




Age and work engagement: Psychological contract influence in Zimbabwean tertiary education

**Authors:**

Pride Mkandatsama¹ 
Nadia Ferreira¹ 
Alda Deas¹ 

Affiliations:

¹Department of Human Resource Management, School of Management Sciences, College of Economic and Management Sciences, University of South Africa, Pretoria, South Africa

Corresponding author:

Nadia Ferreira,
ferren@unisa.ac.za

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Orientation: The economic crisis has impacted tertiary education in Zimbabwe. There is a threat to work engagement because of a lack of support for tertiary institutions, which requires prioritising employment relationships and work engagement.

Research purpose: The aim of this study was to examine the influence of age on the relationship between the psychological contract (PC) and work engagement among Zimbabwean tertiary institutions' employees.

Motivation for the study: Lower levels of work engagement impact tertiary institutions in a dynamic and complex environment.

Research approach/design and method: A cross-sectional quantitative survey was conducted on a census population of permanent and contract, academic and non-academic employees, with a final sample ($N = 336$) employed in a selected tertiary institution in Zimbabwe. Correlation statistics, specifically tests for bivariate correlations, and inferential statistics, specifically tests for significant mean differences, were performed.

Main findings: Tertiary institutions' employees from different age groups differ significantly in terms of their PC preferences and their levels of work engagement.

Practical/managerial implications: Interventions for tertiary institutions staff work engagement should consider improving varied employees' PCs by fostering employee satisfaction with their PC and the fulfilment of promises and commitments in the employment relationship.

Contribution/value-add: This article offers new insights into the PC and work engagement preferences of employees in the Zimbabwean tertiary institutions context.

Keywords: tertiary institutions; age; psychological contract; work engagement; employer obligation; employment relationship; vigour, dedication, absorption.

Introduction

Zimbabwean tertiary institutions are facing challenges in engaging their staff (Abdall, 2016; Henkel & Haley, 2020; Jayasena et al., 2023; Majoni, 2014; Nhamo et al., 2024; Phuthi, 2022; Shoko & Zinyemba, 2014; Tshilongamulenzhe & Takawira, 2015). Empirical research shows that the effective management of employee expectations within the framework of the psychological contract (PC) significantly influences work engagement (Aslam et al., 2020; Baiyeshea & McGregor, 2024; Bruce et al., 2014; Deepalakshmi et al., 2024; Johnston & Davies, 2025; Naidoo et al., 2019; Nethavani & Maluka, 2020; Roberts, 2020; Snyman & Ferreira, 2023). However, there is scant research on the influence of socio-demographic variables, specifically age, on the relationship between the PC and work engagement of employees. Thus, the current study examines the influence of age on the PC and work engagement of tertiary institutions' employees in Zimbabwe.

Although research indicates the relationship between the PC and work engagement (Aslam et al., 2020; Baiyeshea & McGregor, 2024; Deas & Coetzee, 2022; Gazi et al., 2025; Kraak et al., 2024; Naidoo et al., 2019; Nethavani & Maluka, 2020; Ngobeni & Bezuidenhout, 2011; Roberts, 2020; Swalhi et al., 2017; Wonda et al., 2024), less attention has been given to the influence of socio-demographic variables (Alam et al., 2022; Deas, 2017; Snyman et al., 2022). Additionally, there is little research on the influence of age on employees' PC and work engagement in tertiary institutions (Bruce et al., 2014; Naidoo et al., 2019).

Considering the levels of work engagement at tertiary institutions in Zimbabwe (Agbionu et al., 2018; Nhamo et al., 2024; Pradhan et al., 2017; Uzhenyu, 2019) and the diversity of employees within these institutions (Deas, 2017; Phuthi, 2022; Sherman et al., 2025), it is essential for tertiary institutions to implement targeted work engagement interventions aimed at enhancing the engagement of their diverse workforce. The present study aims to address this gap by exploring the socio-demographic differences related to age within the workforce of tertiary institutions and investigating how these age differences impact the relationship between PC preferences and levels of work engagement. The research findings may potentially inform work engagement practices for diverse employees in the tertiary education sector, with particular emphasis on age as a critical demographic factor. Understanding age-related differences is essential, as employees at various life and career stages often have distinct values, motivational drivers, communication preferences and work expectations. Tailoring engagement strategies to accommodate these generational differences can enhance job satisfaction, productivity and retention, ultimately contributing to a more inclusive and high-performing academic workforce.

Work engagement within the tertiary institutions' context

Zimbabwean tertiary institutions face challenges in engaging their employees, which adversely affects the effective functioning of these institutions (Agbionu et al., 2018; Nhamo et al., 2024; Phuthi, 2022; Shoko, 2014; Tshilongamulenzhe & Takawira, 2015; Uzhenyu, 2019). Employees in tertiary institutions are frustrated with working conditions emanating from inadequate teaching and research facilities, poor remuneration, high workloads and unfavourable policies (Agbionu et al., 2018; Ahuja & Gupta., 2019; Henkel & Haley, 2020; Johnston & Davies, 2025; Majoni, 2014; Nhamo et al., 2024; Pradhan et al., 2017; Saks, 2019; Sangeetha et al., 2018). Deepa (2024), Pradhan et al. (2017), Saks (2019), Sangeetha et al. (2018) and Tatjana and Lugonjic, (2022) concluded that poor working conditions could result in the disengagement of employees from their work. If tertiary institutions fail to engage their staff, they may be unable to fulfil their obligations, including fostering innovation, developing workforce skills and initiating efforts that contribute to the country's economic growth (Nhamo et al., 2024; Phuthi, 2022). The appropriate strategies that tertiary institutions should consider for engaging their valuable employees include: performance management (Chahar & Hatwal, 2018; Deepa, 2024), communication, teamwork and collaboration (Atiku & Wyk, 2024; Deepa, 2024; Tatjana & Lugonjic, 2022), good leadership style (Azmy, 2019), learning and development, reward management (Altehbah et al., 2019), and organisational culture (Alam et al., 2022; Atiku & Wyk, 2024; Azmy, 2019; Deepa, 2024). Positive engagement of employees will contribute to the success of tertiary institutions (Atiku & Wyk, 2024; Deepa, 2024; Phuthi, 2022; Snyman et al., 2022; Uzhenyu, 2019). The management

teams of tertiary institutions need to understand the socio-demographic differences of their employees in terms of age as well as the influence it may have on their PC and work engagement to devise appropriate work engagement interventions. Tertiary institutions should assess and ensure fulfilment of promises made to employees as work engagement practices (Alam et al., 2022; Snyman & Ferreira, 2023; Tatjana & Lugonjic, 2022).

The relationship between the psychological contract and work engagement

To develop and implement work engagement strategies and practices for increased work engagement, it is crucial to consider the factors that may influence the work engagement of employees. Related studies reveal that employee perceptions of fulfilled employer obligations, promises and commitments to the employment relationship significantly influence their work engagement (Ashry et al., 2025; Deas, 2017; Deas & Coetzee, 2022; Guest, 2004; Kraak et al., 2024; Rousseau, 1989; Snyman et al., 2022; Wonda et al., 2024). Such perceptions denote the PC between employees and their employers (Guest & Conway, 2002; Linde & Gresse, 2020; Rousseau, 1989; Snyman & Ferreira, 2023). The PC refers to employee and employer perceptions of the exchange of implicit promises and obligations in an employment relationship (Freese & Schalk, 2008; Guest, 2004; Johnston & Davies, 2025; Rousseau, 1989; Sherman et al., 2025). The state of the PC is based on the extent to which employees perceive that the organisation meets its promises and commitments with fairness (Guest & Conway, 2002; Johnston & Davies, 2025; Opolot & Maket, 2020). The PC lays the foundation of the employment relationship with a significant impact on work engagement (Bruce et al., 2014; Deas & Coetzee, 2022; Linde & Gresse, 2020; Naidoo et al., 2019; Snyman & Ferreira, 2023; Van der Vaart et al., 2013; Van der Walt & Du Plesis, 2010).

Empirical research shows that employees' level of work engagement increases when employees perceive fulfilment of the organisation's obligations, promises and commitments (Atiku & Wyk, 2024; Deepa, 2024; Garcia et al., 2021; Gresse & Linde, 2020; Opolot & Maket, 2020; Wiechers et al., 2019). Employees' perceptions of fulfilled promises will not create perceptions of breach or violation; however, employees' perceptions of unfulfilled promises will lead to PC breach that in turn influences their disengagement (Deas, 2017; Herrera & De Las Heras-Rosas, 2021; Johnston & Davies, 2025; Morrison & Robinson, 1997; Snyman & Ferreira, 2023; Snyman et al., 2015; Wiechers et al., 2019).

The influence of age

Past studies on the PC have consistently demonstrated that age differences among employees are pivotal in shaping work engagement practices and strategies (Adams et al., 2014; Bal, 2015; Crampton & Hodge, 2007; DelCampo et al., 2010; Garcia et al., 2021; Hess & Jepsen, 2009; Ng & Feldman, 2009; Poisat et al., 2018; Rasticova & Hinzmann, 2024;

Roberts, 2020; Smola & Sutton, 2002; Twenge, 2010; Vishvapujita & Vasantha, 2025). Understanding these age-related differences is essential for the development of targeted, age-responsive work engagement strategies. The socio-demographic variable of age plays a critical role in assisting tertiary institutions to better comprehend the dynamics of employees' PCs and to tailor interventions that can meaningfully enhance engagement levels across diverse age groups (Poisat et al., 2018).

Further, studies focusing specifically on work engagement within tertiary institutions highlight that different age cohorts perceive and interpret the PC in fundamentally different ways (Adams et al., 2014; Alam et al., 2022; Bal, 2015; Deas, 2017; Garcia et al., 2021; Geldenhuys & Henn, 2017; Henkel & Haley, 2020; Twenge, 2010). This variation underscores the fact that work attitudes, values and expectations evolve across generations, directly influencing how PCs and work engagement are experienced and fulfilled (DelCampo et al., 2010; Garcia et al., 2021; Rasticova & Hinzmann, 2024; Smola & Sutton, 2002; Twenge, 2010). Research further confirms that employees' expectations within the employment relationships are significantly shaped by age as a socio-demographic factor, which introduces distinct priorities and preferences across different age groups (Adams et al., 2014; Bal, 2015; Crampton & Hodge, 2007; Hess & Jepsen, 2009; Mmako & Schultz, 2016; Poisat et al., 2018; Vishvapujita & Vasantha, 2025). These age differences are not merely peripheral but are central to understanding how PCs are formed, perceived and maintained, ultimately affecting levels of work engagement.

Understanding age differences is essential because employees at different life and career stages hold varying expectations, values and perceptions of the PC, which directly influence their levels of work engagement. Recognising and addressing these age-specific needs can enable tertiary institutions to develop more targeted strategies that foster sustained engagement and fulfilment across all age groups in the workforce.

Research objective

The study aimed to enhance the understanding of the relationship between PCs and work engagement among employees in Zimbabwean tertiary institutions, with a particular focus on their age.

Specifically, this study aimed to:

- Explore the differences in terms of age among employees in tertiary institutions concerning their psychological contract preferences and work engagement.
- Explore the influence of age on the relationship between the psychological contract and work engagement among Zimbabwean tertiary institution employees.

Investigating the relationship between the PC and work engagement can play a pivotal role in developing,

enhancing and sustaining positive work engagement among a diverse workforce within Zimbabwe's tertiary institutions. Understanding this dynamic is essential for fostering a committed, motivated and high-performing academic environment.

Research design

To achieve the objective of the study, a quantitative research approach was utilised. Data were collected via an online questionnaire from permanent and temporary, academic and non-academic employees in a selected tertiary institution. The census sampling method, involving selecting all elements of the population to participate in the study, was employed. This approach ensures that every element of the population has an equal chance of inclusion, thereby guaranteeing the accuracy and reliability of the findings (Cantwell, 2008; Golata, 2016; Ronit & Glickman, 2009).

Participants

The participants consisted of 336 employees ($N = 336$) from a selected tertiary institution in Zimbabwe, including permanent and contract staff, as well as academic and non-academic employees, as seen in Table 1. The participants' ages were grouped in the following ranges: 18–25 years, 26–35 years, 36–45 years, 46–55 years and 56–65 years. The majority of the sample mainly comprised individuals in the 36–45 years age group (50.3%).

Measuring instruments

Participants completed the Psycones Questionnaire (PQ) (Guest 2004; Psycones, 2006) and the Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2002). Additionally, participants provided self-reported socio-demographic information, including their age.

Psychological contract

Participants' PC preferences were measured using the PQ (Guest 2004; Psycones, 2006), developed by the Psycones project (De Cuyper et al., 2011). The PQ consists of 43 items and four subscales (employer obligations, employee obligations, state of the PC and job satisfaction), and items are scored on a five-point Likert-type scale where 1 is 'strongly disagree' and 5 is 'strongly agree'.

The employer obligations subscale relates to a person's perception of promises made by the organisation and encompasses questions like: 'Has your organisation promised or committed itself to providing you with a job that is challenging?' and 'Has your organisation promised or committed itself to

TABLE 1: Main characteristics of the sample ($N = 336$).

Socio-demographic variable	Predominant characteristic	%
Age (years)	36–45	50.3
Gender	Male	66.1
Race	Black African persons	99.1
Employment status	Permanent	86.6

allowing you to participate in decision-making?' The employee obligations subscale pertains to an individual's perception of his or her promises made to the organisation and entails questions such as: 'Have you promised or committed yourself to showing loyalty to your organisation?' and 'Have you promised or committed yourself to being a good team player?' The job satisfaction subscale includes six statements to establish participants' feelings related to the PC, for example, statements such as: 'I feel happy', 'I feel sad', 'I feel pleased'. Lastly, the fourth subscale concerns the overall state of the PC and contains statements like: 'Do you feel that organisational changes are implemented fairly in your organisation?' and 'Do you feel fairly treated by managers and supervisors?'

Work engagement

The participants' levels of work engagement were measured using the UWES (Schaufeli et al., 2002). The UWES is a 17-item measure of work engagement. It consists of three dimensions of work engagement, namely vigour (seven items, example item: 'At my work, I feel bursting with energy'), dedication (five items, example item: 'I find the work that I do full of meaning and purpose') and absorption (six items, example item: 'Time flies when I'm working'). The items are scored on a 7-point Likert-type scale ranging from 0 = Never to 6 = Always (every day). Studies conducted by Dominiques-Salas et al. (2022) and Schaufeli et al. (2017) confirm that this instrument is an adequate, valid and reliable measure for measuring work engagement.

Data collection

A gatekeeper distributed the version 2020 Limesurvey online questionnaire via the institution's email system to a total of 1621 employees, resulting in 336 completed questionnaires, yielding a response rate of 20.73%. Participants' responses to the questionnaire were exported into a Microsoft Excel spreadsheet, which was then converted to an SPSS file for data analyses. The online questionnaire included a cover letter outlining the research objectives and assuring the participants of the privacy and confidentiality of their responses. Participation was voluntary and contingent upon informed consent.

Statistical analysis

The data analysis process was conducted in three stages using SPSS Version 2.1. The first stage involved descriptive statistical analysis, which included the calculation of the means and standard deviations. The second stage focused on correlation analysis, where the strength and direction of the relationship between the PC and work engagement were assessed using Pearson's product-moment correlation coefficient (r). The third stage comprised inferential and multivariate statistical analysis, which included tests for significant mean differences using the Kruskal-Wallis test.

Ethical considerations

Ethical clearance to conduct this study was obtained from the University of South Africa Human Resource Management Ethics Review Committee (UNISA HRM ERC) (Ref: 2020_HRM_015).

Results

Descriptive statistics, construct validity and reliability statistics

The descriptive statistics and the construct validity and reliability statistics for the study variables are presented in Table 2.

Respondents rated employee obligations the highest, with a mean of 3.51 (SD = 1.49), while the state of the PC was rated the lowest, with a mean of 1.75 (SD = 0.95). The results presented in Table 2 show the mean scores for work engagement and its dimensions, which range from 3.09 to 3.34. Respondents rated dedication the highest, with a mean of 3.34 (SD = 1.96), while vigour was rated the lowest, with a mean of 3.09 (SD = 1.89).

The Cronbach's alpha coefficients for scores from the PQ range from 0.70 to 0.95 (Psycones, 2006). In the current study, the reliability of scores from the PQ was 0.98 for employer obligations, 0.98 for employee obligations, 0.91 for job satisfaction and 0.97 for the overall state of the PC. In the current study, the reliability of scores from the UWES was 0.98 for vigour, 0.98 for dedication and 0.98 for absorption.

For the PQ, the average variance extracted (AVE) values ranged from 0.61 to 0.82, with composite reliability values between 0.90 and 0.98. These results collectively demonstrate acceptable convergent validity for the PQ. For the UWES, the AVE values ranged from 0.89 to 0.91, and all composite reliability values were consistently 0.98. These coefficients similarly indicate strong convergent validity for the UWES.

Bivariate correlation analysis

Table 3 summarises the results of the correlations between the PQ and retention factors (UWES).

TABLE 2: Descriptive statistics and reliability coefficients ($N = 336$).

Variables	Mean	SD	α	CR	AVE
Employer obligations	2.47	1.16	0.98	0.98	0.79
Employee obligations	3.51	1.49	0.98	0.98	0.77
Job satisfaction	3.01	0.93	0.91	0.90	0.61
State of the PC	1.75	0.95	0.97	0.97	0.82
Overall PQ	2.81	1.02	0.98	n/a	n/a
Vigour	3.09	1.89	0.98	0.98	0.90
Dedication	3.34	1.96	0.98	0.98	0.91
Absorption	3.20	1.83	0.98	0.98	0.89
Overall UWES	3.20	1.84	0.99	n/a	n/a

CR, composite reliability; AVE, average variance extracted; PC, Psychological contract; SD, standard deviation; UWES, Utrecht Work Engagement Scale; PQ, Psycones Questionnaire.

Table 3 shows that the relationships between all four subscales of PC were ranged from $r \geq 0.45 \leq 0.82$ (moderate to large practical effect size; $p \leq 0.05$). The four subscale dimensions of the PQ also had significant and positive correlations with the overall PC ($r \geq 0.72 \leq 0.88$; large practical effect size; $p \leq 0.001$).

In addition, as indicated in Table 3, the results showed a significant correlation between the three subscale dimensions of the UWES, in the range of $r \geq 0.53 \leq 0.94$ (moderate to large practical effect size; $p \leq 0.05$). The three subscales of the UWES also had significant and positive correlations with the overall UWES scale ($r \leq 0.98$; large practical effect size; $p \leq 0.001$), indicating the construct validity of the general construct of work engagement.

Tests for significant differences between age groups

The results from the tests for significant differences between the age groups in terms of their PC-related preferences, as well as their work engagement, are outlined and discussed below.

The data were not normally distributed; hence the non-parametric Kruskal–Wallis test was utilised. This article specifically focuses on age as the primary variable of interest. No significant differences were found between employment categories (academic and non-academic) during data analysis; therefore, results for these categories are not reported.

Table 4 presents the mean scores for the PC, indicating statistically significant differences in mean ranks across the age groups for several key dimensions. Specifically, significant differences were observed for employee obligations ($H = 16.05$, $df = 3$, $p < 0.001$), job satisfaction ($H = 12.59$, $df = 3$, $p = 0.01$), the state of the PC ($H = 18.76$, $df = 3$, $p < 0.001$) and the overall PC ($H = 11.70$, $df = 3$, $p = 0.01$). Notably, participants aged between 18 and 35 years consistently reported significantly higher mean scores compared to other age groups on employee obligations ($M = 235.86$), job satisfaction ($M = 222.66$), the state of the PC ($M = 233.04$) and the overall PC ($M = 222.43$). This suggests that younger employees perceive their PC more positively

and are more satisfied in their roles relative to their older counterparts. In contrast, no significant differences were found in the mean ranks for employer obligations across the four age groups ($H = 6.02$, $df = 3$, $p = 0.11$), indicating a consistent perception of employer obligations regardless of age. Overall, the findings highlight that age plays a significant role in shaping employees' perceptions of their obligations,

TABLE 4: Test for significant means differences ($N = 336$).

Variables	Age (years)	<i>n</i>	Mean	Kruskal-Wallis <i>H</i>	<i>df</i>	<i>p</i>
Employer obligations	18–35	28	172.05	6.022	3	0.111
	36–45	169	156.85			
	46–55	116	178.75			
	56–65	23	198.11			
Employee obligations	18–35	28	235.86	16.049	3	0.001
	36–45	169	156.68			
	46–55	116	169.46			
	56–65	23	168.48			
Job satisfaction	18–35	28	222.66	12.588	3	0.006
	36–45	169	160.48			
	46–55	116	161.47			
	56–65	23	196.91			
State of the psychological contract	18–35	28	233.04	18.755	3	< 0.001
	36–45	169	159.80			
	46–55	116	160.26			
	56–65	23	195.41			
Overall PQ	18–35	28	222.43	11.703	3	0.008
	36–45	169	156.57			
	46–55	116	170.06			
	56–65	23	182.67			
Vigour	18–35	28	219.43	10.393	3	0.016
	36–45	169	160.66			
	46–55	116	163.49			
	56–65	23	189.39			
Dedication	18–35	28	228.77	13.866	3	0.003
	36–45	169	159.25			
	46–55	116	163.50			
	56–65	23	188.35			
Absorption	18–35	28	227.20	13.585	3	0.004
	36–45	169	157.26			
	46–55	116	167.21			
	56–65	23	186.15			
Overall UWES	18–35	28	228.79	14.136	3	0.003
	36–45	169	157.86			
	46–55	116	165.45			
	56–65	23	188.65			

UWES, Utrecht Work Engagement Scale; PQ, Psycones Questionnaire; *df*, degree of freedom.

TABLE 3: Bivariate correlations between the psychological contract and work engagement ($N = 336$).

Variables	Employer obligations	Employee obligations	Job satisfaction	State of psychological contract	Overall PQ	Vigour	Dedication	Absorption	Overall UWES
Employer obligations	-	-	-	-	-	-	-	-	-
Employee obligations	0.59***	-	-	-	-	-	-	-	-
Job satisfaction	0.45***	0.46***	-	-	-	-	-	-	-
State of psychological contract	0.56***	0.63***	0.61***	-	-	-	-	-	-
Overall PQ	0.78***	0.88***	0.72***	0.82***	-	-	-	-	-
Vigour	0.56***	0.75***	0.58***	0.71***	0.80***	-	-	-	-
Dedication	0.54***	0.73***	0.59***	0.70***	0.79***	0.93***	-	-	-
Absorption	0.53***	0.73***	0.57***	0.68***	0.78***	0.94***	0.94***	-	-
Overall UWES	0.56***	0.75***	0.59***	0.72***	0.81***	0.98***	0.98***	0.98***	-

Notes: $r \leq 0.30$ (small practical effect size), $r \geq 0.30 \leq 0.49$ (moderate practical effect size), $r \geq 0.50$ (large practical effect size).

UWES, Utrecht Work Engagement Scale; PQ, Psycones Questionnaire.

***, $p \leq 0.001$.

job satisfaction and the overall state of the PC, underscoring the importance of considering age-specific strategies in PC management.

Table 4 reveals significant differences in the mean ranks for work engagement across the various age groups. Specifically, statistically significant differences were found in the dimensions of vigour ($H = 10.39$, $df = 3$, $p = 0.02$), dedication ($H = 13.87$, $df = 3$, $p < 0.001$), absorption ($H = 13.59$, $df = 3$, $p < 0.001$) and overall work engagement ($H = 14.14$, $df = 3$, $p < 0.001$). Participants aged between 18 and 35 years consistently reported significantly higher mean scores compared to the other age groups for vigour ($M = 219.43$), dedication ($M = 228.77$), absorption ($M = 227.20$) and overall work engagement ($M = 228.79$). These elevated scores suggest that younger employees tend to experience greater energy, enthusiasm and immersion in their work than their older counterparts. Overall, the findings indicate that age is a significant factor influencing work engagement and its core components, emphasising the importance of developing age-responsive strategies to sustain and enhance work engagement across a multigenerational workforce.

Discussion

This study explored the relationships between the PC and work engagement, with particular attention given to the effect of age as a socio-demographic variable. The findings of the study indicated that a significant positive correlation exists between the PC and work engagement. Additionally, notable differences were observed in PC preferences and work engagement levels across various age groups. Specifically, individuals in the 18–35-year-old cohort demonstrated higher levels of satisfaction with their employee obligations, their overall perception of the PC and the state of the PC compared to other age groups (Bal et al., 2008; Crampton & Hodge, 2007; Garcia et al., 2021). Furthermore, this group seemed to exhibit greater engagement in terms of dedication, absorption and overall work involvement (Schaufeli et al., 2017; Twenge, 2010; Zacher & Rudolph, 2022). Considering these findings, it is recommended that tertiary institutions carefully consider the varied age profiles of their employees when formulating and executing strategies aimed at fostering work engagement (Bal, 2015; Hess & Jepsen, 2009; Ng & Feldman, 2009). Given that employees from different age groups may display distinct preferences regarding their PCs and demonstrate varying levels of work engagement, it is crucial for institutions to consider adopting a more personalised and flexible approach. Specifically, strategies may be tailored to accommodate the unique expectations, motivations and experiences of each age group, recognising that the PC is not a one-size-fits-all construct.

For instance, younger employees (18–35 years) may place greater emphasis on career development opportunities, job satisfaction and alignment with their personal values, which

suggests that engagement initiatives for this group should focus on professional growth, recognition and fostering a supportive work environment. Conversely, older employees may prioritise job security, stability and a sense of organisational loyalty, which would require engagement strategies that emphasise trust, long-term career prospects and respect for their experience and contributions (Ng & Veldman, 2009).

By addressing these age-specific needs and ensuring that the PCs are effectively managed and met, tertiary institutions can not only enhance the work engagement of their employees but also foster a more inclusive and motivating work environment. Such targeted strategies have the potential to improve overall job satisfaction, retention and performance, ultimately contributing to the achievement of institutional goals (Bal et al., 2008).

Implications for theory and practice

Based on the findings of this study, several key recommendations are offered for the management of tertiary institutions to ensure fairness and fulfilment of the PC, with the aim of enhancing work engagement levels.

Initially, the management of tertiary institutions must demonstrate flexibility and adaptability to meet the evolving needs and expectations of employees in an increasingly dynamic environment. This includes facilitating remote working arrangements to improve employees' work–life balance, as suggested by Alam et al. (2022) and Tatjana and Lugonjic (2022). Furthermore, institutions should implement comprehensive career planning initiatives and programmes to effectively manage employees' expectations and perceptions, as emphasised by Atiku and Wyk (2024), Deepalakshmi et al. (2024), Gresse and Linde (2020) and Nhamo et al. (2024).

The results of this study highlight the significant role of specific factors, such as employer obligations, the state of the PC and the overall PC, affecting work engagement. Therefore, it is crucial for tertiary institution management to prioritise these factors. Fulfilling obligations related to fair workloads, equitable rewards and recognition of academic freedom is essential for fostering positive perceptions of organisational justice (Johnston & Davies, 2025; Negash et al., 2019). Additionally, management should establish clear and transparent policies, ensure job security and create opportunities for career advancement through promotions. Support for learning and development programmes and inclusive decision-making processes is also vital, as employees tend to feel more engaged when they perceive themselves as integral to organisational decisions (Deepa, 2024; Garcia et al., 2021). Moreover, it is imperative that management upholds the promises made to employees and addresses any breaches of the PC, as doing so can significantly improve the state of the PC, thereby boosting work engagement.

This research provides valuable evidence of the relationship between the PC and work engagement, with insight into the effect of age in this relationship. While prior studies have explored the connection between these variables, this study offers a novel contribution by examining the dynamics within Zimbabwean tertiary institutions. The observed variations in PC preferences and work engagement across different age groups should inform the development of tailored engagement strategies, thereby helping institutions better engage their diverse workforce.

The findings of this study enrich the existing body of literature on human resource management and work engagement strategies in Zimbabwean tertiary institutions. Understanding the impact of socio-demographic factors, particularly age, on PCs and work engagement is critical for effectively engaging a diverse workforce and optimising organisational outcomes.

Limitations and future research

Several limitations should be considered when interpreting the findings of this study. Initially, the sample size and its quality may constrain the generalisability of the results. A larger and more diverse sample could provide a more accurate representation of the relationship between the PC, work engagement and age within the context of this study.

Additionally, the reliance on self-report questionnaires – specifically the PQ and the UWES – may have introduced biases, as responses were based on participants' personal perceptions, experiences and views. These subjective interpretations could have influenced the research outcomes. Furthermore, the study's focus on age as the sole socio-demographic variable limits the scope of the findings; the inclusion of additional socio-demographic factors could have provided a more comprehensive understanding of the relationships under investigation. Incorporating a qualitative investigation in further research could offer deeper insights into the mechanisms shaping these perceptions and enhance the overall contribution of the study.

The research was conducted at a single tertiary institution, which limits the applicability of the findings to other institutions within the sector. Moreover, the cross-sectional design of the study means that causality cannot be established, as the researcher had no control over the research variables. Despite these limitations, the results offer a foundational understanding that future studies can build upon to further explore work engagement practices within the broader tertiary education sector in Zimbabwe.

The study's sample predominantly consisted of employees aged between 36 years and 45 years within a single Zimbabwean tertiary institution, which limits the generalisability of the

findings to employees in other age groups or sectors beyond tertiary education. With only 336 participants, the sample size is relatively small, making it difficult to generalise the results to the entire population. Additionally, the study did not capture the perspectives of employers, which could provide valuable insights into the PC and work engagement from the employer's point of view. Therefore, future research should incorporate employers' views and consider a larger, more diverse sample. It would also be beneficial to replicate this study across a broader range of tertiary institutions in Zimbabwe to enhance the generalisability and robustness of the findings.

Conclusion

Work engagement within Zimbabwean tertiary institutions is a critical area of study, particularly given the observed lower levels of engagement in this sector. The findings of this research, including the significant relationships identified, provide valuable insights that can contribute to the development of individual and organisational interventions aimed at enhancing employees' work engagement. Moreover, a deeper understanding of age-related characteristics, PC preferences and their influence on work engagement can enable tertiary institutions to implement targeted strategies for sustaining and improving workforce engagement levels.

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Competing interests

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

Authors' contributions

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Data availability

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

Disclaimer

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References

- Abdall, S.Z.S. (2016). Quality assurance in Sudanese higher education: Current status and challenges ahead Sulim. *Journal of Total Quality Management*, 17(1), 1–18.
- Adams, S., Adams, F., & Klobodu, E. (2014). Psychological contract formation. *Sage Perspectives*, 17(3), 279–294. <https://doi.org/10.1177/2233865914545523>
- Agbionu, U.C., Anyalor, M., & Nwali, A.C. (2018). Employee engagement and performance of lecturers in Nigerian tertiary institutions. *Journal of Education and Entrepreneurship*, 5, 69–87. <https://doi.org/10.26762/jee.2018.40000015>
- Ahuja, S., & Gupta, S. (2018). Organisational commitment and work engagement as a facilitator for sustaining higher education professionals. *International Journal of Recent Technology and Engineering*, 7(655), 1846–1851.
- Alam, J., Mendelson, M., Boamah, M., & Gauthier, M. (2022). Exploring antecedents of employee engagement. *International Journal of Organisational Analysis*, 31(6), 2017–2030. <https://doi.org/10.1108/ijOA-09-2020-2433>
- Altehabah, S.S., Mohammed Yuss, M., & Obadebo Solimon, M. (2019). Factors influencing employee engagement: A study of Sana'a university. *International Journal of Modern Trend in Business Research*, 2(9), 23–37.
- Ashry, T., Hassan, E., & Gawish, M.A. (2025). The relationship between psychological contract and job embeddedness. 'An empirical study on the banking sector employees'. *Raya International Journal of Business Sciences*, 4(12), 770–810. <https://doi.org/10.21608/rijs.2024.321164.1169>
- Aslam, H., Shakir, M., & Bugti, F. (2020). Influence of organisational justice and perceived organisational support on deviant behaviour: An Islamic perspective. *Al Qalam*, 25(1), 1–18.
- Atiku, O., & Wyk, E. (2024). Leadership practices and work engagement in higher education: The mediating role of job demands-resources. *Sage Open*, 14(1), 1–13. <https://doi.org/10.1177/2158244024123337>
- Azmy, A. (2019). Employee engagement factors in a higher education institution. *Binus Business Review*, 10(3), 187–200. <https://doi.org/10.1177/21582440241233378>
- Baiyeshea, D., & McGregor, F. (2024). Navigating evolving employment realities: An integrative model of psychological contract in contemporary workplaces. *SN Business and Economics*, 4(12), 1–38. <https://doi.org/10.1007/s43546-024-00751-1>
- Bal, P.M., De Lange, A.H., Jansen, P.G.W., & Van der Velde, M.E.G. (2008). Psychological contract breach and job attitudes: A meta-analysis of age as moderator. *Journal of Vocational Behavior*, 72(1), 143–159. <https://doi.org/10.1016/j.jvb.2007.10.005>
- Bruce, A., Zeynep, R., & Yalabik, Y. (2014). Work engagement, psychological contract breach and job satisfaction. *The International Journal of Human Resources Management*, 25, 2382–2400. <https://doi.org/10.1080/09585192.2013.876440>
- Cantwell, P. (2008). Census. In *Encyclopedia of survey research methods*. Sage Publishers.
- Chahar, B., & Hatwal, V. (2018). Human resource management practices and its impact on employee engagement and performance. *OPUS*, 9(1), 17–35.
- Crampton, S., & Hodge, J. (2007). Generations in the workplace: Understanding age diversity. *The Business Review*, 9(1), 16–23.
- De Cuyper, N., Mauno, S., Kinnunen, U., & Makikangas, A. (2011). The role of job resources in the relation between perceived employability and turnover intention: A prospective two-sample study. *Journal of Vocational Behaviour*, 78(2), 253–263. <https://doi.org/10.1016/j.jvb.2010.09.008>
- Deas, A. (2017). *Constructing a psychological retention profile for diverse generational groups in the higher education environment*. Unpublished doctoral thesis, University of South Africa.
- Deas, A., & Coetzee, M. (2022). A value oriented psychological contract: Generational differences amidst a global pandemic. *Frontiers in Psychology*, 13, 921184. <https://doi.org/10.3389/fpsyg.2022.921184>
- Deepa, K. (2024). Study on employee engagement in higher education institutions: A comparative study on private and public HEIs. *International Journal of Scientific Research in Engineering and Management*, 8(2), 1–6. <https://doi.org/10.55041/IJSREM28484>
- Deepalakshmi, N., Tiwari, D., Baruah, R., Seth, A., & Raman, B. (2024). Employee engagement and organisational performance: A human resource perspective. *Educational Administration: Theory and Practice*, 30(4), 5941–5948. <https://doi.org/10.53555/kuey.v30i4.2323>
- DelCampo, R., Haggerty, L., Haney, M., & Knippel, L. (2010). *Managing the multi-generational workforce: From the GI to the millennials* (1st ed.). Routledge.
- Dominiques-Salas, S., Rodriques-Dominiquez, C., Aros-Romero, A., Garcia-Iglesias, J., & Gomez-Salgado, J. (2022). Psychometric properties of the Utrecht Work Engagement Scale in a sample of active health care professionals in Spain. *Psychology Research and Behavior Management*, 15, 3461–3472. <https://doi.org/10.2147/PRBM.S387242>
- Freese, C., & Schalk, R. (2008). How to measure the psychological contract? A critical criteria-based review of measures. *South African Journal of Psychology*, 38(2), 269–286. <https://doi.org/10.1177/008124630803800202>
- Garcia, P.R.J., Armarmani, R., Bordia, P., & Restubog, S.L. (2021). When support is unwanted: The role of psychological contract type and perceived organisational support in predicting bridge employment intentions. *Journal of Vocational Behavior*, 125(3), 103525. <https://doi.org/10.1016/j.jvb.2020.103525>
- Gazi, A., Masud, A.I., Kaium, A., Bin Amin, M., Mahmud, P., & Senathirajah, A.R. (2025). Unravelling employee life satisfaction: Exploring the impact of psychological contract breach, self-efficacy, mental health, abusive supervision with work engagement and job satisfaction as mediators. *Cogent Psychology*, 12(1), 2455783. <https://doi.org/10.1080/23311908.2025.2455783>
- Geldenhuys, M., & Henn, C. (2017). The relationship between demographic variables and wellbeing of women in South African workplaces. *South African Journal of Human Resource Management*, 15, a683. <https://doi.org/10.4102/sajhrm.v15i0.683>
- Golata, E. (2016). Shift in methodology and population census quality. *Statistics in Transition New Series*, 17(4), 631–658. <https://doi.org/10.21307/stattrans-2016-044>
- Gresse, W., & Linde, B. (2020). The anticipatory psychological contract of management graduates: Validating a psychological contract expectations questionnaire. *South African Journal of Economic and Management Sciences*, 23(1), 3285. <https://doi.org/10.4102/sajems.v23i1.3285>
- Guest, D., & Conway, N. (2002). Communicating the psychological contract: An employer perspective. *Human Resource Management Journal*, 12, 22–38. <https://doi.org/10.1111/j.1748-8583.2002.tb00062.x>
- Guest, D.E. (2004). The psychology of the employment relationship: An analysis based on the psychological contract. *Applied Psychology: An International Review*, 53(4), 541–555. <https://doi.org/10.1111/j.1464-0597-2004-00187.x>
- Henkel, T., & Haley, R. (2020). A field study: The business of engaging higher education adjunct faculty. *Journal of Applied Business Research*, 36(2), 51–58. <https://doi.org/10.19030/jabr.v36i2.10341>
- Herrera, J., & De Las Heras-Rosas, C. (2021). The organisational commitment in the company and its relationship with the psychological contract. *Frontiers in Psychology*, 11, 609211. <https://doi.org/10.3389/fpsyg.2020.609211>
- Hess, N., & Jepsen, D. (2009). Career state and generational differences in psychological contracts. *Career Development International*, 14(3), 261–283. <https://doi.org/10.1108/13620430910966433>
- Jayasena, W.L., Jusoh, M., & Khatibi, A. (2023). Literature review: Factors affecting employee engagement in private and public sectors. *International Journal in Management and Social Science*, 11(3), 57–74.
- Johnston, A., & Davies, E. (2025). Academics' psychological contract: Applying discretionary effort. *Journal of Further and Higher Education*, 49(4), 524–538. <https://doi.org/10.1080/0309877X.2025.2467396>
- Kraak, J., Hansen, S., & Tekleab, A. (2024). In pursuit of impact: How psychological contract research can make the work-world a better place. *Group and Organisation Management*, 49(6), 1425–1453. <https://doi.org/10.1177/10596011241233019>
- Linde, B., & Gresse, J. (2020). The anticipatory psychological contract of undergraduates: Validating a psychological contract expectations questionnaire. *South African Journal of Economic and Management Sciences*, 23(1), 3285. <https://doi.org/10.4102/sajems.v23i1.3285>
- Majoni, C. (2014). Challenges facing university education in Zimbabwe. *Greener Journal of Education and Training*, 2(1), 20–24. <https://doi.org/10.15580/GJETS.2014.1.021714111>
- Mmako, M., & Schultz, C. (2016). An employee engagement framework for technical vocational education and training colleges in South Africa. *South African Journal of Higher Education*, 30(2), 143–163. <https://doi.org/10.20853/30-2-606>
- Morrison, E.W., & Robinson, S.C. (1997). When employees feel betrayed: A model of how contract violation develops. *Academy of Management Review*, 22(1), 226–256. <https://doi.org/10.2307/259230>
- Naidoo, V., Abarantyne, I., & Rugimbana, R. (2019). The impact of psychological contracts on employee engagement at a university of technology. *SA Journal of Human Resource Management*, 17, 1–11. <https://doi.org/10.4102/sajhrm.v17i0.1039>
- Negash, M., Lemma, T.T., & Samlan, G. (2019). Factors impacting accounting research output in developing countries: An exploratory study. *The British Accounting Review*, 51(2), 170–192. <https://doi.org/10.1016/j.bar.2018.09.003>
- Nethavani, A., & Maluka, H. (2020). Perceived organisational justice among academic employees at a selected higher learning institution. *Business and Management Review*, 11(2), 19–27. <https://doi.org/10.24052/BMR/V11N02/ART-03>

- Ng, T., & Feldman, D. (2009). Age, work experience and the psychological contract. *Journal of Organisational Behaviour*, 30(8), 1053–1075. <https://doi.org/10.1002/job.599>
- Ngobeni, E.K., & Bezuidenhout, A. (2011). Engaging employees for improved retention at a higher education institution in South Africa. *African Journal of Business Management*, 5(23), 9961–9970. <https://doi.org/10.5897/AJBM11.1381>
- Nhamo, G., Chapungu, L., & Dube, K. (2024). Universities and sustainable development goals localisation: Insights from academic staff in Zimbabwe. *Cogent Education*, 11(1), 2428877. <https://doi.org/10.1080/2331186x.2024.2428877>
- Opolot, J., & Maket, L. (2020). Psychological contract, employee engagement and employee performance. *International Journal of Academic Research in Business and Social Sciences*, 10(11), 886–903. <https://doi.org/10.6007/IJARBS/v10-11/7998>
- Phuthi, N. (2022). Quality-driven university curriculum reform in Zimbabwe: A critical conceptualisation of harmonised minimum bodies of knowledge. *Higher Education Evaluation and Development*, 16(2), 121–135. <https://doi.org/10.1108/HEED-01-2022-0002>
- Poisat, P., Mey, M., & Sharp, G. (2018). Do talent management strategies influence psychological contract within a diverse environment? *South African Journal of Human Resource Management*, 16, a1044. <https://doi.org/10.4102/sajhrm.v16i0.1044>
- Pradhan, R.K., Dash, S., & Jena, L.K. (2017). Do HR practices influence job satisfaction? Examining the mediating role of employee engagement in Indian public sector undertakings. *Global Business Review*, 20(1), 119–132. <https://doi.org/10.1177/0972150917713895>
- Psycones. (2006). *Final scientific report: Psychological contracts across employment situations*. Socio-Economic Research.
- Rasticova, M., & Hinzmann, R. (2024). Age-considerate employee engagement strategies in SMEs: Analysis of practices and research opportunities. *Business Perspectives*, 22(3), 27–38. [http://doi.org/10.21511/ppm.22\(3\).2024.03](http://doi.org/10.21511/ppm.22(3).2024.03)
- Roberts, R. (2020). Employee age and the impact on work engagement. *Strategic HR Review*, 19(5), 209–213. <https://doi.org/10.1108/SHR-05-2020-0049>
- Ronit, N., & Glickman, H. (2009). Sample surveys and censuses. *Science Direct*, 29(A), 539–565. [https://doi.org/10.1016/S0169-7161\(08\)00021-7](https://doi.org/10.1016/S0169-7161(08)00021-7)
- Rousseau, D.M. (1989). Psychological and implied contracts in organizations. *Employee Responsibilities and Rights Journal*, 2(2), 121–139. <https://doi.org/10.1007/BF01384942>
- Saks, A.M. (2019). Antecedents and consequences of employee engagement revisited. *Journal of Organisational Effectiveness: People and Performance*, 6(1), 19–38. <https://doi.org/10.1108/JOEPP-06-2018-0034>
- Sangeetha, V., Bhoopal, M., & Ravil, P. (2018). Employee engagement of teaching faculty members in higher education institutions – A descriptive study. *International Journal of Research Engineering Application and Management*, 4(7), 286–291. <https://doi.org/10.18231/2454-9150.2018.0957>
- Schaufeli, W.B., Shimazu, A., Hakanen, J., Salanova, M., & De Witte, H. (2017). An ultra-short measure for work engagement: The UWES-3 validation across five countries. *European Journal of Psychological Assessment*, 35(4), 577–591. <https://doi.org/10.1027/1015-5759/a000430>
- Sherman, M., Cooke, N., & Bowen, E. (2025). How partnerships helps libraries meet diverse community needs: A thematic analysis. *Public Library Quarterly*, 1–19. <https://doi.org/10.1080/01616846.2025.2496597>
- Shoko, M. (2014). *Employee engagement among workers in higher education in Zimbabwe: Implications for organisational commitment*. Thesis. University of Zimbabwe. Retrieved from http://alumni.uz.ac.zw/bitstream/handle/10646/3036/Shoko_Employee_engagement_among_workers_in_higher_education_institutions.pdf?sequence=1&isAllowed=y
- Shoko, M., & Zinyemba, A.Z. (2014). Impact of employee engagement on organisational commitment in national institutions of higher learning in Zimbabwe. *International Journal of Advanced Research in Management and Social Sciences*, 3(9), 255–268.
- Shukla, S. (2020). *Research methodology and statistics*. Rishit Publications.
- Smola, K., & Sutton, C. (2002). Generational differences: Revisiting generation work values for the new millennium. *Journal of Organizational Behavior*, 23, 363–382. <https://doi.org/10.1003/job.147>
- Snyman, A., & Ferreira, N. (2023). The psychological contract and staff retention among South African higher education employees: The influence of socio-demographics. *SA Journal of Human Resource Management*, 21, a2354. <https://doi.org/10.4102/sajhrm.v21i0.2354>
- Snyman, A., Coetzee, M., & Ferreira, N. (2022). The psychological contract and retention practices in the higher education context: The mediating role of organisational justice and trust. *South African Journal of Psychology*, 53(1), 1–14. <https://doi.org/10.1177/00812463221129067>
- Snyman, A., Ferreira, N., & Deas, A. (2015). The psychological contract in relation to employment equity legislation and intention to leave in an open distance higher education institution. *South African Journal of Labour Relations*, 39(1), 72–92. <https://doi.org/10.25159/2664-3731/5884>
- Swalhi, A., Zgoulli, S., & Hofaidhllaoui, M. (2017). The influence of organizational justice on job performance: The mediating effect of affective commitment. *Journal of Management Development*, 36(4), 542–559. <https://doi.org/10.1108/JMD-11-2015-0162>
- Tatjana, J., & Lugonjic, M. (2022). Sustaining employees' engagement and well-being in the 'new normal times'. *Journal of Human Resources Management Research*, 2022, 1–8. <https://doi.org/10.5171/2022.884507>
- Tshilongamulenzhe, M.C., & Takawira, N. (2015). Examining the gender influence on employees work engagement within a South African university. *Risk Governance & Control: Financial Markets & Institutions*, 5(2), 110–119. <https://doi.org/10.22495/rgcv5i2c1art5>
- Twenge, J.M. (2010). A review of the empirical evidence on generational differences in work attitudes. *Journal Business Psychology*, 25, 201–210. <https://doi.org/10.1007/s10869-010-9165-6>
- Uzhenyu, D. (2019). *Work stress, work engagement and service delivery within Zimbabwe's changing distance learning environment*. Thesis. University of South Africa. Retrieved from <http://uir.unisa.ac.za/handle/10500/25665>
- Van der Vaart, L., Linde, B., & Cockeran, M. (2013). The state of the psychological contract and employees' intention to leave: The mediating role of employee wellbeing. *South African Journal of Psychology*, 43(3), 356–369. <https://doi.org/10.1177/0081246313494154>
- Van der Walt, S., & Du Plessis, T. (2010). Age, diversity and the aging librarian in academic libraries in South Africa. *South African Journal of Libraries and Informational Sciences*, 76(1), 1–10. <https://doi.org/10.7553/76-1-81>
- Vishvapujita, S., & Vasantha, J. (2025). The influence of age on psychological contract: Understanding employee expectations across career stages. *International Journal of Research in Management*, 7(1), 357–362. <https://doi.org/10.33545/26648792.2025.v7.i1d.300>
- Wiechers, H., Coyle-Shapiro, J., & Ten-Have, S. (2019). Triggering psychological contract breach. In Y. Griep & C. Cooper (Eds.), *Handbook of research on the psychological contract at work* (pp. 272–290). Edward Elgar Publishers, Inc.
- Wonda, T.A., Engidaw, A.E., Ning, J., Kebab, M.A., & Belay, N.A. (2024). Does psychological contract fulfilment determine employees' work engagement? Empirical evidence from government sector employees. *Cogent Business & Management*, 11(1), 1–15. <https://doi.org/10.1080/23311975.2024.2402504>
- Zacher, H., & Rudolph, C.W. (2022). *Age and work: Advanced in theory, methods and practice* (1st ed.). Routledge.