Journal of Psychology in Africa, 2026
Vol. 36, No. 2, 161–170, http://doi.org/10.32604/jpa.2026.073305

Empowered to excel: Developing and validating an employee empowerment scale for universities

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Received: 15 September 2025; Accepted: 03 February 2026; Published: 29 April 2026

Abstract: This study tested the internal reliability and validity of a 28-item Employee Empowerment scale within a higher education context. A sample of 452 university employees (N = 452) from a South African higher education institution, comprising academics (46%), administrative staff (33%), and professional and managerial staff (21%), participated in the study. The participants were required to complete an employee empowerment questionnaire. The exploratory factor analysis and confirmatory factor analysis identified a three-construct measurement model for employee empowerment: management support, autonomy and decision-making, and access to information and resources. The results revealed that the research instrument was reliable for measuring employee empowerment at a higher education institution. The study adds to the existing body of knowledge of employee empowerment within the higher education environment.

Keywords: employee empowerment; autonomy and decision-making; management support; access to information and resources; higher education institution

Introduction

Employee empowerment involves granting staff authority, responsibility, and access to resources, while also involving them in decision-making and problem-solving (Abuhashesh et al., 2019). It enables employees to think independently, act decisively, and utilise their skills to contribute meaningfully to organisational objectives (Angelovska et al., 2018). In higher education, empowerment fosters shared decision-making, cultivates a sense of value and ownership, and nurtures a culture of trust and teamwork (Ibua, 2017). Conversely, its absence restricts initiative, autonomy, and responsibility, limiting responsiveness to institutional and market challenges and stifling innovation (Luoh et al., 2014).

Given the reliance of higher education institutions on highly skilled academic and professional staff, empowerment is more than a human resources initiative; it is a strategic imperative. Universities depend on innovation, academic freedom, and collaborative knowledge work, and empowered employees are critical drivers of institutional quality, transformation, and sustainability. Creating an environment in which staff feel valued, supported, and able to influence decisions enhances creativity, engagement, and commitment, ultimately benefiting teaching, research, and community engagement (Tsaur et al., 2019; Murray & Holmes, 2021). Empowering staff is therefore essential not only for employee well-being but also for institutional resilience, adaptability, and effectiveness in an evolving higher education landscape. Consequently, the development and validation of a context-specific employee empowerment measurement instrument is critical to accurately assess empowerment levels and guide interventions that enhance staff performance and institutional success.

Empowerment in higher education

The core dimensions of empowerment in higher education include autonomy and decision-making, access to information and resources, and management support. Empowered leadership, characterised by delegation, open communication, and the promotion of independent decision-making, has proven essential in navigating challenges such as the COVID-19 pandemic, digitalization, and other unforeseen institutional crises (Martinkienė et al., 2021).

Research consistently demonstrates that employee empowerment produces significant organisational benefits. Leaders who empower employees create an environment that fosters innovation, integrity, respect, and active participation in problem-solving (Zaraket et al., 2018; Qatawneh, 2023). Empowered staff exhibit higher job satisfaction, increased innovation, self-efficacy, and improved performance (Khaliq et al., 2020; Cheong et al., 2019; Soliman, 2020; Al Zeer et al., 2023). Empowerment allows universities to respond effectively to teaching and research challenges, enhances institutional performance, and supports adaptation to digital and market-driven changes (Ibua, 2017; Amoozegar et al., 2025). Studies further indicate that providing autonomy, resources, flexibility, and managerial support contributes to organisational performance and sustainable institutional success (Kariuki & Kiambati, 2017; Alshemmari, 2023). A lack of empowerment is also linked to rising faculty burnout and disengagement, which negatively affect teaching quality, student engagement, and learning outcomes (Amoozegar et al., 2025).

Technology-led changes

Rapid advancement in technology and the development of online learning have significantly impacted the operational and academic demands placed on higher education institutions. The COVID-19 pandemic has accelerated the use of technology, driving universities to quickly adopt learning management systems, online assessment tools and various digital platforms (Bygstad et al., 2022).

Changes in the educational landscape and continuous improvement in technology can lead to distance education institutions striving hard to keep up with the changes and meet student needs. To meet students' needs, leaders in distance education institutions must empower university staff to align with the institution's mission and goals. Institutions should invest in developmental opportunities for staff so that improvements can be made to distance education programmes (Arenas et al., 2009). Ongoing training and development are crucial for equipping academics with the skills necessary to effectively integrate technology into teaching and learning. Development opportunities should focus on digital pedagogy, curriculum redesign and online assessment tools (Ličen & Prosen, 2024). A systematic review of digital competence research revealed that digital literacy development, when supported by professional development initiatives, enhances teaching practices, assessment quality, and student engagement (Zhao et al., 2021). Overall, the literature suggests that developmental opportunities are a way of empowering staff to respond to the changing demands of a digitally enabled higher education context.

Measurement of employee empowerment

The concept of employee empowerment has evolved over time, beginning with early studies that emphasised granting employees autonomy and involving them in decision-making processes to achieve organisational goals (Kumar & Kumar, 2017).

Employee empowerment has been conceptualised from a psychological and contextual perspective. Menon (1995) expressed empowerment as a psychological state rather than a managerial practice. Empowerment was conceptualised in three cognitive dimensions: perceived control, perceived competence and goal internalisation. These dimensions were examined in Menon's doctoral research where the measurement validity was established through rigorous scale development procedures. Menon (2001) later refined the three-dimension framework to a nine-item empowerment scale focusing on the assessment of an individual's sense of power, capability, and alignment within their professional role.

Herrenkohl et al. (1999) conceptualised employee empowerment from an organisational and environmental perspective that enables employees to take initiative, responsibility, and action to improve work processes. They developed a multidimensional empowerment measure and identified key contextual dimensions related to decision-making authority, responsibility for quality and problem-solving, teamwork, and recognition systems. Their findings revealed that fair recognition practices and authority over work processes were significant in distinguishing empowered from less empowered workgroups. The study positions empowerment as a structural phenomenon rooted in organisational systems.

Based on literature and the specific context of higher education three dimensions of employee empowerment were identified in this study: (1) management support, (2) autonomy and decision-making, and (3) access to information and resources. **Management support** in terms of empowerment involves motivating staff, recognizing their contributions, sharing relevant information, demonstrating concern, and ensuring that employees receive training to perform their tasks effectively. Kanter (1989) identified support and growth opportunities as a source of structural empowerment that influences employees' attitudes at work. Researchers have associated practices such as information sharing, skill development, support, and accountability with empowerment (Dahou & Hacini, 2018).

According to Echebiri et al. (2020), structural and psychological empowerment have a direct positive association with employee-driven innovation. Employee-driven innovation can, however, only happen if managers empower employees to generate ideas and participate in their development and implementation. Employee empowerment depends on the support of management; it is expected that supervisors will regularly observe an employee's performance, consult employees on their performance, and provide support on how to improve performance (Baird et al., 2018). Studies by Albrecht and Andreetta (2011) and Baird et al. (2018) revealed that leaders who empower employees through reallocating decision-making powers significantly influence employee engagement. The study by Zhang et al., (2018) indicated that leaders need to emphasise the significance of tasks, encourage participation in the workplace, and have trust in the abilities of their employees. This will lead to positive self-evaluation and greater creativity in the workplace.

Autonomy signifies trust in employees' abilities, enabling them to carry out tasks in a preferred manner (Shobe, 2018). Participation in decision-making enables employees to contribute insights that can improve both problem resolution and organisational effectiveness. Employees will no longer need their managers' approval if they can make their own decisions (Huq, 2015). Autonomy involves supervisors ensuring that employees receive the relevant information and clear performance expectations (Baird et al., 2020). A study by Sherehiy and Karwowski (2014) found that autonomy contributed to workforce agility. This is especially important for higher education institutions operating in an online environment. According to Muduli (2017), managers should establish a work environment that encourages autonomy, accountability, and flexibility. The empowerment of academics is therefore equally pivotal to the growth of higher education institutions. Andika and Darmanto (2020) indicated that autonomy and intrinsic motivation lead to greater organisational commitment and performance.

According to Dahou and Hacini (2018), decision-making powers lead to effective empowerment. Managers allocating decision-making powers to employees enable them to take control of their work and help influence the direction of the organisation (Baird et al., 2020). Malik et al. (2021) noted that granting employees decision-making powers and opportunities to share their ideas fosters teamwork and makes employees feel valued in the workplace.

Access to information and resources is a prerequisite for effective job performance. Access to information encompasses knowledge of organisational goals and strategies, while access to resources includes the provision of materials, time, space, and funds necessary to complete

Table 1. Employee empowerment constructs

Previous study	Employee empowerment construct identified
Short and Rinehart (1992)	Decision-Making, Professional Growth, Status, Self-Efficacy, Autonomy, Impact
Kanter (1993) → Laschinger et al. (CWEQ-II, 2001)	Opportunity, Information, Support, Resources, Formal Power, Informal Power
Spreitzer (1995)	Opportunity, Information, Support, Resources, Formal Power, Informal Power
Menon (1995)	Perceived control, perceived competence, and goal internalisation
Herrenkohl et al. (1999)	Contextual dimensions related to decision-making authority, responsibility for quality and problem-solving, teamwork, and recognition systems
Menon (2001) (extended study)	Sense of power, capability, alignment with professional role
Saleem et al. (2017)	Decision-Making, Professional Growth, Status, Self-Efficacy, Autonomy, Impact
Zhang et al. (2018)	Enhancing the meaningfulness of work, fostering participation in decision-making, expressing confidence in high performance, and providing autonomy from bureaucratic constraints
Connolly et al. (2018)	Meaning, competence, self-determination, impact, opportunity, information, support, formal power, informal power
Amor et al. (2020)	Opportunity, information, resources, support
This study (2023)	Autonomy and decision-making, management support, access to information, and resources

tasks (Spreitzer, 1996). Research indicates that information sharing is a key driver of overall job satisfaction when employees are empowered (Ntwiga et al., 2021). Similarly, Alshemmari (2023) found that empowerment, through the provision of adequate resources, enhances employee performance. Fernandez and Rainey (2006) argue that providing employees with relevant information on organisational performance enables them to enhance their job effectiveness. This information also enables employees to assess whether they are making progress toward achieving their goals. Additionally, Demircioglu (2017) emphasises that performance-related information enables employees to identify opportunities for implementing innovative practices within their roles. Dahou and Hacini (2018) further emphasise that employee growth depends on the organisation's provision of support and access to essential information and resources.

Table 1 provides a summary of the employee empowerment constructs identified by various studies.

The South African context

In South Africa, pervasive demoralisation among academics has been identified as a key factor threatening universities' ability to fulfill their multiple mandates—teaching, research, social transformation, and community engagement. Without empowerment practices that ensure autonomy, access to information, managerial support, fair workload, and well-being, universities struggle to deliver quality education and research, and to respond effectively to evolving demands such as increasing student numbers, digital transformation, and market expectations. Frequent industrial action and labour unrest, driven by low pay, poor working conditions, and exclusion from decision-making, further highlight the critical importance of empowering employees in higher education institutions (Van Staden, 2024).

Goals of the study

The study sought to develop and validate the internal reliability and validity of an instrument designed to measure employee empowerment within a South African higher education institution. Although several instruments already exist to measure empowerment, this study elected to develop a new scale for the following reasons:

- Existing empowerment instruments do not reflect recent changes in higher education, such as increased digitalisation, participatory governance, shared leadership, voice in institutional decision-making, and new management practices. A new questionnaire can capture the unique structures, cultures, and autonomy requirements of Higher Education Institutions (HEIs) that influence empowerment.
- Most of the existing instruments were developed in different countries or cultural contexts. Developing a contextually relevant questionnaire ensures cultural appropriateness, especially for South African higher education institutions.
- Previous instruments may have been based on a single theoretical perspective. A new questionnaire can integrate insights from multiple theories, providing a richer and more robust understanding of empowerment, especially in higher education institutions.
- A new validated instrument can provide institution-specific data that informs targeted HR interventions, professional development, or policy changes to effectively promote empowerment.

The following research objective guided this study: To determine the key factors affecting employee empowerment at HEIs and the internal reliability and validity of a self-developed 28-item Employee Empowerment scale within a higher education context.

Method

Participants and setting

The participants consisted of 452 of 5471 employees in a HEI in South Africa. The sample consisted of 38.3% males and 61.7% females. The largest age group was 46–55 years (35.6%), followed by 36–45 years (24.6%), 50–65

years (21.0%), 26–35 years (18.6%), and 25 years and younger (0.2%). In terms of qualifications, 27.4% held a Master's degree, 26.3% a doctoral/PhD degree, 16.5% an honors degree, 13.4% a bachelor's degree, 10.2% a certificate or diploma, 5.3% matric, and 0.8% reported other qualifications. Regarding job tenure, 43.95% had been employed for more than 11 years, 34.08% for 6–10 years, 20.40% for 1–5 years, and 1.57% for less than one year. Concerning job level, 46.0% were academic staff, 32.3% administrative employees, and 17.9% managers. Missing demographic data accounted for 2.5% of responses, which did not affect the analysis or introduce bias.

Measurement

In this study, the researcher developed the Employee Empowerment Scale to specifically address the objectives of this study. A review of existing theory and concepts was conducted to identify key dimensions in employee empowerment. The questionnaire was designed to gain employees' perceptions of employee empowerment. The items of the questionnaire were guided by the research questions and developed in line with the literature review. A structured questionnaire containing closed-ended response items was used for this study. A six-point Likert-type scale was used in this research, in which participants indicated the extent to which they agreed or disagreed with each item.

Three employee empowerment dimensions were identified: **autonomy and decision-making** (10 items, e.g., "My supervisor trusts my judgment"), **management support** (10 items, e.g., "My supervisor actively promotes cooperation between group members"), and **access to information and resources** (4 items, e.g., "My supervisor alerts me to training opportunities").

A pilot test of the questionnaire was conducted on a group of 20 individuals at a higher education institution, as they were considered the most suitable to provide feedback on the questionnaire. The researcher was also able to determine the suitability of the items and assess whether the questionnaire met the study's expectations. The pilot study enabled the researcher to remove items that were confusing, amend items to make them reader-friendly, and correct errors and flaws in the questionnaire.

The pilot test findings indicated that the allocated time for completing the questionnaire was sufficient. Most respondents indicated that the questionnaire was easy to understand, while some indicated minor changes to the wording of certain items. The following amendments were suggested:

- Item 7 of the leadership scale was originally phrased as "My supervisor is ambitious and tenacious". The respondent indicated that the supervisor can be ambitious and not tenacious. It was advised to be either ambitious or tenacious. The item was rephrased as follows: "My supervisor is tenacious".
- Item 4 of the employee empowerment scale was phrased as "My supervisor provides me with training opportunities". It was suggested to rephrase as follows: "My supervisor alerts me to training opportunities".
- Item 25 of the leadership scale was phrased as: "My supervisor allows very little room for discretion on the job". It was suggested that the item be rephrased as follows: "My supervisor allows me to use my discretion on the job".

Procedure

This study used the same dataset as Coetzee and Naidoo (2025), which was approved by the University of South Africa's HRM Research & Ethics Committee (2018_HRM_003) and employed here to address a different research objective. Participants were informed that the study was voluntary, and they provided informed consent electronically before completing the questionnaire. The purpose of the research, the type of information to be collected, and the participants' right to withdraw from the study were indicated on the consent form. The questionnaire was distributed electronically. The data was secured by password protection and stored in a locked location.

Data analysis

The data were analysed using the Statistical Package for Social Sciences (SPSS), version 22.0 (2013). Exploratory factor analysis (EFA) was conducted using principal axis factoring as the extraction method with promax rotation. The appropriateness of the data for factor analysis was assessed using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity. A KMO value above 0.70 is considered acceptable, values above 0.80 are good, and values above 0.90 are excellent (Kaiser, 1974). These tests confirmed adequate correlations among the scale items. Factors were retained based on eigenvalues greater than 1.0, and a factor loading threshold of 0.30 was applied. The reliability of the Employee Empowerment measure was evaluated using Cronbach's alpha, with a minimum acceptable value of 0.70.

Results

Exploratory factor analysis (EFA)

Table 2 presents the results to verify the suitability of the data for factor analysis. The KMO measure of sampling adequacy yielded a value of 0.936, which is well above the threshold of 0.60 (Kaiser, 1970). The significance level of Bartlett's sphericity test was 0 and below the cut-off of $p < 0.05$ (Bartlett, 1954). The Kaiser-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity results revealed that the data were suitable for factor

Table 2. The Kaiser-Olkin measure of sampling adequacy and Bartlett's Test of Sphericity

		Employee empowerment
Kaiser-Meyer-Olkin measure of sampling adequacy		0.936
Bartlett's test of sphericity	Approx. Chi-square	3167.021
	Df	210
	Sig.	0.000

Note. Source: Adapted from Naidoo (2023).

Table 3. Factor structure of employee empowerment

	Item description	Factor		
		1 Autonomy & decision-making	2 Management support	3 Access to information &resources
1	My supervisor trusts my judgement	0.818		
25	My supervisor allows me to use my discretion on the job	0.850		
8	My supervisor gives me control over the outcome of my tasks.	0.752		
9	My supervisor allows me to make decisions within certain limits.	0.758		
10	My supervisor allows me to be creative in performing my task.	0.830		
19	My supervisor allows me to set my own goals in line with organisational goals.	0.702		
22	My supervisor supports the decisions I make on his/her behalf.	0.731		
14	My supervisor involves me in discussions about job-related matters.	0.606		
21	My supervisor has an open mind and is willing to consider suggestions.	0.736	.	
26	My supervisor implements my suggestions in the department.	0.704		
18	My supervisor actively promotes cooperation between group members.		0.612	
20	My supervisor recognises and praises me for my achievements.		0.610	
24	My supervisor makes me believe in myself.		0.647	
27	My supervisor views me as an important member of the department.		0.510	
7	My supervisor gives me adequate feedback on my job performance.		0.660	
11	My supervisor looks after my interests.		0.642	
12	My supervisor is willing to mentor me.		0.766	
13	My supervisor consults me on issues that concern my job.		0.634	
15	My supervisor views my job as being important.		0.564	
16	My supervisor actively assists me with challenging tasks.		0.758	
4	My supervisor alerts me to training opportunities.			0.805
5	My supervisor provides me with the resources I need to perform my job.			0.672
6	My supervisor provides me with general information about my organisation on a regular basis.			0.808
28	My supervisor shares relevant information with me.			0.556

Note. Source: Adapted from Naidoo (2023).

analyses. Item 17 did not meet the factor loading threshold of 0.30 and was therefore excluded from further analyses (Veth et al., 2018). Item 9 cross-loaded on both Factor 1 (0.758) and Factor 3 (0.420), and because of the higher loading on Factor 1, it was included in Factor 1. Item 8 loaded on both Factor 1 (0.752) and Factor 3 (0.420); because of its high loading on Factor 1, it was included in Factor 1. Items 8 and 9 were also retained in Factor 1 because they aligned theoretically with autonomy and decision-making.

Principal-axis factor analysis revealed the presence of three factors with eigenvalues greater than 1.0, which collectively explained 61.49% of the variance in employee empowerment. The exploratory factor analysis revealed that all factor loadings exceeded the recommended cut-off of 0.30, which is considered the minimum threshold for acceptance (Hair et al., 2010). The factors were therefore considered suitable for inclusion. The factor loadings in the pattern matrix, as depicted in Table 3, were analysed in line with the theory and labeled as follows:

Factor 1: Autonomy and decision-making

Factor 2: Management support

Factor 3: Access to information and resources

Table 4. Average variance extracted (AVE) and composite reliability (CR)

Construct	CR	AVE
Autonomy & decision-making	0.967	0.743
Management support	0.969	0.758
Access to information & resources	0.913	0.724

Table 5. Internal consistency reliability of the employee empowerment questionnaire

Dimension name	Cronbach's Alpha	No of items	Mean (M)	Standard deviation (SD)	Skewness	Kurtosis	Autonomy and decision-making	Management support	Access to information and resources
Autonomy and decision-making	0.97	10	4.17	1.30	−0.82	−0.29	1		
Management support	0.97	10	4.07	1.38	−0.67	−0.65	0.90**	1	
Access to information and resources	0.92	4	3.96	1.35	−0.62	−0.62	0.80**	0.85**	1

Note. $^{**}p \leq 0.01$. Source: Adapted from Naidoo (2023).

Confirmatory factor analysis

Confirmatory factor analysis using structural equation modeling (SEM) was conducted to further test the factor structure of employee empowerment. The measurement model comprised three employee empowerment dimensions: autonomy and decision-making, management support, and access to information and resources.

The model fit statistics revealed an acceptable fit, as indicated by the RMSEA (0.064), the SRMR value (0.0720), and the CMIN/df value of 2.845. The CFI (0.870), TLI (0.863), and IFI (0.870) values were close to the threshold value of 0.9. According to Lai and Green (2016), RMSEA and CFI can disagree, and should not be the reason for dismissing a model. In addition, Wisting et al. (2019) considered TLI, and CFI values above 0.8 as permissible. Therefore, the measurement model was considered an adequate fit to the data.

Convergent validity

Convergent Validity of the Employee Empowerment Scale was ensured using Average Variance Extracted (AVE) and Composite Reliability (CR). AVE and CR were calculated for each dimension (autonomy and decision-making, management support, and access to information and resources) in the measurement model, as shown in Table 4. All values for the employee empowerment dimension were above the threshold value, as indicated in Table 4, and therefore met the criteria for convergent validity, specifically 0.5 for AVE and 0.7 for composite reliability (Fornell & Larcker, 1981).

Discriminant validity

Discriminant validity was tested using the Heterotrait-Monotrait Approach (HTMT). The HTMT values between autonomy and decision-making, as well as management support, were 0.949 (Hair et al., 2010), indicating a lack of discriminant validity. Based on the results of the convergent and discriminant validity outcomes, specifically to address the multicollinearity, a second-order factor model for leadership and employee empowerment was considered.

Since the three empowerment dimensions were strongly correlated, a second-order confirmatory factor model was tested to determine whether they indicate a single higher-order construct. The second-order model demonstrated a good target coefficient (T = 0.999), indicating that the higher-order employee empowerment factor explains almost all the covariance among the three first-order factors. This provides strong support for modelling employee empowerment as a unified, higher-order construct.

Descriptive statistics and bivariate correlations

Table 5 shows the descriptive data analysis, including the reliability coefficients, skewness, and kurtosis values of the identified factors. Regarding reliability, all factors had Cronbach's alpha values ranging from 0.92 to 0.97. Cronbach's alpha is a measure of scale reliability that evaluates how well several items together measure a construct. A coefficient alpha of 0.6 or less is said to be unacceptable (Bajpai, 2011; Bryman & Bell, 2015). The following reliability scores were determined for each of the employee empowerment factors:

- Autonomy and decision-making (10 items): $\alpha = 0.97$.
- Management support (10 items): $\alpha = 0.97$.
- Access to information and resources (4 items): $\alpha = 0.92$.

The factor with the highest mean score was autonomy and decision-making (M = 4.17, SD = 1.30), and the factor with the lowest mean score was access to information and resources (M = 3.96, SD = 1.35). The skewness values indicated that all constructs had a negative skew but fell within the range of −2 to +2 and between −7 and +7 for kurtosis to be considered acceptable and for a normal distribution to occur (Kline, 2011).

Pearson's product-moment correlation was used to assess the strength and direction of the relationships between employee empowerment factors. According to Cohen (1992), correlation coefficients (r-values) from 0 to 0.30 indicate a small relationship, 0.31 to 0.49 indicate a moderate relationship, and 0.50 to 1.0 indicate a strong relationship. As shown in Table 6, correlation coefficients of $r \geq 0.50$ were considered practically significant, representing a large effect. Specifically, the correlations between

Table 6. Correlations

VARIABLES		Autonomy and decision-making	Management support	Access to information and resources
Employee empowerment	Autonomy and decision-making	1		
	Management support	0.90**	1	
	Access to information and resources	0.80**	0.85**	1

Note. **$p \leq 0.01$, $r = 0.10 \leq 0.29$ are practically significant (small effect). $0.30 \leq r \leq 0.49$ are practically significant (medium effect). $r = 0.50 \leq 1.0$ are practically significant (large effect). Source: Adapted from Naidoo (2023).

autonomy and decision-making, management support, and access to information were all practically significant. Similarly, the correlation between management support and access to information and resources was also strong. None of the subscales exhibited very low correlations, suggesting substantial internal consistency and validity between the subscales.

The results indicate that the 28-item Employee Empowerment Scale for higher education staff demonstrates a valid and reliable internal factor structure. The identified factors are internally reliable in terms of factor loadings (>0.30) and Cronbach's Alpha coefficients ($\alpha \geq 0.70$).

Discussion

The study aimed to determine the internal reliability and validity of the empowerment scale as applicable in a South African higher education institution. The findings of this study align strongly with those of previous studies. The dimensions of autonomy and decision-making correspond closely with those identified by Short and Rinehart (1992), Saleem et al. (2017), and Zhang et al. (2018), while management support reflects the constructs emphasised in Kanter (1993)'s theory and in Laschinger et al. CWEQ-II (2001)'s. Similarly, access to information and resources aligns with the dimensions reported by Kanter (1993), Spreitzer (1995), Connolly et al. (2018), and Amor et al. (2020), suggesting that the scale for this study identified key empowerment dimensions that were consistently observed across different empowerment models.

The identified factor structure overlaps with that of other employee empowerment scales. Autonomy and decision-making, management support, and access to information and resources correspond closely to Kanter and Laschinger's CWEQ-II dimensions (Laschinger et al., 2012). Autonomy and decision-making align with formal and informal power, management support aligns with the support dimension, and access to information and resources aligns with the information and resources dimensions. Unlike the CWEQ-II, the present scale did not include the opportunity dimension, which reflects access to professional growth and advancement.

The confirmatory factor analysis provided support for the three-factor structure of the empowerment scale. The overall model demonstrated acceptable fit, with RMSEA (0.064), SRMR (0.072), and CMIN/df (2.845) falling within recommended thresholds for good or acceptable fit in social science research. Although the CFI (0.870) and TLI (0.863) values were slightly below the conventional benchmark of 0.90, these indices are known to be sensitive to complex models and large item pools (Lai & Green, 2016). In such cases, RMSEA and SRMR often provide more stable and reliable indicators of model adequacy, particularly when sample size and item quantity increase model complexity. When interpreted holistically, the results suggest that the proposed three-dimensional conceptualisation of empowerment—encompassing autonomy and decision-making, managerial support, and access to information and resources—adequately represents the empirical data. This provides evidence of factorial validity and supports the suitability of the scale for assessing empowerment within a South African higher education institution.

Theoretical and practical contributions

The study makes a clear theoretical contribution by conceptualising empowerment specifically for the higher education context and demonstrating that empowerment among university staff can be understood as a three-dimensional construct comprising *autonomy and decision-making*, *management support*, and *access to information and resources*. Although these dimensions align partially with Kanter and Laschinger's CWEQ-II, the study advances theory by (1) confirming that a unique configuration of empowerment applies within higher education, (2) demonstrating that these dimensions strongly converge into a single higher-order empowerment construct, and (3) showing that the "opportunity" dimension common in other models is not central in this context. This refined conceptualisation therefore extends empowerment theory by providing a context-specific model that reflects the governance, autonomy, and resource structures characteristic of higher education institutions, particularly in South Africa.

Empirically, the study contributes a validated and reliable 28-item Employee Empowerment Scale, tailored to the higher education sector. Through rigorous statistical procedures—EFA, CFA, reliability analysis, convergent and discriminant validity testing, and higher-order factor modelling—the study provides evidence of a sound measurement structure with high reliability ($\alpha = 0.92$–0.97), strong factor loadings (>0.30), acceptable model fit indices, and robust construct validity. The second-order confirmatory factor analysis further demonstrates that the three dimensions are best represented as a unified, higher-order construct, offering an integrative measure not previously available for higher education institutions. This provides institutions with a psychometrically supported instrument for assessing staff empowerment, enabling more accurate diagnosis, benchmarking, and informed

planning of interventions. The scale's validation within a South African higher education context also fills a gap in empirical literature, where contextually grounded empowerment measures are limited.

The Employee Empowerment Scale developed in this study offers a practical tool for HR professionals and managers to measure and understand empowerment in HEIs. The findings of this study highlight the crucial role of autonomy and decision-making, management support, and access to information and resources in fostering employee empowerment within South African higher education institutions.

Limitations and future directions

The exploratory research on employee empowerment was limited to a single higher education institution. Future studies should focus on other higher education institutions. By extending the research to other higher education institutions, a more comprehensive understanding of employee empowerment can be achieved, and higher representation of the broader higher education sector can be attained. Using the scale in other higher educational institutions, future researchers can also establish whether the factor structure remains consistent.

The cross-sectional nature of the study limits the ability to establish causal relationships between employee empowerment and staff outcomes over time. A longitudinal study can be carried out to examine changes over time. Questionnaires should be combined with interviews to reduce self-report bias and allow participants to express their accurate views on employee empowerment. The scale identified three key dimensions but did not capture other elements highlighted in established models. Future studies can incorporate additional dimensions, such as opportunities for growth, professional status, impact, self-efficacy, and the meaningfulness of work, to provide a more comprehensive understanding of employee empowerment within higher education institutions.

Although the response rate was relatively low at 8.3%, the final sample size of 452 participants was sufficiently large for robust statistical analysis. The demographic distribution across gender, age, qualifications, job tenure, and job level indicates that the sample was acceptably representative of the broader employee population. While a low response rate may raise concerns about potential non-response bias, as participants may differ in their attitudes toward empowerment, this pattern is not unusual. Web-based surveys typically yield lower response rates than paper-based surveys, even in higher education contexts (Sax et al., 2003). Given the adequate sample size and diversity of respondents, the findings remain meaningful, though they should still be interpreted with appropriate caution. Future research could expand the study to additional South African higher education institutions to broaden representation and further strengthen generalisability.

Conclusion

This study tested the internal reliability and validity of an Employee Empowerment Scale for use in higher education institutions operating in digitally enabled environments. The findings confirmed a stable three-factor structure encompassing autonomy and decision-making, management support, and access to information and resources. Both exploratory and confirmatory factor analyses provided evidence of construct validity, while reliability and validity indices supported the internal consistency and relevance of the empowerment dimensions. The study addresses a gap in existing empowerment scales that were largely developed in non-academic contexts. The validated instrument offers higher education leaders and human resource practitioners a practical means of assessing empowerment and identifying areas for targeted development. Future research could apply the scale to other higher education institutions to further examine its generalisability and usefulness in supporting organisational change and staff development.

Acknowledgement: Not applicable.

Funding Statement: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Author Contributions: The authors confirm contribution to the paper as follows: study conception and design: Linda Naidoo; data collection: Linda Naidoo; analysis and interpretation of results: Linda Naidoo and Mariette Coetzee; draft manuscript preparation: Linda Naidoo. All authors reviewed and approved the final version of the manuscript.

Availability of Data and Materials: The data can be accessed by contacting the authors of the manuscript.

Ethics Approval: Ethics clearance was granted by the University of South Africa HRM Research & Ethics Committee (2018_HRM_003) to conduct the study. Participants were informed that the study was voluntary, and they provided informed consent electronically before completing the questionnaire. The purpose of the research, the type of information to be collected, and the participants' right to withdraw from the study were indicated on the consent form.

Conflicts of Interest: The authors declare no conflicts of interest.

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