statistically significant yet weaker correlation was found between transactional leadership and institutional performance ($r = 0.240$, $p < 0.01$), providing support for Hypothesis 2. Though not as strong as transformational leadership, transactional leadership can still be beneficial for stability and compliance in higher education institutions (Bass, 1985; Leithwood & Jantzi, 2000; Novitasari et al., 2021).

Agile leadership also showed a positive significant correlation with institutional performance ($r = 0.442$, $p < 0.01$), affirming Hypothesis 3. This suggests the adaptability and innovation of agile leadership can be useful for addressing emerging challenges and encouraging continuous improvement in HEIs, especially in relation to new digital technologies (Abbas et al., 2022; Subramaniam 2021).

The regression analysis showed the leadership styles collectively explain 31.8% of the variance in institutional performance (R^2= 0.318), supporting Hypothesis 4. However, this analysis should be seen as exploratory, because of the low reliability of the transactional leadership scale. Further analysis revealed transformational leadership explains the greatest proportion of variance, followed by agile leadership. Transactional leadership did not explain significant unique variance. This aligns with studies linking participative leadership styles to performance (Akonkwa et al., 2022; Ince et al., 2015; Tawaha, 2016).

Practical implications

This study underscores the value of cultivating transformational leadership qualities through hiring practices and leadership development in HEIs, as transformational leaders inspire faculty and staff commitment towards a

shared vision and institutional goals (Bass, 1985; Delener, 2013). Development programmes should hone transformational competencies among institutional leaders, focussing on establishing a vision, encouraging innovation, providing support and modelling values (Leithwood & Jantzi, 2000). As discussed, in the face of increasing enrollment, stretched resources and increasing academic obligations, the government places a high priority on correcting historical racial injustices in South Africa (Cloete, 2020; Du Plessis, 2020). Transformational leaders are visionary, in that they can present an engaging institutional vision in line with the nation's larger educational objectives. A leader who can motivate people with a vision of inclusive education may propel significant change in South Africa, where social transformation and educational equity are of utmost importance. Coupled with this is building a culture of excellence within academia. Transformational leaders set high standards for institutional performance and innovation (Baba et al., 2021). They create an environment where employees, students and teachers are inspired to pursue success in their specialised fields.

Additionally, the value of agile leadership is emphasised in this study. Agile leadership capabilities are essential for embracing change, swift decision-making and navigating uncertainty (Prejean et al., 2019). Promoting a culture of experimentation, collaboration and learning can help South African HEIs adapt to evolving contexts (Singh, 2016). A study conducted by Mahel (2021), which investigated leadership competence in HEIs for the VUCA environment, found that collaboration, communication, adaptability and motivation were the four leadership competence indices that demonstrated the leaders' exceptionally high degree of proficiency. It was further suggested that leaders within HEIs should cross-pollinate ideologies and skills that will enable them to function effectively and efficiently in the face of VUCA challenges, which are certain to arise both now and in the future. These competencies are well routed within agile leadership practices and methodologies and could yield positive organisational outcomes in HEIs. As discussed previously, teaching and learning methods are evolving with the increased use of technology making the HEI environment more digitalised (Ratajczak, 2023). In a different study, Delioğlu and Uysal (2022) affirmed that the seamless and effective integration of digital transformation in organisational structure and function is greatly dependent on agile leadership.

While less impactful, transactional leadership remains relevant for upholding operations, compliance and procedures (Leithwood & Jantzi, 2000; Novitasari et al., 2021; Pham et al., 2017). A study by Novitasari et al. (2021) affirms that the instructional element of transactional leadership is beneficial at HEIs. Although transactional leadership is not as motivationally inspiring as transformational leadership, it is crucial in ensuring that HEIs run efficiently and successfully. Transactional leadership can be very useful in situations requiring stability and responsibility, such as financial management, regulatory compliance and sustaining good academic standards. Institutions should leverage a mix of leadership approaches fitting their unique objectives and challenges. This implies adjusting development initiatives to build transformational, agile and transactional skills.

Higher education institutions should cultivate transformational leadership through hiring and development programmes, as it shows the strongest link to performance. Agile leadership capacities should also be built to embrace change. While transactional leadership is less impactful, it remains relevant for operations and compliance. Institutions should leverage a mix of leadership approaches fitting their unique contexts.

Limitations and recommendations

This study had three main limitations. Firstly, the small sample size may have restricted the diversity and generalisability of the results. Secondly, concerns were raised about the reliability of the transactional leadership scale regarding internal consistency and stability. This indicates correlations and regression results involving this scale should be interpreted cautiously. Finally, there is limited existing research on agile leadership in higher education contexts, constraining the ability to build a robust theoretical framework and fully grasp the implications of agile leadership on performance. The lack of established agile leadership measures makes linking theory to the survey instrument difficult. Further research is needed to strengthen the theoretical foundations and measurement tools for examining agile leadership in higher education settings.

For future research, scholars should use larger, more diverse samples to improve generalisability and depictions of the higher education sector. Additionally, researchers could explore alternate transactional leadership instruments or qualitative evaluations to address the reliability limitations observed. Finally, given the restricted research on agile leadership in higher education, academics should extend this work through expanded literature reviews, primary studies and scholarly discussions to provide a robust basis for real-world application.

Conclusion

This study makes an important contribution by examining how transformational, transactional and agile leadership styles influence institutional performance in HEIs. The results reveal transformational leadership holds the strongest positive correlation with performance. Agile leadership also showed a significant positive link. This suggests South African institutions should focus their hiring and leadership development efforts on cultivating transformational and agile capacities among institutional leaders.

While transactional leadership demonstrated a weaker yet still significant correlation, it remains relevant for managing operations and upholding stability. Thus, institutions should

consider balancing a mix of leadership approaches tailored to their specific contexts and challenges. More research is needed with larger, more diverse samples and alternate leadership instruments to further investigate these connections within the complex HE landscapes both locally and globally.

As institutions face escalating change, uncertainty and demands, understanding how to optimise leadership strategies and styles can help drive institutional excellence. Though more work remains, this study offers initial evidence and recommendations for how South African HEIs can begin shaping policies, programmes and cultures to support the leadership capacities needed now and into the future.

Acknowledgements

This article is partially based on the author, M.S.'s thesis entitled 'The influence of transformational, transactional, and agile leadership styles on institutional performance in higher education institutions' toward the degree of Master of Arts in Industrial Psychology, University of the Western Cape, South Africa, with supervisors Prof. Marieta du Plessis and Prof. Carel Jansen van Vuuren, received November 2023.

Competing interests

The author reported that they received funding from the University Capacity Development Grant at the University of the Western Cape which may be affected by the research reported in the enclosed publication. The author has disclosed those interests fully and has implemented an approved plan for managing any potential conflicts arising from their involvement. The terms of these funding arrangements have been reviewed and approved by the affiliated university in accordance with its policy on objectivity in research.

Authors' contributions

M.S. contributed to writing the original draft, making changes based on suggestions and further conceptualised the research. Furthermore, M.S. carried out the investigation using the methodology, curated the data and analysed the research using software. M.d.P. acquired funding for the research project, contributed to the conceptualisation and analysis, edited the article for clarity, ensured the accuracy of the content and advised on the overall structure and presentation of the research. C.J.v.V. contributed to the conceptualisation, edited the article for clarity, ensured the accuracy of the content, and advised on the overall structure and presentation of the research.

Funding information

This research received funding from the University Capacity Development Grant at the University of the Western Cape.

Data availability

The authors confirm that the data supporting the findings of this study are included within the article, and the raw data are available from the corresponding author, M.S., upon reasonable request.

Disclaimer

The views and opinions expressed in this article are those of the authors and are the product of professional research. It does not necessarily reflect the official policy or position of any affiliated institution, funder, agency or that of the publisher. The authors are responsible for this article's results, findings and content.

References

Abbas, B., Jassmy, K., Abdul, E., & Katea, H. (2022). Agile leadership and its impact on organizational innovation by mediating high involvement. *Baltic Journal of Law and Politics, 15*(1), 1208–1235.

Abdulaziz Albloshi, F., & Sabri Nawar, Y. (2015). Assessing the impact of leadership styles on organisational performance. *Journal of Organisational Studies and Innovation, 2*(2), 66–77.

Akonkwa, D.B.M., Lunanga, E., Mukulu, J.B., Bugandwa, T.C., & Mwaza, E.F. (2022). Leadership styles and small enterprises' performance: Is gender an issue? Empirical study from Democratic Republic of Congo. *Journal of Entrepreneurship and Innovation in Emerging Economies, 8*(1), 60–82. https://doi.org/10.1177/23939575211044318

Algahtany, M.A., & Bardai, B. (2019). Quality attention/contingent reward and leadership styles (transformational/transactional). *SSRG International Journal of Economics Management Studies (SSRGIJEMS), 6*(2), 57–81. https://doi.org/10.14445/23939125/IJEMS-V6I2P107

Alonderiene, R., & Majauskaite, M. (2016). Leadership style and job satisfaction in higher education institutions. *International Journal of Educational Management, 30*(1), 140–164. https://doi.org/10.1108/IJEM-08-2014-0106

Al-Kharusi, S., & Murthy, S.R. (2017). Financial sustainability of private higher education institutions: The case of publicly traded educational institutions. *Investment Management and Financial Innovations, 14*(3), 25–38. https://doi.org/10.21511/imfi.14(3).2017.03

Amin, R., Khuwaja, Dr. A., & NisarAfridi. (2020). Impact of service quality on students satisfaction in higher education institutions. *Journal of Business & Tourism, 6*(1), 1–18. https://doi.org/10.34260/jbt.v6i1.176

Antonakis, J. (2001). *The validity of the transformational, transactional, and laissez-faire leadership model as measured by the Multifactor Leadership Questionnaire (MLQ 5X)*. Walden University. Retrieved from http://scholarworks.waldenu.edu/dilley

Baba, M.M., Makhdoomi, U.M., & Siddiqi, M.A. (2021). Emotional intelligence and transformational leadership among academic leaders in institutions of higher learning. *Global Business Review, 22*(4), 1070–1096. https://doi.org/10.1177/0972150918822421

Babbie, E. (2016). *The practice of social research* (14th edn.). Cengage Learning. Retrieved from https://www.cengagebrain.com

Barbuto, J.E. (2005). Motivation and transactional, charismatic, and transformational leadership: A test of antecedents. *Journal of Leadership & Organizational Studies, 11*(4), 26–40. https://doi.org/10.1177/107179190501100403

Bass, B.M., Avolio, B.J., & Goodheim, L. (1987). Biography and the assessment of transformational leadership at the World-Class Level. *Journal of Management, 13*(1), 7– 19. https://doi.org/10.1177/014920638701300102

Bass, B.M. (1985). *Leadership and performance beyond expectations*. The Free Press.

Begg, R. (2007). *The dialogue between higher education research and practice* (3rd edn.). Springer.

Benjamin, T. (2016). Transactional leadership limitations. *Small Business Chronicle*. Retreived from http://smallbusiness. chron. com/transactional-leadership-limitations-35903. html

Burns, J.M. (1978). *Leadership* (1st edn.). Harper & Row.

Cardona, M.M., & Bravo, J.J. (2012). *Service quality perceptions in higher education institutions: The case of a Colombian university* (pp. 23–29). Retrieved from https://www.elsevier.es/estudios_gerenciales

Chan, L.L.M., Shaffer, M.A., & Snape, E. (2004). In search of sustained competitive advantage: The impact of organizational culture, competitive strategy and human resource management practices on firm performance. *International Journal of Human Resource Management, 15*(1), 17–35. https://doi.org/10.1080/0958519032000157320

Chen, C.Y., Chen, P.C., & Chen, P.Y. (2013). Teaching quality in higher education: An introductory review on a process-oriented teaching-quality model. *Total Quality Management and Business Excellence, 25*(1–2), 36–56. https://doi.org/10.1080/14783363.2011.637789

Cloete, J. (2020). SA universities are failing to meet the challenges of teaching during the COVID-19 lockdown. *Daily Maverick*. Retrieved from https://www.dailymaverick.co.za/opinionista/2020-04-09-sa-universities-are-failing-to-meetthe-challenges-of-teaching-during-the-covid-19-lockdown/

Cohen, J. (1992). Statistical power analysis. *Current Directions in Psychological Science, 1*(3), 98–101. https://doi.org/10.1111/1467-8721.ep10768783

Cowling, N. (2024). *Gross tertiary education enrollment ratio in South Africa from 2012 to 2021*. Retrieved from https://www.statista.com/statistics/1261626/south-africa-gross-tertiary-school-enrollment-ratio/

Delaney, J.T., & Huselid, M.A. (1996). The impact of human resource management practices on perceptions of organizational performance. *Academy of Management Journal,* 39(4), 949–969. https://doi.org/10.2307/256718

Delener, N. (2013). Leadership excellence in higher education: Present and future. *The Journal of Contemporary Issues in Business and Government, 19*(1), 19–33. https://doi.org/10.7790/cibg.v19i1.6

Delioğlu, N., & Uysal, B. (2022). A review on agile leadership and digital transformation. *Yildiz Social Science Review, 8*(2), 121–128.

DHET. (2023). *Statistics on post-school education and training in South Africa*. Retrieved from https://www.dhet.gov.za

Dwaikat, N.Y. (2020). A comprehensive model for assessing the quality in higher education institutions. *TQM Journal, 33*(4), 841–855. https://doi.org/10.1108/TQM-06-2020-0133

Du Plessis, M. (2020). Model of coping with occupational stress of academics in a South African Higher Education Institution. *SA Journal of Industrial Psychology, 46*, 1–11. https://doi.org/10.4102/SAJIP.V46I0.1714

Ehlers, U.D. (2020). Digital leadership in higher education. *Journal of Higher Education Policy and Leadership Studies, 1*(3), 6–14. https://doi.org/10.29252/johepal.1.3.6

Ejere, E.I., & Abasilim, U.D. (2013). Impact of transactional and transformational leadership styles on organisational performance: Empirical evidence from Nigeria. *The Journal of Commerce, 5*(1), 30–41.

Fachrunnisa, O., Adhiatma, A., Lukman, N., & Maji, M.N.A. (2020). Towards SMEs' digital transformation the role of agile leadership and strategic flexibility. *Journal of Small Business Strategy, 30*(3), 65–85.

Fischer, B., & Charef, L. (2021). Leadership in an agile project management environment. *Journal of Leadership, Accountability and Ethics, 18*(4), 18–23. https://doi.org/10.33423/jlae.v18i4.4606

Frantz, J., Lawack, V., & Rhoda, A. (2020). Reflections of academic and professional leaders on leadership in a higher education institution. *SA Journal of Human Resource Management, 18*, 1–6. https://doi.org/10.4102/sajhrm.v18i0.1373

Gautam, A., & -Enslin, E. (2019). Transformational leadership and work engagement in the automotive retail industry: A study of South Africa. *International Business Research, 12*(5), 133. https://doi.org/10.5539/ibr.v12n5p133

George, D., & Mallery, M. (2010). *SPSS for Windows Step by Step: A Simple Guide and Reference, 17.0 Update* (10th edn.). Pearson.

Ghadi, M.Y., Fernando, M., & Caputi, P. (2013). Transformational leadership and work engagement: The mediating effect of meaning in work. *Leadership and Organization Development Journal, 34*(6), 532–550. https://doi.org/10.1108/LODJ-10-2011-0110

Gupta, N. (2014). Effects of leadership style on organizational performance: A study of selected Brick Klins in Jammu Region. In *International Conference on Management and Information Systems* (Vol. 4, pp. 29–34).

Hanenberg, L. (2011). *Training for agility: Building the skills employees need to Zig and Zag*. Retrieved from https://www.td.org/magazines/td-magazine/training-for-agility-building-the-skills-employees-need-to-zig-and-zag

Hay, I. (2006). Transformational leadership: characteristics and criticisms. *E-Journal of Organizational Learning and Leadership, 5*(2), 5–8. http://www.weleadinlearning.org/ejournal.htm

Horney, N., & O'Shea, T. (2015). *Focused, fast and flexible: Creating agility advantage in a VUCA world*. BookBaby.

Huang, Y.T., Liu, H., & Huang, L. (2021). How transformational and contingent reward leaderships influence university faculty's organizational commitment: The mediating effect of psychological empowerment. *Studies in higher education, 46*(11), 2473–2490. https://doi.org/10.1080/03075079.2020.1723534

Hudson, P., & Hudson, S. (2011). Distributed leadership and professional learning communities. *Australasian Journal of University Community Engagement, 6*(2), 1–17.

Ince, H., Keskin, H., Karakose, M., Gozukara, E., & Imamoglu, S. (2015). The role of leadership styles and organizational learning capability on firm performance. *Journal of Global Strategic Management, 1*, 110. https://doi.org/10.20460/JGSM.2015915633

Jacobs, E., & Mafini, C. (2019). Transactional leadership, supply chain quality and business performance in the fast-moving consumer goods industry. *Journal of Transport and Supply Chain Management, 13*(1), 1–13. https://doi.org/10.4102/jtscm.v13i0.442

Joiner, B., & Josephs, S. (2006). Leadership agility: Five levels of mastery for anticipating and initiating change. In B. Schneider & A. Josephs (Eds.), *44 Reflections* (Vol. 8, issue 1, pp. 7–12). Jossey-Bass.

Jooste, K., Frantz, J., & Waggie, F. (2018). Challenges of academic healthcare leaders in a higher education context in South Africa. *Educational Management Administration & Leadership, 46*(4), 692–708. https://doi.org/10.117/1741143216688465

Khan, N. (2017). Adaptive or transactional leadership in current higher education: A brief comparison. *International Review of Research in Open and Distance Learning, 18*(3), 178–183. https://doi.org/10.19173/irrodl.v18i3.3294

Khan, M.I., Awan, U., Yasir, M., Mohamad, N.A.B., Shah, S.H.A., Qureshi, M.I., & Zaman, K. (2014). Transformational leadership, emotional intelligence and organizational commitment: Pakistan's services sector. *Argumenta Oeconomica, 33*(2), 67–92. https://doi.org/10.15611/aoe.2014.2.04

Komotar, M. (2020). Discourses on quality and quality assurance in higher education from the perspective of global university rankings. *Quality Assurance in Education, 28*(1), 78–88. https://doi.org/10.1108/QAE-05-2019-0055

Kulati, T. (2000). Governance, leadership and institutional change in South African higher education: Grappling with instability. *Tertiary Education and Management, 6*(3), 177– 192. https://doi.org/10.1080/13583883.2000.9967022

Leithwood, K., & Jantzi, D. (2000). The effects of transformational leadership on organizational conditions and student engagement with school. *Journal of Educational Administration, 38*(2), 112–129. https://doi.org/10.1108/09578230010320064

Lemmer, Y. (2024). SA universities must shoulder some responsibility for funding challenges. *Higher Education Conference*. (p. 1). Retrieved from https://usaf.ac.za/sa-universities-must-shoulder-some-responsibility-for-funding-challenges/

Lowe, K.B., Kroeck, K.G., & Sivasubramaniam, N. (1996). Effectiveness correlates of transformational and transactional leadership: A meta-analytic review of the mlq literature. *Leadership Quarterly, 7*(3), 385–425. https://doi.org/10.1016/S1048-9843(96)90027-2

Mababu, R., & Garcia, R. (2016). Determinants of learning organisation in higher education. *International Technology, Education and Development Conference*. 2430–2437. https://doi.org/10.21125/inted.2016.1512

Mahel, T.A. (2021). Leadership competencies for the volatile, uncertain, complex and ambiguous (VUCA) environment: Challenges to higher education. *European Journal of Humanities and Educational Advancements, 2*(5), 119–138.

Mazurek, G. (2019). Transformacja cyfrowa – perspektywa instytucji szkolnictwa wyższego [Digital transformation – The perspective of higher education institutions]. In T. Woźniak (Ed.), *Transformacja akademickiego szkolnictwa wyższego w Polsce w okresie 1989-2019* (pp. 314–316).

McCluskey, F.B., & Winter, M.L. (2012). *The idea of the digital university: Ancient traditions, disruptive technologies and the battle for the soul of higher education*. Westphalia Press.

Mhlanga, D., & Moloi, T. (2020). COVID-19 and the digital transformation of education: What are we learning on 4ir in South Africa?. *Education Sciences, 10*(7), 1–11. https://doi.org/10.3390/educsci10070180

Mtshali, N. (2016). How collaboration could stretch research funding in a climate of diminishing resources. *Higher Education Conference* (1–1). Retrieved from https://usaf.ac.za/how-collaboration-could-stretch-research-funding-in-a-climate-of-diminishing-resources/

Mykhailyshyn, H., Kondur, O., & Serman, L. (2019). Innovation of education and educational innovations in conditions of modern Higher Education Institution. *Journal of Vasyl Stefanyk Precarpathian National University, 5*(1), 9–16. https://doi.org/10.15330/jpnu.5.1.9-16

Navia, J., & Nasser, T. (2022). Leadership practices among private higher education institutions: Basis for transformational leadership model. *JPAIR Multidisciplinary Research, 49*(1), 159–177. https://doi.org/10.7719/jpair.v49i1.443

Newbert, S.L. (2008). Value, rareness, competitive advantage, and performance: A conceptual- level empirical investigation of the resource-based view of the firm. *Strategic Management Journal, 29*(7), 745–768. https://doi.org/10.1002/smj.686

Ngcobo, X.M., Marimuthu, F., & Stainbank, L.J. (2024). Revenue sourcing for the financial sustainability of a university of technology: An exploratory study. *Cogent Education, 11*(1), 2295173. https://doi.org/10.1080/2331186X.2023.2295173

Novitasari, D., Supiana, N., & Asbari, M. (2021). The role of leadership in innovation performance: transactional versus transformational Style. *JIMFE (Jurnal Ilmiah Manajemen Fakultas Ekonomi), 07*(01), 28–34. https://doi.org/10.34203/jimfe.v7i1.2981

Paracha, U., Qamar, A., Mirza, A., Hassan, I., & Waqas, H. (2012). Impact of Leadership Style (Transformational & Transactional Leadership) On Employee Performance & Mediating Role of Job Satisfaction" Study of Private School (Educator) In Pakistan. *Global Journal of Management and Business Research, 12*(4), 56–57. https://www.researchgate.net/publication/322643782

Park, Y.S., Konge, L., & Artino, A.R. (2020). The positivism paradigm of research. *Academic Medicine, 95*(5), 690–694. https://doi.org/10.1097/ACM.0000000000003093

Perry-Smith, J.E., & Blum, T.C. (2000). Work-family human resource bundles and perceived organizational performance. *Academy of Management Journal, 43*(5), 1107–1117. https://doi.org/10.5465/1556339

Pham, D.X.T., Hitendra, P., & Amanda, M. (2017). Leadership styles of Vietnamese higher education leaders: Transformational, transactional, or laissez-faire. *CTU Journal of Innovation and Sustainable Development, 7*, 126–137. https://doi.org/10.22144/ctu.jen.2017.058

Prejean, E.A., Kilcoyne, M.S., Liao, W., & Parker, C. (2019). Is higher education talking and walking agile management: A review of the literature. *American International Journal of Business Management (AIJBM), 2*(7), 8–18.

Proulx, M. (2010). *Agile leadership assessment questionnaire*. Analytical Mind. Retrieved from https://danossia.wordpress.com/2010/06/29/agile-leadership-assessment-questionnaire/

Ratajczak, S. (2023). Agile leadership practices in the digital transformation of HEIs. Scientific Papers of Silesian University of Technology. Organization & Management/Zeszyty Naukowe Politechniki Śląskiej. Seria *Organizacji i Zarządzanie, 185*, 410–427.

Sanatigar, H., Hadi Peikani, M., & Gholamzadeh, D. (2017). Identifying organizational agility and leadership dimensions using Delphi technique and factor analysis. *International Journal of Public Leadership, 13*(4), 276–294. https://doi.org/10.1108/IJPL-01-2017-0005

SA news. (2023). Over one million enrolments expected in public universities. *South African Government News Agency*. Retrieved from https://SAnews.com

Seale, O. (2015). *Building leadership and management capacity for deans in South African Higher Education*. Doctorate, University of Witwatersrand.

Sekaran, U. (2003*). A skill-building approach: Research methods for business* (4th edn.). John Wiley & Sons. Retrieved from http://www.wiley.com/college

Shrivastava, M., & Shrivastava, S. (2014). Political economy of higher education: Comparing South Africa to trends in the world. *Higher Education, 67*(6), 809–822. https://doi.org/10.1007/s10734-013-9709-6

Singh, R.J. (2016). Current trends and challenges in South African higher education. *South African Journal of Higher Education, 29*(3), 1–7. https://doi.org/10.20853/29-3-494

Stobierski, T. (2020). *Business insights*. Harvard Business School. Retrieved from https://online.hbs.edu/blog/post/organizational-change-management

Subramaniam, T.S. (2021). *Examining agile leadership style on organizational performance through the mediation of organizational culture: A case study on professional bodies in Malaysia*. University of Wales Trinity Saint David.

Takeuchi, H., & Nonaka, I. (1986). *The new product development game*. Harvard Business Review.

Tan, S. (2023). Exploiting disruptive innovation in learning and teaching. In *Learning intelligence: Innovative and digital transformative learning strategies: Cultural and social engineering perspectives* (pp. 149–176). Springer Nature Singapore.

Tasopoulou, K., & Tsiotras, G. (2017). Benchmarking towards excellence in higher education. *Benchmarking: An International Journal, 24*(3), 617–634. https://doi.org/10.1108/BIJ-03-2016-0036

Tawaha, M. (2016). The impact of leadership styles on enhancing the financial performance through the strategic alignment in the Jordanian Insurance Companies. *International Journal of Academic Research in Business and Social Sciences, 6*, 116–131. https://doi.org/10.6007/IJARBSS/v6-i6/2187

Timothy, O., & Akpa, V.O. (2011). Effects of leadership style on organisational performance: A survey of selected small-scale enterprises in Ikosi-Ketu Council development area of Lagos State, Nigeria. *Australian Journal of Business and Management Research, 1*(7), 103–104.

Torchiano, M., & Jedlitschka, A. (Eds.). (2020). *Product-focused software process Improvement: 21st International Conference, PROFES 2020, Turin, Italy, November 25–27, 2020, Proceedings* (Vol. 12562). Springer Nature.

USAf. (2024). *Three-Year strategic implementation plan 2024–2026. Strategic implementation plan*, Universities South Africa.

Wahab, S., Rahmat, A., Yusof, M. S., & Mohamed, B. (2016). Organization Performance and Leadership Style: Issues in Education Service. *Procedia – Social and Behavioral Sciences, 224*, 593–598. https://doi.org/10.1016/j.sbspro.2016.05.447

Waham, M.A., Rahman, R.A., & Mustaffa, W.S.W. (2020). The effect of transformational leadership on the organizational performance in higher education institutions in Iraq. *International Business Education Journal, 13*, 74–84. https://doi.org/10.1016/j.sbspro.2016.05.447

Webb, K.S. (2009). Creating satisfied employees in Christian higher education: Research on leadership competencies. *Christian Higher Education, 8*(1), 18–31. https://doi.org/10.1080/15363750802171073