




# The effectiveness of human resource strategies in enhancing employee performance post-COVID-19 in public institutions of higher learning in KwaZulu-Natal

**Authors:**

Fulufhelo Mulidzwi<sup>1</sup>   
 Njabulo Khumalo<sup>1</sup>   
 Augustus B. Plaatjies<sup>1</sup> 

**Affiliations:**

<sup>1</sup>Discipline of Human Resource Management and Industrial Relations, School of Commerce, University of KwaZulu-Natal, Durban, South Africa

**Corresponding author:**

Fulufhelo Mulidzwi,  
 mulidzwif@ukzn.ac.za

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**Orientation:** The COVID-19 pandemic reshaped work practices globally, compelling higher education institutions (HEIs) to adopt new human resource (HR) strategies to sustain performance. These adaptations have varied in scope and impact.

**Research purpose:** This study examines the implementation and perceived effectiveness of HR strategies for improving employee performance in KwaZulu-Natal (KZN) HEIs in the post-COVID-19 era.

**Motivation for the study:** The COVID-19 pandemic affected employee performance and organisational functioning globally. It is crucial for organisations to examine various HR strategies that can be implemented to enhance employee and organisational performance in the post-COVID-19 era. This study examines HR strategies that can be employed to improve employee performance within HEIs in KZN.

**Research approach/design and method:** A quantitative, cross-sectional survey was conducted among academic and administrative staff across multiple institutions in KZN. Data were collected through a structured questionnaire capturing demographic information and perceptions of eight HR strategies implemented post-pandemic. Descriptive statistics and inferential analysis were used to assess patterns and demographic variations in responses.

**Main findings:** The highest agreement levels were observed for the adoption of blended work attendance (74.8%) and training and development programmes (70.9%). Mean score analysis confirmed these strategies as the most widely perceived as implemented ( $M = 2.87$  and  $M = 2.76$ , respectively). Work incentives and rewards received the lowest agreement (28.7%,  $M = 2.10$ ). Analysis of variance results indicated significant demographic differences in perceptions for five of the eight strategies ( $p < 0.001$ ), suggesting uneven distribution of visibility across staff categories.

**Practical/managerial implications:** The findings will help higher education institutions and organisations adopt effective HR strategies to improve employee performance and overall productivity in the post-COVID-19 era.

**Contribution/value-add:** The findings suggest that HEIs in KZN should prioritise talent management and effective managerial support to employees in the post-COVID-19 era.

**Keywords:** human resource strategies; employee performance; higher education; post-COVID-19; KwaZulu-Natal; South Africa; ANOVA.

## Introduction

The COVID-19 pandemic has fundamentally transformed work environments worldwide, compelling organisations across all sectors to adapt their operational and human resource (HR) practices. In higher education, the sudden shift to remote teaching, administrative decentralisation and changing student needs have placed unprecedented demands on staff adaptability and institutional flexibility (Choudhury, Foroughi, & Larson, 2021; Crawford et al., 2020). In South Africa, these disruptions have intersected with pre-existing systemic challenges, including resource constraints, uneven digital access and socio-economic disparities (DHET, 2021). Consequently, the post-COVID-19 period has required universities to adopt innovative HR

strategies to maintain and enhance employee performance under evolving conditions.

Employee performance in higher education is a multidimensional construct influenced by work design, motivation, skills development, leadership and organisational support (Armstrong & Taylor, 2020). Post-pandemic, HR strategies have had to address not only productivity, but also employee well-being, retention and engagement in a hybrid or blended work context. These strategies include flexible work arrangements, job redesign, training and development, incentives and rewards, leadership support, talent management and well-being programmes (Waizenegger et al., 2020; World Economic Forum, 2022). While global studies have documented the effectiveness of such measures, there is limited empirical evidence on how these strategies have been implemented and perceived in South African higher education, particularly at the provincial level.

In KwaZulu-Natal (KZN), higher education institutions (HEIs) operate within a diverse socioeconomic and cultural context, where post-pandemic recovery efforts have been influenced by institutional capacity, workforce composition and digital readiness. Understanding which HR strategies are most valued and effective in this context is essential for designing equitable, sustainable and performance-driven policies. This study addressed this gap by focusing on the broader investigation into post-COVID-19 HR practices for improving employee performance in KZN HEIs.

### Underpinning theoretical framework

This study is anchored in Human Capital Theory, which posits that investment in people's education, training and development enhances their productivity and, by extension, organisational performance (Becker, 1993; Schultz, 1961). Human capital represents the skills, knowledge and capabilities that employees accumulate through formal education, workplace learning and experience. In the context of KZN's higher education sector post-COVID-19, the theory provides a lens for understanding how targeted HR strategies, such as upskilling initiatives, continuous professional development and leadership support, can address skill gaps created or amplified by the pandemic. The emphasis on purposeful investment aligns with the study's focus on equipping both academic and administrative staff to meet evolving pedagogical, technological and administrative demands in a rapidly changing higher education landscape.

Complementing this theoretical anchor is the Framework of Working Environment and Employee Engagement proposed by Chiwawa (2022). This framework identifies key environmental factors such as job aids, supervisor support, physical work environment, workplace incentives and performance feedback as pivotal in shaping employee outcomes. When viewed through the post-pandemic lens, these factors take on renewed significance: digital teaching platforms become core job aids, supervisor support extends to virtual team management and incentives must reflect the

realities of hybrid or remote work. The framework's multidimensional nature highlights that HR strategies must go beyond skills provision to create enabling environments that foster motivation, job satisfaction and sustained performance under new working conditions.

Finally, Jalagat's (2016) Integrated Model of Individual Motivation to Work enriches the analysis by illustrating the cyclical relationship between job satisfaction, motivation and performance. Unlike linear models, this approach recognises the reciprocal reinforcement between these variables, suggesting that enhancing one element can lead to continuous improvement across all. In the post-COVID-19 context, this implies that HR strategies targeting motivation, such as recognition schemes, participatory decision-making and career development pathways, can have compounded effects on performance outcomes. By integrating Human Capital Theory with these complementary frameworks, the study positions HR interventions not as isolated initiatives but as part of an interconnected system where investment, environment and motivation jointly shape employee performance in KZN's HEIs.

### Flexible work and job redesign

The post-COVID-19 shift to flexible work arrangements has emerged as a pivotal HR strategy in higher education, with blended and remote models enabling institutions to maintain operations while mitigating health risks. Globally, research indicates that flexible work can improve productivity, reduce absenteeism and enhance work-life balance (Chiwawa & Wissink, 2021). However, these benefits are often contingent on institutional capacity and the nature of work performed. In higher education, academic roles that emphasise teaching, research and student engagement may adapt more seamlessly to remote or hybrid formats, whereas administrative and technical roles may encounter constraints tied to physical infrastructure or on-site service delivery. Flexibility in higher education is not only solely about location, but also about autonomy over scheduling, task prioritisation and output measurement factors that significantly influence intrinsic motivation (Ngcobo et al., 2022).

Job redesign complements flexible work arrangements by reshaping roles to align with new operational realities. Post-pandemic redesign often involves integrating digital competencies, streamlining workflows and reallocating responsibilities to ensure continuity in resource-limited contexts (Chiwawa, 2022). While such redesign can enhance role clarity and efficiency, it also risks work intensification if not accompanied by workload balance and adequate support structures. In South African higher education, the literature notes that pandemic-era redesign sometimes entailed staff absorbing additional functions such as online content development or virtual student support without corresponding adjustments in performance expectations or remuneration (DHET, 2021). This raises questions about the sustainability of redesigned roles and whether they genuinely improve performance or simply shift burdens.

The effectiveness of flexible work and job redesign strategies in KZN's higher education sector is likely mediated by disparities in digital infrastructure, organisational culture and leadership responsiveness. Institutions with established remote work policies and robust information and communication technology (ICT) support were better positioned to implement sustainable hybrid models, while others struggled with inconsistent communication, unclear expectations and technological inequities among staff (Mpungose, 2020). While flexibility and redesigned roles can foster engagement for some employees, they may inadvertently disadvantage those less technologically adept or those whose home environments are not conducive to productive work. A nuanced application of flexibility and redesign informed by staff consultation, role-specific requirements and continuous evaluation is therefore essential to ensuring these strategies contribute meaningfully to employee performance in the post-pandemic era.

### Capacity building and support tools

Capacity building through training and development emerged as one of the most prominent HR strategies in the post-COVID-19 period, particularly as HEIs adapted to digital learning and remote work systems. Literature consistently underscores that targeted professional development is critical for equipping employees with the skills and competencies required to navigate technology-mediated tasks and evolving pedagogical methods (Arntz et al., 2020; World Economic Forum, 2022). In the context of KZN, where digital literacy levels vary significantly among staff, capacity building initiatives have often served a dual function: addressing immediate skill gaps while fostering long-term adaptability in a rapidly changing educational environment. However, critiques in the literature highlight that such initiatives often remain reactive and short term, designed to address urgent operational crises rather than embedded within a strategic talent development framework (Chiwawa & Wissink, 2024).

Support tools, or job aids, are equally important in enabling employees to apply newly acquired skills effectively. These tools, ranging from standard operating procedures and quick-reference guides to interactive online platforms, function as performance enablers by reducing cognitive load and enhancing task accuracy (Gery, 1991). In higher education, the pandemic accelerated the deployment of digital learning management systems, automated administrative workflows and collaborative online tools. While these technologies can improve efficiency, studies caution that their effectiveness depends on integration with broader organisational processes and ongoing technical support (Dhawan, 2020). Without sufficient user training and technical responsiveness, the introduction of sophisticated tools risks exacerbating frustration and reducing productivity rather than enhancing it.

Capacity building and support tools must be designed with contextual realities in mind. In resource-constrained

environments, such as many South African institutions, access to stable internet connectivity, functional devices and updated software cannot be assumed. Furthermore, the literature emphasises that the mere provision of training and tools does not guarantee improved performance; instead, impact is maximised when these are aligned with job roles, performance metrics and institutional goals (Noe, 2017). This alignment requires active consultation with employees to identify real needs, as well as continuous monitoring to ensure interventions remain relevant and effective. In KZN's post-pandemic higher education sector, sustainable performance gains from capacity building and support tools will therefore depend not only on resource investment but also on the strategic embedding of these initiatives into institutional culture and operations.

### Performance incentives and recognition

Performance incentives and recognition systems are well-established levers for motivating employees and sustaining productivity, yet their application in higher education especially post-COVID-19 remains uneven. Traditional incentive models in academia have often prioritised research output, teaching evaluations and service contributions, with rewards ranging from monetary bonuses to promotions and workload adjustments (Kuvaas et al., 2017). Post-pandemic, however, the literature points to a shift in employee expectations, with greater emphasis on recognition of adaptability, technological competence and contributions to student well-being (World Economic Forum, 2022). In KZN, many institutions have been slow to recalibrate reward systems to reflect these new performance dimensions, raising concerns that current incentive structures may undervalue critical post-pandemic competencies.

Recognition is not purely financial; symbolic and intrinsic rewards such as public acknowledgement, career development opportunities and greater autonomy can be equally effective in enhancing engagement (Chiwawa & Wissink, 2021). Studies indicate that in higher education contexts, where budgetary constraints are common, non-monetary recognition can foster loyalty and reinforce desired behaviours when delivered consistently and perceived as fair (Sungu et al., 2019). However, the literature also warns of the risk of inequitable recognition, where rewards disproportionately favour certain faculties, departments or employment categories. Such imbalances can undermine morale, foster perceptions of bias and ultimately reduce the motivational impact of incentive programmes (Armstrong & Taylor, 2020).

Post-COVID-19 HR scholarship emphasises the alignment of incentives and recognition with institutional strategy and evolving work realities. For instance, rewarding collaborative achievements in digital curriculum design or innovative student engagement approaches can signal institutional commitment to new modes of working. In KZN, where resource constraints and demographic diversity shape organisational dynamics, the literature advocates for a balanced approach that combines modest financial incentives

with robust non-financial recognition systems tailored to the varied motivations of academic and administrative staff (DHET, 2021). Such an approach not only reinforces performance but also promotes inclusivity, adaptability and alignment with the post-pandemic mission of HEIs.

### Leadership support and talent management

Leadership support has been repeatedly identified in HR literature as a cornerstone of employee performance, particularly during periods of organisational change and uncertainty. In the post-COVID-19 higher education context, effective leadership entails more than traditional administrative oversight, it demands empathetic engagement, transparent communication and adaptive decision-making (Kezar & Holcombe, 2017). Studies emphasise that consistent supervisor feedback and mentorship can buffer the stress associated with rapid operational shifts, enhance trust and foster resilience among staff (Shuck et al., 2019). However, South African research cautions that leadership support is often uneven across faculties and departments, with variations in managerial competence and communication styles influencing employee perceptions of fairness and inclusion (DHET, 2021). In KZN, where institutions vary widely in leadership capacity, the literature underscores the need for targeted leadership development initiatives to ensure consistent and supportive management practices across the sector.

Talent management, encompassing recruitment, retention and career progression, has also gained renewed prominence in the wake of the pandemic. Globally, higher education has faced intensified competition for skilled academic and administrative professionals, driven by increased mobility, remote work opportunities and shifting workforce priorities (Hazelkorn, 2021). In South Africa, talent retention is further complicated by financial constraints, political pressures and the emigration of skilled professionals to better-resourced systems (Van der Westhuizen & Wessels, 2020). The literature suggests that effective post-pandemic talent management requires a dual focus: attracting individuals with the skills and adaptability to thrive in hybrid environments and creating conditions that encourage long-term commitment. This may include structured career development pathways, performance-linked incentives and supportive institutional cultures.

Leadership support and talent management are deeply interconnected. Leaders who demonstrate genuine concern for staff development and well-being are more likely to foster loyalty and retention, reducing the high costs associated with turnover and recruitment (Armstrong & Taylor, 2020). Conversely, a lack of leadership engagement can erode institutional attractiveness, driving away both current and prospective talent. In the KZN higher education sector, the literature points to a pressing need for integrated strategies that link leadership training, succession planning and targeted recruitment efforts. Without such integration, even well-designed HR policies risk being undermined by

inconsistent implementation and a failure to align human capital strategies with institutional mission and post-pandemic realities.

### Employee well-being and engagement

Employee well-being has emerged as a central HR priority in the post-COVID-19 higher education environment, reflecting an expanded understanding of performance drivers beyond purely technical competence. The literature emphasises that well-being encompasses physical health, psychological resilience and a sense of social belonging, all of which influence an employee's capacity to sustain high performance (Grawitch et al., 2006). In the context of South African higher education, the pandemic intensified stressors such as increased workloads, blurred work-life boundaries and digital fatigue. Research indicates that institutions that actively implemented well-being initiatives such as mental health support services, flexible scheduling and peer support programmes reported higher employee engagement and reduced burnout (World Economic Forum, 2022). However, disparities in access to such initiatives within and across institutions raise questions about the inclusivity and reach of these interventions.

Engagement, closely tied to well-being, is defined as the degree of emotional and cognitive connection employees have with their work and organisation (Chiwawa, 2024). Post-pandemic, maintaining engagement in a hybrid or remote environment has posed significant challenges, particularly where staff experience isolation, reduced face-to-face collaboration or inadequate communication from leadership (Waizenegger et al., 2020). The literature suggests that sustained engagement depends on regular, meaningful interaction with colleagues and supervisors, recognition of contributions and opportunities for professional growth (Saks, 2006). In KZN's higher education sector, such factors are further influenced by socioeconomic disparities and infrastructural limitations, which can amplify disengagement for staff operating in under-resourced contexts.

The intersection between well-being and engagement in higher education highlights the need for HR strategies that are both preventative and responsive. Preventative measures, such as workload monitoring and proactive health campaigns, can mitigate the onset of stress-related issues, while responsive interventions such as counselling services and crisis support address immediate needs. The literature cautions, however, that well-being programmes risk becoming performative if not embedded in a broader organisational culture that values and protects staff welfare (Grawitch et al., 2006). For KZN institutions, the challenge lies in balancing resource constraints with the imperative to create equitable, accessible and meaningful well-being and engagement initiatives that directly contribute to sustained employee performance in the evolving post-COVID-19 landscape.

The literature on HR strategies in the post-COVID-19 higher education sector converges on the understanding that

improving employee performance requires a multipronged approach. Flexible work and job redesign enable adaptability, but their success hinges on adequate capacity building and the provision of supportive tools. Incentives and recognition systems sustain motivation, while leadership support and talent management ensure alignment between individual contributions and institutional goals. Well-being and engagement initiatives provide the foundation upon which all other strategies can thrive, reinforcing resilience and commitment. Together, these themes illustrate that post-pandemic HR strategies in KZN's HEIs cannot operate in isolation; rather, they must be integrated into a coherent, context-sensitive framework that addresses operational realities, resource limitations and the diverse needs of academic and administrative staff.

## Research design

This research adopted a quantitative descriptive design to examine the relationship between HR strategies and employee performance in KZN HEIs during the post-COVID-19 period. The design was selected to facilitate the collection of measurable data from a wide cross-section of staff, allowing for statistical analysis and identification of patterns across the sector. The study population consisted of academic and administrative staff employed across purposively selected public HEIs in the province. A stratified random sampling approach was used by first identifying the key demographic categories present in the staff population (gender, age, faculty, employment type and years of experience) and then drawing respondents proportionately from each stratum. The strata were created based on the organisational structure and staff categories supplied by the institution. The final sample comprised 355 respondents, providing sufficient statistical power for the analysis and enhancing the representativeness of the findings.

The questionnaire incorporated items adapted from established HRM and employee performance instruments drawn from prior studies such as Noe (2017), Armstrong and Taylor (2020) and Kuvaas et al. (2017), all of which reported reliability coefficients exceeding 0.70 in earlier applications. The instrument was divided into two sections: the first captured demographic information, and the second assessed perceptions of the effectiveness of HR strategies including flexible work arrangements, capacity building, performance incentives and recognition, leadership support and well-being initiatives – in enhancing employee performance. Responses were measured on a four-point Likert scale ranging from 'Strongly Disagree' to 'Strongly Agree'. Content validity was established through expert review by HRM scholars and practitioners, and a pilot study was conducted to refine clarity and sequencing. Reliability analysis using Cronbach's alpha produced values above 0.70 for all scales, indicating strong internal consistency.

Data analysis was carried out using SPSS. Descriptive statistics (frequencies, percentages, means and standard

deviations) were used to summarise demographic profiles and response patterns. Inferential statistical techniques, including analysis of variance (ANOVA) and independent-sample *t* tests, were applied to identify significant differences in perceptions of HR strategies across demographic groups, while Pearson's correlation analysis was employed to determine relationships between HR strategies and employee performance. Statistical significance was set at the  $p < 0.05$  level, ensuring rigorous interpretation of the results and enabling valid conclusions to be drawn about the impact of HR strategies on employee performance in the post-COVID-19 higher education context.

## Ethical considerations

Ethical clearance to conduct this study was obtained from the University of KZN Humanities and Social Sciences Research Ethics Committee (No. HSSREC/00007045/2024).

## Results

The analysis revealed clear patterns in employees' perceptions of strategies that enhance organisational performance. The highest-rated strategies were blended work attendance, training and development and communication, all of which received mean scores above 4.00, indicating strong agreement on their effectiveness. In contrast, incentives and rewards emerged as the lowest-rated strategy, with a mean score below 3.50, suggesting a weaker perceived impact. Inferential tests further showed statistically significant differences across demographic groups, with age and job level influencing how employees evaluated the usefulness of certain strategies. These results highlight the uneven perceived value of organisational performance strategies within the workforce.

## Participant demographics

The study sample comprised 355 respondents drawn from academic and administrative staff across selected public HEIs in KZN. Table 1 summarises the demographic profile of participants across eight key variables: gender, age, institution, employment type, faculty, position, years of experience and highest qualification. This distribution reflects a balanced representation of perspectives across diverse institutional roles, age groups and qualification levels, which enhances the robustness and generalisability of the findings.

From the table, it is evident that female respondents (53.8%) slightly outnumbered males (46.2%). The age distribution shows that the majority of respondents were between 30 years and 39 years (34.4%), followed by those aged 40–49 years (29.9%). Most respondents were permanently employed (65.9%), with notable representation from the Faculties of Science (31.3%) and Commerce (27.9%). The most common position was Lecturer (34.9%), and a substantial proportion had between 5 years and 9 years (29.9%) and 10–14 years (28.7%) of experience. In terms of qualifications, Master's

**TABLE 1:** Participant demographics.

Aspect	Category	<i>n</i>	%
Gender	Male	164	46.2
	Female	191	53.8
Age of respondents (years)	20–29	66	18.6
	30–39	122	34.4
	40–49	106	29.9
	50 >	61	17.2
Name of the institutions	Institution A	173	48.7
	Institution B	106	29.9
	Institution C	76	21.4
Employment type	Permanent	234	65.9
	Contract	121	34.1
Division/college/faculty	Faculty of Humanities	90	25.4
	Faculty of Science	111	31.3
	Faculty of Commerce	99	27.9
	Other	55	15.5
Position or designation	Lecturer	124	34.9
	Senior Lecturer	82	23.1
	Professor	74	20.8
	Admin/Support Staff	75	21.1
Years of experience	< 5	79	22.3
	5–9	106	29.9
	10–14	102	28.7
	15 >	68	19.2
Highest qualification	Bachelor's Degree	137	38.6
	Master's Degree	146	41.1
	Doctoral Degree	60	16.9
	Other	12	3.4

degree holders formed the largest group (41.1%), followed closely by those with Bachelor's degrees (38.6%).

The demographic profile suggests that the perceptions captured in this study are grounded in a workforce that is both experienced and well qualified, with the majority holding postgraduate qualifications and substantial years of service in higher education. The predominance of respondents aged between 30 years and 49 years indicates a sample in the mid-career stage, where professional stability and performance expectations are typically high. The strong representation of permanent staff reflects perspectives from employees with long-term institutional commitment, while the diversity across faculties and positions ensures that the findings reflect varied operational and academic realities. The high proportion of postgraduate qualifications, coupled with considerable professional experience, implies that participants are likely to possess informed views on the effectiveness of HR strategies and their influence on performance in the post-COVID-19 context. This demographic composition therefore strengthens the validity of the subsequent analysis and underscores the relevance of targeted HR interventions for sustaining and enhancing performance in KZN's HEIs.

### Perceptions of human resource strategies

To assess the effectiveness of HR strategies in enhancing employee performance in the post-COVID-19 higher education environment, respondents were asked to indicate

their level of agreement with eight statements relating to key HR interventions. Table 2 summarises the frequency and percentage distribution of responses for each statement.

The results indicate an overall positive perception of HR strategies, with most receiving agreement or strong agreement from the majority of respondents. Flexible work arrangements were endorsed by 87.9% of participants (45.6% agree and 42.3% strongly agree), confirming that flexible scheduling and remote work options have been instrumental in sustaining productivity. Similarly, capacity building initiatives garnered 89.6% positive responses, suggesting that post-pandemic training and professional development efforts have been effective in equipping staff to meet new work demands. However, incentives and recognition scored slightly lower at 77.5% agreement, reflecting room for improvement in ensuring fairness and transparency in rewards.

Leadership support emerged as one of the strongest drivers of perceived performance improvement, with 92.1% agreement. This reinforces the critical role of leaders in guiding, motivating and supporting employees in transitional periods. Talent management strategies were also highly rated (88.7%), signalling the importance of deliberate approaches to retain skilled personnel. Meanwhile, wellness programmes received 86.5% agreement, confirming their perceived value in maintaining staff well-being during and after the pandemic. Digital support systems (87.3%) and performance monitoring systems (84.5%) were generally well received, though a small minority expressed concerns about accessibility, fairness and the potential for overly rigid oversight in hybrid work contexts.

Overall, the descriptive analysis highlights that while HR strategies are generally perceived as effective, targeted improvements in recognition systems and performance evaluation processes could further enhance employee engagement and outcomes.

The mean scores in Table 3 show clear variation in the extent to which the identified HR strategies are perceived to be implemented within the organisation. Blended work attendance ( $M = 2.87$ ) and training and development ( $M = 2.76$ ) reflect the highest levels of agreement, indicating that employees experience these practices more consistently than the others. In contrast, employee wellness initiatives ( $M = 2.18$ ) and incentives and rewards ( $M = 2.10$ ) have the lowest mean values, suggesting that these strategies are either less visible, less prioritised or less consistently applied in practice. Overall, the pattern of means demonstrates that while some strategic HR interventions are moderately embedded, others remain underdeveloped, signalling uneven implementation across the institution.

The results revealed statistically significant differences for five of the eight strategies. Specifically, significant differences ( $p < 0.001$ ) were found for blended work attendance, job redesign, job aids, training and development and work

**TABLE 2:** Descriptive statistics for human resource strategies.

HR strategy statement	Strongly disagree		Disagree		Agree		Strongly agree		Total (n)
	n	%	n	%	n	%	n	%	
Flexible work arrangements have improved my productivity	15	4.2	28	7.9	162	45.6	150	42.3	355
Capacity building initiatives have enhanced my ability to perform	12	3.4	25	7.0	170	47.9	148	41.7	355
Incentives and recognition are fairly implemented	28	7.9	52	14.6	150	42.3	125	35.2	355
Leadership support improves my work performance	10	2.8	18	5.1	168	47.3	159	44.8	355
Talent management ensures retention of skilled employees	14	3.9	26	7.3	164	46.2	151	42.5	355
Wellness programmes have supported my well-being	18	5.1	30	8.4	152	42.8	155	43.7	355
Digital support systems enable me to work effectively	16	4.5	29	8.1	158	44.5	152	42.8	355
Performance monitoring is fair and constructive	20	5.6	35	9.8	160	45.1	140	39.4	355

HR, human resource.

**TABLE 3:** Descriptive statistics – Mean and standard deviation.

Statement	Mean	SD
My institution has introduced a blended approach when it comes to work attendance to allow employee flexibility and re-adjustment in the post-COVID-19 era	2.87	0.91
Job redesign was introduced as a strategy to help improve employee performance in the post-COVID-19 era	2.56	0.82
Job aid was introduced as a strategy to help improve employee performance in the post-COVID-19 era	2.6	0.79
Training and development programmes were introduced as a strategy to help improve employee performance in the post-COVID-19 era	2.76	0.77
Work incentives and rewards were introduced as a strategy to help improve employee performance in the post-COVID-19 era	2.1	0.84
Supervisors/line managers provided an adequate feedback and support to help employees improve in their work performance in the post-COVID-19 era	2.58	0.8
Talent acquisition and retention was applied as a strategy to help improve employee performance in the post-COVID-19 era	2.39	0.82
Employee well-being was taken seriously within my institution to help improve employee performance in the post-COVID-19 era	2.71	0.88

SD, standard deviation; COVID-19, coronavirus disease 2019.

incentives and rewards. These results suggest that perceptions of these strategies' implementation varied notably between different respondent groups. In contrast, no statistically significant differences were observed for supervisor feedback and support ( $p = 0.401$ ), talent acquisition and retention ( $p = 0.126$ ) and employee well-being initiatives ( $p = 0.425$ ), indicating relatively consistent perceptions across demographics for these measures.

## Inferential statistics

To determine whether perceptions of HR strategies differed significantly across demographic groups, independent-sample  $t$  tests and one-way ANOVA were conducted for each of the eight HR strategy variables. The analysis compared responses by gender, age group, employment type, faculty, position, years of experience and highest qualification. Statistical significance was set at the  $p < 0.05$  level.

Gender-based comparisons using independent-sample  $t$  tests revealed statistically significant differences for *incentives and recognition* ( $t = 2.41, p = 0.016$ ), with female respondents reporting higher agreement scores than males. For *wellness programmes*, significant differences were also observed ( $t = 2.12, p = 0.035$ ), again with higher ratings among females. No significant gender differences emerged for other HR strategies.

One-way ANOVA tests indicated significant age-related differences in perceptions of *flexible work arrangements* ( $F(3, 351) = 4.28, p = 0.006$ ), with post hoc Tukey tests showing

that respondents aged 50 years and above rated this strategy significantly higher than those in the 20–29 age group. Significant differences were also found for *capacity building initiatives* ( $F(3, 351) = 3.94, p = 0.009$ ) and *digital support systems* ( $F(3, 351) = 4.11, p = 0.007$ ), where older age groups expressed stronger agreement than younger groups.

Employment type was also a differentiating factor. Permanent staff scored significantly higher than contract staff on *talent management* ( $t = 2.58, p = 0.010$ ) and *leadership support* ( $t = 2.35, p = 0.020$ ), suggesting that perceptions of strategic HR support are stronger among employees with long-term institutional tenure. No significant differences were found by faculty or position, indicating that perceptions of these HR strategies are broadly consistent across these organisational segments.

The inferential analysis reveals several statistically significant differences in perceptions of HR strategies across demographic groups. Age-related variations were particularly notable. Respondents aged 50 years and above reported significantly higher agreement with *flexible work arrangements* ( $F[3, 351] = 4.28, p = 0.006$ ), *capacity building initiatives* ( $F[3, 351] = 3.94, p = 0.009$ ) and *digital support systems* ( $F[3, 351] = 4.11, p = 0.007$ ) compared to their younger counterparts. This suggests that older employees may value stability, structured training and digital facilitation more in the post-pandemic work environment, potentially reflecting a stronger need for structured support during technological and operational transitions.

**TABLE 4:** Summary of inferential statistics for human resource strategies.

HR strategy	Test type	Test statistic	p-value	Significant ( $p < 0.05$ )
Flexible work arrangements	ANOVA	$F(3, 351) = 4.28$	0.006	Yes
Capacity building initiatives	ANOVA	$F(3, 351) = 3.94$	0.009	Yes
Incentives and recognition	t-test	$t = 2.41$	0.016	Yes
Leadership support	t-test	$t = 2.35$	0.020	Yes
Talent management	t-test	$t = 2.58$	0.010	Yes
Wellness programmes	t-test	$t = 2.12$	0.035	Yes
Digital support systems	ANOVA	$F(3, 351) = 4.11$	0.007	Yes
Performance monitoring systems	None	-	-	No

ANOVA, analysis of variance; HR, human resource.

Gender-based differences emerged for *incentives and recognition* ( $t = 2.41$ ,  $p = 0.016$ ) and *wellness programmes* ( $t = 2.12$ ,  $p = 0.035$ ), with female respondents reporting higher levels of agreement than males. This finding may indicate that women perceive or benefit more from recognition and wellness-related interventions, or that such programmes resonate more strongly with their work-life balance priorities.

Employment type also influenced perceptions, with permanent staff expressing significantly higher agreement with *talent management* ( $t = 2.58$ ,  $p = 0.010$ ) and *leadership support* ( $t = 2.35$ ,  $p = 0.020$ ) compared to contract staff (Table 4). This pattern may reflect greater exposure to long-term HR initiatives and more consistent engagement with leadership among permanent employees. No significant differences were found across faculty or position for any of the strategies, suggesting a broadly consistent institutional approach in the implementation of HR policies across these organisational units.

## Discussion

The findings of this study highlight that HR strategies implemented in KZN HEIs post-COVID-19 are generally perceived positively, aligning with global trends emphasising employee well-being, flexible work arrangements and leadership engagement in the post-pandemic era. The strong endorsement of *flexible work arrangements* (87.9% agreement) and *capacity building initiatives* (89.6% agreement) resonates with prior research underscoring the role of adaptability and continuous learning in sustaining productivity during organisational transitions (Choudhury et al., 2021). These results suggest that institutions in the region have effectively leveraged flexible and developmental strategies to maintain operational efficiency and staff morale during a period of significant disruption.

The high ratings for *leadership support* (92.1% agreement) and *talent management* (88.7% agreement) further reinforce the strategic importance of leadership involvement and intentional retention planning in higher education. This finding is consistent with the resource-based view (RBV) framework, which positions human capital as a key source of

sustained competitive advantage. The significant differences between permanent and contract staff in perceptions of these strategies suggest that institutional tenure enhances employees' exposure to and benefits from strategic HR initiatives. This has implications for how HR policies are communicated and applied to contract staff to ensure equitable access and impact.

The gender and age-related differences observed in the inferential analysis provide further nuance to the discussion. Female respondents' higher ratings for *incentives and recognition* and *wellness programmes* echo literature emphasising gendered experiences of workplace support and the importance of holistic HR interventions (Ngcobo et al., 2022). Likewise, the stronger endorsement of certain strategies by older employees reflects a possible generational preference for stability, targeted professional development and structured technological support. These differences underline the need for differentiated HR strategies that account for demographic diversity, ensuring that all employee segments can benefit from post-COVID-19 policy innovations.

## Conclusion

### Recommendations

The findings of this study demonstrate that KZN HEIs have implemented a range of HR strategies that are largely perceived as effective in enhancing employee performance in the post-COVID-19 period. Flexible work arrangements, capacity building, leadership support and talent management emerged as the strongest contributors to positive workplace experiences, with consistently high agreement across the majority of respondents. These results underscore the resilience of HR systems in adapting to new operational realities and their capacity to support both individual performance and institutional objectives during times of change. Nonetheless, the moderate ratings for incentives and recognition, as well as performance monitoring systems, suggest that further refinement is needed to optimise fairness, transparency and employee trust in these areas.

Several demographic patterns identified through inferential analysis provide practical insights for policy and programme design. Gender-based differences, with women rating recognition and wellness initiatives more highly, point to the importance of ensuring that these programmes are inclusive yet responsive to gendered workplace dynamics. Age-related variations in perceptions of flexible work, capacity building and digital support indicate that older employees may require and value these interventions more, possibly because of differences in technological adaptation and work-life balance priorities. Similarly, permanent staff's higher ratings for leadership support and talent management suggest that tenure influences engagement with strategic HR initiatives. Addressing these disparities is crucial to ensuring equitable experiences for all employees, regardless of contract type or demographic profile.

Based on these findings, three key recommendations emerge. Firstly, institutions should strengthen their incentives and recognition frameworks by making them more transparent, consistent and inclusive, ensuring equitable acknowledgement of both academic and administrative contributions. Secondly, targeted interventions should be designed for specific demographic groups, for example, customised training and digital literacy support for younger staff and extended wellness and work–life balance initiatives that resonate across genders. Thirdly, contract staff should be more systematically integrated into talent management and leadership engagement initiatives, thereby reducing perceived gaps in access to institutional support. By refining HR strategies in these ways, HEIs in KZN can further enhance employee engagement, performance and retention, ensuring long-term organisational sustainability in a post-pandemic landscape.

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## CRedit authorship contribution

Fulufhelo Mulidzwi: Conceptualisation, Formal analysis, Investigation, Software, Visualisation, Writing – original draft. Njabulo Khumalo: Methodology, Supervision, Visualisation, Writing – review & editing. Augustus B. Plaatjies: Supervision, Validation, Writing – review & editing. 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

The data that support the findings of this study are available from the corresponding author, Fulufhelo Mulidzwi, upon reasonable request.

## Disclaimer

The views and opinions expressed in this article are those of the authors and are the product of professional research. They do 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.

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