

1 **Work Engagement in the South African Public Sector:** 2 **A Demographic Analysis**

3
4 *Work engagement has been recognised as a critical factor in enhancing*
5 *organisational performance, especially within the public sector. Despite*
6 *extensive research globally, work engagement within the South African public*
7 *sector remains underexplored, especially from a demographic perspective.*
8 *This study aims to explore the demographic factors that influence work*
9 *engagement in the South African public sector, focusing on employees' age,*
10 *gender, employment position, highest qualifications and duration of service*
11 *at their current employer. The South African public sector plays a crucial role*
12 *in national development, and understanding the factors that influence work*
13 *engagement can lead to improved employee performance, productivity, and*
14 *organisational commitment. By considering demographic variables, this*
15 *research seeks to fill gaps in existing literature and inform human resource*
16 *practices in the public sector. A quantitative research design was employed,*
17 *utilising a survey-based method to collect data from public sector*
18 *administrative employees. Demographic information was gathered alongside*
19 *work engagement metrics, analysed using statistical techniques to identify*
20 *correlations between demographic variables and work engagement levels.*
21 *The results show that age is significantly related to work engagement, while*
22 *no significant differences were found between work engagement and gender,*
23 *highest qualification, or length of service with the current employer. The*
24 *results suggest that tailored interventions and employee development*
25 *programs are necessary to enhance work engagement among different*
26 *demographic groups. Public sector managers can influence these insights to*
27 *create a more inclusive and supportive work environment that nurtures higher*
28 *engagement across diverse employee segments.*

29
30 **Keywords:** *Work Engagement, South Africa, Public Sector, Demographics*
31 *and Administrative Environment.*

32 33 34 **Introduction and Background**

35
36 The concept of work engagement has been extensively studied; however,
37 there is a lack of sufficient research that examines the relationship between work
38 engagement and biographical factors such as age, gender, and length of service,
39 particularly in the public sector. In the work environment work engagement is
40 evident when employees feel competent and confident in their job roles (Knight,
41 Patterson & Dawson, 2019). It is defined as “a positive, fulfilling, work-related
42 state of mind, typically marked by vigour, dedication, and absorption” (Xu, Liu
43 & Tang, 2022). Managers who motivate, support, and actively engage their staff
44 can reduce turnover, lower stress levels, and enhance employee commitment to
45 the workplace (Robinson, 2020). Positive work engagement leads to improved
46 employee well-being and performance, particularly in an principled
47 environment, which makes it essential to foster engagement while preventing
48 work overload (Robijn, Euwema, Schaufeli & Deprez, 2020). Work engagement

1 is highly valued in high-performing employees and is linked to both employee
2 well-being and effective teamwork (Robijn et al., 2020). Organizations must
3 recognize the importance of empowering their workforce to maximize
4 productivity and thrive in today's competitive global market (Munawar, Yousaf,
5 Ahmed & Rehman, 2022). Management must create a work environment that
6 encourages engagement, fosters loyalty, and promotes employee retention to
7 prevent turnover and enhance the organization's reputation (Saks, 2017). High
8 levels of engagement can boost focus, productivity, commitment, and creativity,
9 ultimately preventing stress from arising (Patrick & Mukherjee, 2018).

12 **Problem Statement**

14 Work engagement in South Africa's public sector is influenced by various
15 factors that impact employee productivity, job satisfaction, and organisational
16 performance. Previous studies have identified challenges such as resource
17 constraints, bureaucratic inefficiencies, and high levels of job stress within this
18 sector. For instance, research indicates that dissatisfaction with employment
19 relationships is notably high in South Africa's public sector, which can adversely
20 affect work engagement and, consequently, organisational performance.
21 Additionally, issues like inadequate technology, high labour turnover, and
22 difficulties in attracting skilled professionals further exacerbate the challenges
23 faced by human resource management in achieving organisational effectiveness
24 within state-owned enterprises. Addressing these challenges is crucial for
25 enhancing work engagement and improving service delivery in South Africa's
26 public institutions.

29 **Research Purpose**

31 Building on the above, the study aimed to assess whether there were
32 statistically significant differences in work engagement based on:

- 34 • race
- 35 • gender
- 36 • highest education qualification and
- 37 • duration of service at current employer

40 **Literature Review**

42 *Theoretical Framework*

44 The theory of organisational behaviour in relation to work engagement in
45 the public sector has two conspicuous central directions: it is orientated towards
46 human resources and towards achieving organisational results (Nasilloyevich,

2020). In the public sector, the theory of organisational behaviour is used in management not only to reflect reality and explain it but also to influence the assumptions of employees in the organisation (Butts & Rich, 2018). Organisational behaviour theory contributes to understanding engagement with one's work, as well as the aspects that can motivate employees, strengthen work engagement and assist organisations to create a solid ethical relationship of trust with employees (Prabhu, 2020).

Work Engagement

The purpose of work engagement is to foster a positive and fulfilling psychological state that enhances employee well-being, motivation, and overall performance. When employees are highly engaged, they exhibit greater vigour, dedication, and absorption in their work, which not only benefits their individual productivity but also improves organizational outcomes (Xu, Liu & Tang, 2022). Work engagement serves as a critical driver in reducing turnover, mitigating stress, and increasing employee commitment, especially in environments where motivation may be low (Robinson, 2020). Moreover, in a supportive work environment, engaged employees contribute to a culture of collaboration, innovation, and higher job satisfaction, ultimately improving the quality of service and organizational effectiveness (Saks, 2017).

Managers who engage, inspire, strengthen and connect with employees have the ability to reduce employee turnover and burnout and to increase the levels of work engagement (Robinson, 2020). Work engagement has positive consequences in terms of the well-being and performance of employees in a decent work environment; hence, work engagement should be stimulated and work overload prevented (Robijn et al., 2020). High levels of work engagement may encourage employees to become more absorbed, productive, committed and creative and will prevent the development of stress (Patrick & Mukherjee, 2018). When employees are not engaged in their work, it causes a disconnect between their effort and their organisational effectiveness, which significantly affects an organisation's financial performance (Saks, 2017). Work engagement and organisational commitment positively impact employees' levels of energy and enthusiasm, pride in their work, job performance, commitment and health (Jnaneswar & Ranjit, 2023).

Strengthens Work Engagement

Employees who are motivated learn new skills and take advantage of possibilities and are involved with volunteer work and mentorship. On the other hand, disconnected workers are less industrious and less dedicated to their jobs (Karaferis *et al.*, 2022). Conditions that strengthen work engagement include ethical leadership, communication, support, trust, work balance and a reward system (Schaufeli, 2021). Work engagement continues to thrive and is becoming a more significant component of an organisation's success, as well as a connection built on trust and ethics among management and employees and is

1 most likely to add favourably to a satisfied workforce (Knight, Patterson &
2 Dawson, 2019).

3 Through their own behaviour as well as their interpersonal interactions,
4 ethical leaders display applicable conduct (Ahmad & Gao, 2018). Ethical
5 leadership has an impact on organisational effectiveness and creates a productive
6 work environment (Cheteni & Shindika, 2017). In addition, ethical leaders offer
7 psychological empowerment to employees, provide a sense of meaning to their
8 work, allow them independence and control over their jobs, offer constructive
9 feedback and indicate the impact of tasks or attainments of goals (Ahmad & Gao,
10 2018). To maintain credibility, leaders must engage in appropriate behaviour
11 such as openness and honesty and treat all employees fairly (Cheteni & Shindika,
12 2017). Ethical leaders are those with moral fibre and a sense of justice and
13 proportion and lead by example (Guo, 2022). Similarly, ethical leaders gain
14 employee's trust by engaging in unambiguous ethics and by strengthening
15 support and aligning organisational decisions with values (Cheteni & Shindika,
16 2017). The strengtheners of work engagement are discussed next.

17 Organisational Communication

18 Organisational communication is the sending and receiving of messages
19 among interrelated individuals and stakeholders within and outside a certain
20 context, with the intention of achieving both personal and group objectives. The
21 type of an organisation has a significant impact on the context and cultural
22 aspects of organisational communication (Hutasuhut, Mesiono, Isa, Khurniawan
23 & Suyatmika, 2023). Organisational communication encompasses everything
24 from individual to mass communication and focuses on fostering connections
25 with internal team members and relevant outside partners. Internal operational
26 communication is done verbally, electronically, or in writing to implement the
27 organisations' operational plans. External communication links to work
28 purposes related to the general public (Kristina, 2020).

29 Administrative processes are fostered through the communication of
30 suitable beliefs and standards and is vital for effective work engagement and to
31 achieve organisational goals. An important component of communication in
32 business is the governing value system of the organisation. Organisational
33 communication is key in the work environment (Rajest *et al.*, 2022).
34 Communication is an integral part of effective management practices within the
35 workplace and the organisation's work atmosphere should be created to promote
36 direct and honest discussion of ethical issues, taking action to solve them, and
37 shielding employees from unfavourable effects (Cheteni & Shindika, 2017).
38 Thus, knowing their staff members might be challenging for managers on an
39 individual level, but, with good communication, managers can create a profile,
40 relate, observe and assess employee's achievement within the organisation
41 (Tuukkanen, Wolgsjö & Rusu, 2022). When good and effective organisational
42 communication is not prioritised in the establishment it negatively affects labour
43 relations. Organisational communication is the process through which
44 organisations portray, convey, and construct the environment, culture, values,
45

1 and objectives that define the organisation and its members (Reddy & Gupta,
2 2020:3793).

3

4 Organisational Support

5 In the organisational environment employees are perceived as assets and
6 seen as resources necessary for organisational success. However, to achieve
7 competitive advantage and relevance, management must effectively and
8 optimally provide sufficient organisational support to their employees
9 (Olowodunoye & Owolabi, 2019). Regarding feeling appreciated and
10 recognised, organisational support provides important insight into the interaction
11 between employees and organisations. Therefore, management should be
12 mindful of how a person contributes to the organisation and consider their
13 necessities and expectations relating to personal development (Suárez-
14 Albanchez *et al.*, 2022). Organisational support assists employees in shaping
15 their identification within an organisation (Jamal, Anwar & Khan, 2022).
16 Employees' tendency to reciprocate organisational treatment would depend on
17 their degree of agreement and identification with the organisation's strategy and
18 objectives. The expectation of reciprocity is based on two principles: that
19 individuals who have benefited should return the favour and those persons who
20 have assisted individuals should not be hurt by others (Satardien, Jano &
21 Mahembe, 2019).

22 Organisational support can be perceived as those benefits that an employee
23 identifies to be enjoying in being a member of an organisation. Benefits may be
24 in the form of financial and or moral benefits compared with the input from the
25 employee to the organisation (Olowodunoye & Owolabi, 2019). Thus,
26 organisational support is one of the strongest motivating variables in the lives of
27 employees, such as innate incentives, when individual are satisfied with their
28 core psychological needs of proficiency, self-sufficiency and feeling that one is
29 in the right place, they feel inspired and driven. Employees form their own
30 opinions on the organisation's support, which strengthens their desire to remain
31 with the organisation (Engelbrecht & Samuel, 2019).

32 Perceived organisational support (POS) is defined as “the degree of
33 employee’s belief in the value placed by the organisation on their inputs and how
34 much the organisation cares about their well-being and the fulfillment of socio-
35 emotional needs by the organisation” (Olowodunoye & Owolabi, 2019). POS is
36 concerned with how much weight employees believe their contributions have
37 and how much the company values their wellbeing while they are working
38 (Engelbrecht & Samuel, 2019). Higher levels of employment are associated with
39 POS performance, proactive and positive behavioural outcomes for both
40 employees and the organisation (Maan, Abid, Butt, Ashfaq & Ahmed, 2020).
41 Hereafter, within the organisation POS is influenced by a variety of aspects. The
42 aspects include financial or tangible aspects (salary increase, subsidies and
43 bonus) and non-financial aspects (praise and good comments). Employees do
44 not only perceive an organisation to be supportive in terms of monetary value
45 only (Kailin, 2019). admiration, acknowledgment, and accomplishment and
46 disputes (Ibitomi *et al.*, 2022).

Organisational Trust

Promoting employee's trust in an organisation is the ideal goal of any employer (Yu , Mai, Tsai & Dai, 2018. In the age of the 4th industrial revolution, satisfying the higher order needs of employees is a priority and is primarily realised through establishing rapport and a strong relationship of trust amongst the employees and the organisation (Jena, Pradhan & Panigrahy, 2017). Due to changes in the social, economic and political climate, globalisation has made organisations introduce numerous changes more rapidly than ever, and employees are expected to adapt within a shorter period while integrating the change into their responsibilities to ensure organisational goal achievement and continuity (Sinambela, Darmawan & Mendrika, 2022). Employees' readiness to be open and susceptible to top management is referred to as organisational trust (Qin & Men, 2022). A party's readiness to be exposed to the activities of another party because they have faith in the party to take a certain action that is central to their relationship, or because they have no way of monitoring or controlling them, is another definition of organisational trust (Qin & Men, 2022).

The belief of employees and stakeholders, that the organisation is making an effort to fulfil their agreements, whether overt or covert is organisational trust. Trust promotes organisational relationships and is essential to forging enduring relationships with stakeholders and employees that add value, but is an essential component to strengthen internal relations (Gider, Akdere & Top, 2019). Trust may be considered as a sort of social capital that lowers transaction costs, fosters spontaneous interaction among members, and makes it easier to defend against organisational authority in the appropriate ways (Ozmen, 2018).

Managerial trust comprises being available, capable, reliable, discreet, honest, loyal, open, capable of keeping promises and receptive (Ozmen, 2018). Any barriers to lack of organisational trust could cause and encourage stress related illnesses, doubt with regard to organisational policies and systems, employee dignity and commitment (Rabelo, Holland & Cortina, 2019). Trust is significant in building a working relationship between the manager and employee, and has a significant impact on whether an employee will view the workplace favourably (Men, Qin & Jin, 2022). A lack of openness, unfairness, inconsistencies and unpredictable actions could diminish trust which will lead to employees feeling unsafe due to situations that are unclear and unpredictable (Margolis, 2019).

Work-Life Balance

Subsequent to changes in the workplace, the need for balance between an employee's work and personal life should be priority (Oludayo , Falola, Obianuju & Demilade, 2018). Employees regard work which is defined as a deliberate human activity that entails physical or mental labour and is not only done for fun but also for monetary or symbolic purposes. A work-life balance in organisations concerns employees' interaction with work related activities be it social or personal development (Oludayo *et al.*, 2018). This enables an organisation to create a productive work culture where signs of work-life conflict are minimised

1 and effectively managed, likewise, work-life balance is attained where there are
2 common benefits for employees and the organisation (Mesimo-Ogunsanya,
3 2017).

4 An individual having enough autonomy and control over one's schedule and
5 place of employment to allow one to fulfil obligations both inside and outside of
6 paid employment is referred to as work-life balance (Wilkinson, Tomlinson &
7 Gardiner, 2018). Additionally, work-life balance increases autonomy and
8 strengthen employees' perception they work for a fair company that values them.
9 When their subordinates practice work-life balance, managers may be more
10 likely to approve of or create informal agreements to help their staff balance their
11 duties at work and at home (McDowall & Kinman, 2018). To employees this
12 will be a sign that indicates that the company appreciates assisting employees in
13 meeting their obligations (McDowall & Kinman, 2018). In the work
14 environment, the amount of time spent working and when it is done are
15 important factors that affect how long employees are exposed to various working
16 circumstances as well as how much time is available for rest, pleasure, or other
17 personal obligations (Brauner, Wohrmann, Frank & Michel, 2019). All
18 employees should be concerned with the ability to balance work and personal
19 life at different positions in the administrative environment. Employees who are
20 single, have a young child or children with special needs and are experiencing
21 problems with balancing work with personal lives are examples of work-life
22 balance to be addressed (Wilkinson, Tomlinson & Gardiner, 2018). Work-life
23 balance is a vital aspect of the lives of all employees in the public sector. Non-
24 existence of work-life balance could cripple the financial standing of the
25 organisation. On the contrary, the introduction of work-life policies could
26 improve financial performance, competitive advantage and survival of the
27 organisation (Wolor, Kurnianti, Zahra & Martono, 2020).

28 29 *Work Engagement Challenges*

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31 Work engagement challenges may deny the employee off vigour, dedication,
32 and absorption and may lead to lower performance, job dissatisfaction and
33 counterproductivity across sectors (Borst, 2018). Employee neglect and the
34 inability of having a thorough understanding of the idea of work engagement
35 inside an organisation and the subsequent benefits, may pose a threat to an
36 organisation (Muhamad *et al.*, 2023). Public sector managers must have an in-
37 depth understanding of factors that may impede work engagement and avoid
38 operating with inaccurate assumptions of what they think employees prefer in
39 order to be productive, otherwise this may result in organisational ineffectiveness
40 (Knight, Patterson & Dawson, 2017). Because each public servant has a unique
41 personality and may find it challenging to function in a variety of organisational
42 situations, these personality differences may negatively affect how engaged they
43 are at work. Public servants mentioned that senior management in the public
44 sector do not communicate and are highly engaged with their own work and
45 meeting their own job targets, whilst the subordinates are least involved or
46 engaged with the organisation (Garg, Dar & Mishra, 2018). It is mentioned that

1 the problem could be attributed to a lack of appropriate procedures for retaining
 2 employees and identifying the true drivers of job satisfaction that encourage
 3 employee engagement at lower levels (Sayeeswari & Krishnaraj, 2022:6721).

4 5 6 **Hypotheses Development**

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8 In this study, four research hypotheses were developed and investigated.
 9 The development of each of these hypotheses is discussed next.

10
11 H1: There are significant differences relating to age and work engagement.

12 H2: There are no significant differences relating to gender and work engagement.

13 H3: There are no significant differences relating to highest qualification and work
 14 engagement.

15 H4: There are no significant differences relating to duration of service and work
 16 engagement.

17
18 According to a 2019 study, there is a connection between age and work
 19 engagement (Hakanen, Ropponen, Schaufeli & De Witte, 2019). In affirmation,
 20 a study conducted in 2019, confirms that significant differences relating to
 21 gender and work engagement do exist (Tsaur, Hsu & Lin, 2019). Another study
 22 found significant differences between highest qualification and work
 23 engagement (Hakanen *et al.*, 2019). Further, Contrary to this study a study
 24 conducted in the Czech Republic shows that there is a significant relationship
 25 between duration of service and work engagement (Hinzmann, Rašticová &
 26 Šácha, 2019).

27 28 29 **Research Methods**

30
31 Quantitative research methodology was applied. For the study purpose,
 32 existing questionnaires related to work engagement was adapted and used. To
 33 ensure maximum respondent participation, data were collected from the sample
 34 group via online questionnaires as well as paper-based questionnaires delivered
 35 to the respondents by a fieldworker. The statistical data gathered were then
 36 analysed and conclusions were drawn. Frequencies were used to show
 37 distribution of responses through descriptive methods.

38 *Population*

39
40 The inclusion criteria involved permanently employed employees in the
 41 public sector departments. The respondents comprised administrators,
 42 secretaries, executive secretaries and personal assistants. Managers such as
 43 directors, deputy directors, assistant directors, heads of department and
 44 supervisors also participated. Altogether, the study comprised $N1 = 15\ 203$
 45 administrators and $N2 = 2473$ managers.

1 *Sampling*

2

3 The study employed nonprobability convenience sampling to collect
 4 information from participants who were easily accessible to the researcher. Only
 5 permanent employees employed in the selected public sector national
 6 departments participated in this study. The study excluded employees who were
 7 employed temporarily and on a part-time basis. The sample was representative
 8 of the population. With the total population of $N1 = 15\,203$ administrators and
 9 $N2 = 2473$ managers, the researcher used the minimum sample size of $n1 = 375$
 10 for administrators and $n2 = 333$ for managers, calculated according to Raosoft®
 11 calculator (Raosoft® Inc. USA), with a 5% margin of error and a 95%
 12 confidence interval ($p \geq 0.5$). The demographic profiling of the respondents is
 13 presented in Table 1.

14

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16 **Research Approach and Design**

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18 The quantitative approach was deemed the most suitable for this research,
 19 as it allows for the quantification and analysis of variables, as well as the
 20 assessment of relationships between different variables (Apuke, 2017). Research
 21 design is a map indicating how the study is carried out and the method used to
 22 empower the researcher in meeting the study objectives (Abutabenjeh & Jaradat,
 23 2018).

24

25 *Research Instrument*

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27 The study made use of the work engagement instruments (Schaufeli,
 28 Bakker & Salanova, 2006), which was a standard and an economical way of
 29 gathering information, covering a wide range of respondents quickly without
 30 pressuring intended participants (Klok & Connors, 2019).

31

32 *Data Collection Procedure*

33

34 A survey research design was used for data collection. An online
 35 questionnaire was administered to gather consistent data from all participants in
 36 a sample from the South African public sector. The study included a total of 423
 37 respondents, with 283 administrators $n1$ and 140 managers $n2$.

38 *Validity and Reliability*

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40 Validity refers to the extent to which the research findings accurately
 41 measure what the study aims to assess (Sürücü & Maslakçı, 2020b:296). The
 42 content validity of the survey was improved by having a subject matter expert in
 43 statistics review the questions (Rothmund et al., 2023:2). To ensure construct
 44 validity, a factor analysis was conducted. Prior to data collection, a pilot study
 45 was carried out to confirm the instrument's content validity. The purpose of the
 46 pilot study was to assess the effectiveness of the research tool and identify any

1 issues that could compromise the reliability and validity of the results (Ahmad
2 & Ahmad, 2018). During the pilot study, 22 questionnaires were tested by
3 administrators to ensure potential errors and obstacles were identified and
4 corrected before the actual data collection began. Convenience sampling was
5 used for the pilot study.

6 Reliability refers to the consistency of study findings, ensuring they can be
7 replicated and produce the same results within the population being studied
8 (Sürücü & Maslakçı, 2020a:2707). The reliability of the responses was confirmed by
9 calculating internal consistency using Cronbach's alpha coefficient. This coefficient
10 assesses the reliability of multiple items in a survey, ensuring they consistently
11 measure the same characteristic. A Cronbach's alpha value of 0.7 or above is
12 considered acceptable (Amirrudin, Nasution & Supahar, 2021).

13 14 *Data Analysis*

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16 Descriptive and inferential statistics were employed to examine the data and
17 gain insights into the research variables. Numeric data responses were first
18 plotted on the Microsoft Excel spreadsheet and later analysed by using Statistical
19 Package for the Social Sciences (SPSS 28). Correlation analysis was applied to
20 measure the relationships among the variables, and the value of the Pearson
21 correlation coefficient was computed. For the purpose of this study, ANOVA
22 and t-test was applied to compare the demographics of constructs. As a means
23 to discover whether there were any noteworthy variances among demographic
24 groupings in terms of the highest qualification, gender as well as age, relative to
25 the study's (Liu & Wang, 2021).

26 27 28 **Ethical Considerations**

29
30 The Faculty of Management Sciences Research Ethics Committee of
31 Tshwane University of Technology gave permission to conduct the study (Ref
32 #: FCRE2019/ FR/12/002-MS [2]). The researcher stated on the informed
33 consent form that information obtained during the course of this study would be
34 kept strictly confidential; the identity of the respondents and the department
35 would not be revealed while the study was being conducted or when the results
36 were reported. To ensure anonymity, the researcher mentioned on the informed
37 consent form that responses were completely anonymous and that no one outside
38 the study panel would be able to associate any response with the respondent's
39 department in any recognisable way. The rights of the respondents were also
40 made clear on the informed consent form, namely that participation in the study
41 was entirely voluntary and that respondents had the right to withdraw at any
42 stage without any penalty or future disadvantage. The researcher adhered to the
43 ethical principles of the Faculty of Management Sciences Human Research
44 Ethics Committee of Tshwane University of Technology.

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1 Results

2

3 In order to summarise, organise and clarify large numbers of data,
4 descriptive and inferential statistics and analysis were used (Kaliyadan &
5 Kulkarni, 2019:82). For the purpose of illustrating observations in the study,
6 descriptive statistics was presented via graphs and tables in order to demonstrate
7 percentages and frequencies. A total number of 423 ($N = 423$) respondents
8 participated in the study.

9

10 *Demographic Profile*

11

12 Section A lists the biographical information and a demographic profile of
13 respondents. The biographical information relates to the respondent's age group,
14 gender, position of employment, highest educational level and duration spent
15 working for the present employer. The frequency distribution of the
16 demographic factors is shown in Table 1 and provides the response frequencies
17 and percentages. Section C, listed the items of work engagement.

18

19 **Table 1.** *Demographics profiling of respondents*

VARIABLE	FREQUENCY (N)	PERCENTAGE (%)	CUMULATIVE (%)
1. Age			
22-29 years	59	13.9	13.9
30-39 years	127	30.0	44.0
40-49 years	159	37.6	81.6
50 years or older	78	18.4	100.0
Total	423	100	
2. Gender			
Male	161	38.2	38.2
Female	261	61.8	100.0
Missing	1	0.2	
Total	423	100	
3. Administrative position			
Administrator	190	73.1	73.1
Secretary	23	8.8	81.9
Executive secretary	26	10.0	91.9
Personal assistant	21	8.1	100.0
Total	260	100	
4. Manager position			
Manager	26	17.8	17.8
Director	22	15.1	32.9
Deputy director	40	27.4	60.3
Assistant director	41	28.1	88.4
Head of department	4	2.7	91.1
Supervisor	13	8.9	100
Other (Q3)	14	3.3	
Other (Q4)	3	0.7	
Total	423	100	
5. Highest education qualification			
Grade 12/Matric	20	4.8	4.8
Certificate (1-year qualification)	14	3.3	8.1
Diploma (3-year qualification/N6)	96	22.9	31.0

VARIABLE	FREQUENCY (N)	PERCENTAGE (%)	CUMULATIVE (%)
Bachelor's/Advance diploma/BTech	156	37.2	68.3
Honours degree/Postgraduate diploma	76	18.1	86.4
Master's degree/MTech	52	12.4	98.8
Doctoral degree/DTech	5	1.2	100
Other	4	0.9	
Total	423	100	
6. Duration of service at current employer			
Less than 1 year	21	5.0	5.0
1-4 years	79	18.7	23.6
5-9 years	93	22.0	45.6
10-19 years	162	38.3	83.9
20-29 years	57	13.5	97.4
30 years or more	11	2.5	100.0
Total	423	100	

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Age distribution

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Gender distribution

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Administrative positions

The respondents had to indicate the administrative position in which they worked. Administrative positions illustrate that most of the responders were administrators at 73.1%, followed by those occupying the position of executive secretary at 10.0%. 8.8% accounted for the respondents occupying the position of a secretary and personal assistant represented 8.1%. The results perceive that

1 the managers in the South African public sector receive support from
 2 administrators, contrary to an investigation that was carried out in the United
 3 Kingdom that demonstrated that the public sector managers receive insufficient
 4 support from administrators (Cregård & Corin, 2019).

6 Managers positions

7 The respondents had to indicate the managerial position they occupied. The
 8 highest category of 28.1% were respondents occupying the position of assistant
 9 director, succeeded by 27.4% representing deputy directors. A total of 17.8% of
 10 respondents accounted for managers, followed by 15.1% that occupied the
 11 director portfolio, 8.9% was supervisors and 2.7% represented the head of
 12 departments. The results were aligned to a study conducted in 2019 in Nigeria,
 13 which indicates that the public sector was putting more efforts on career
 14 development of the young workforce by grooming, mentoring and examining
 15 their behavioural patterns and values in preparation for higher management
 16 positions (Egbuta & Akinlabi, 2019).

18 Highest education qualification

19 The respondents indicated their highest educational qualification. It is
 20 significant to note that the vast majority of respondents indicates that 91.9%
 21 possessed a diploma, degree, or postgraduate degree. Respondents with Grade
 22 12/Matric (4.8%) and those with a Certificate (3.3%) represented a minority. It
 23 was concluded that the majority of respondents who completed the questionnaire
 24 had tertiary qualifications and understood the objectives of the questionnaire and
 25 the research. This could prove that the public sector was taking corrective
 26 measures and has assumed the role of seriously considering qualifications when
 27 employing staff. The improvement can be compared to the results demonstrated
 28 by a study conducted in the public sector in 2020 which showed a lower
 29 percentage of 74.3% in terms of respondents possessing a diploma, degree, or
 30 postgraduate degree (Mokoena, 2020).

32 Duration of service at the current employer

33 The respondents had to indicate their years of service at the current
 34 employer. Of interest to note was that 54.3% (38.3%+13.5%+2.5%) of the
 35 respondents had ten or more years of employment. A figure of 45.7%
 36 (5%+18.7%+22.0%) of the respondents were employed for nine or less years.
 37 The inclusion criteria did not depend on the number of years in service, but on
 38 the fact that only permanent employees in the selected public sector national
 39 departments participated in this study. The study excluded employees who were
 40 employed temporarily and on a part time basis. This was an indication that the
 41 majority of experienced employees remain in the employ of the public sector for
 42 an extended period, most of the time more than a decade. In contrast was a study
 43 conducted in 2021 indicating that the employees in the 21st century are changing
 44 and continually adjusting, with the older generation gradually going on
 45 retirement and the younger groups getting employed in the public sector and
 46 beginning their professional careers (Muzondiwa, 2021).

1 A reliability analysis was performed on the work engagement factors.
 2 Results indicate that the first factor was clearly dominant, with only 7 %
 3 explained by the second factor. The factors were not clearly separated with no
 4 common theme being evident, therefore it was suggested that work engagement
 5 be used as a single factor. Table 2 illustrates that work engagement had a
 6 satisfactory Cronbach's alpha of 0.932 (Sinaga, Gaol & Ichsan, 2021).

7
 8 **Table 2.** *Reliability analysis of work engagement factor*

CRONBACH'S ALPHA	CRONBACH'S ALPHA BASED ON STANDARDISED ITEMS	N OF ITEMS
0.932	0.933	18

9
 10 Table 3 demonstrates that the inter-Item correlations' mean value was 0.434.
 11 and within an acceptable range of between the levels of 0.1 and 0.5, meaning
 12 that the result was reliable (Clark & Watson, 1995; Abubakar, Wimmer,
 13 Bereznicki, Dwan, Black, Bezabhe & Peterson, 2020).

14
 15 **Table 3.** *Summary of inter-item correlations of work engagement factor*

	MEAN	MINIMUM	MAXIMUM	RANGE	MAXIMUM/ MINIMUM	VARIANCE	N OF ITEMS
Inter-Item Correlations	0.434	0.206	0.875	0.669	4.253	0.014	18

16
 17 Table 4 depicts the total statistical analysis of work engagement.

18
 19 **Table 4.** *Summary of Item-total statistics analysis of work engagement*

	SCALE MEAN IF ITEM DELETED	SCALE VARIANCE IF ITEM DELETED	CORRECTED ITEM-TOTAL CORRELATION	SQUARED MULTIPLE CORRELATION	CRONBACH'S ALPHA IF ITEM DELETED
1. At my job, I feel active.	48.50	61.786	0.623	0.550	0.928
2. I find the work that I do full of meaning.	48.45	60.933	0.722	0.808	0.926
3. I find the work that I do full of purpose.	48.43	61.532	0.682	0.803	0.927
4. Time flies when I am working.	48.51	60.783	0.676	0.514	0.927
5. At my job, I feel energised.	48.70	60.205	0.698	0.613	0.926
6. I am enthusiastic about my job.	48.51	59.796	0.778	0.676	0.925
7. When I am working, I forget everything else around me.	48.78	61.529	0.558	0.399	0.930

	SCALE MEAN IF ITEM DELETED	SCALE VARIANCE IF ITEM DELETED	CORRECTED ITEM-TOTAL CORRELATION	SQUARED MULTIPLE CORRELATION	CRONBACH'S ALPHA IF ITEM DELETED
8. My job inspires me.	48.64	59.009	0.783	0.691	0.924
9. When I get up in the morning, I feel like going to work.	48.83	59.258	0.676	0.571	0.927
10. I feel happy when I am working intensely.	48.60	61.331	0.631	0.469	0.928
11. I am proud of the work that I do.	48.43	60.700	0.700	0.569	0.926
12. I am immersed (absorbed) in my work.	48.69	60.724	0.691	0.551	0.927
13. I can continue working for very long periods at a time.	48.67	59.925	0.693	0.527	0.926
14. To me, my job is challenging.	48.88	61.589	0.495	0.328	0.931
15. I get carried away when I am working.	48.83	61.782	0.559	0.406	0.930
16. At my job, I feel mentally and physically resilient.	48.73	61.798	0.592	0.439	0.929
17. It is difficult to detach myself from my job.	49.04	62.844	0.447	0.281	0.932
18. At my work, I always persevere, even when things do not go well.	48.46	63.422	0.439	0.325	0.932

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Table 4 shows the adjusted item-total score relationships fluctuated between a high of 0.783 to a low of 0.439. Table 4 shows the adjusted item-total score relationships and implies that one item was in relation to the results on all other scale items (Maroufizadeh, Riazi, Lotfollahi, Samani & Amini, 2019).

T-Test ANOVA Analysis

The t-test and ANOVA intend to observe whether group means vary from one another. Where two groups are compared the t-test was used, however,

1 where more than two groups were compared ANOVA can be used (Kang, 2021).
 2 In other words, the t-test is a method that establishes whether two samples were
 3 statistically diverse from each other, although ANOVA determines whether
 4 three or more samples were statistically different from each other. Both methods
 5 look at the difference in means distributions across groups, yet the methods used
 6 to determine the statistical implication was different (Mishra, Singh, Pandey,
 7 Mishra & Pandey, 2019).

8 Demographically, different groups in relation to gender and age were
 9 compared in terms of perceptions using t-tests and ANOVAs to establish if there
 10 were demographic differences. The results of gender are demonstrated in Tables
 11 5 – 6.

12 **Table 5. Gender**

GROUP STATISTICS					
STATE YOUR GENDER		N	MEAN	STD. DEVIATION	STD. ERROR MEAN
Work engagement	Male	161	2.8626	0.42858	0.03378
	Female	259	2.8628	0.47574	0.02956

14

Table 6. *Independent samples t-test: Gender*

INDEPENDENT SAMPLE TEST											
		LEVENE'S TEST FOR EQUALITY OF VARIANCES		T-TEST FOR EQUALITY OF MEANS							
		F	SIG.	T	DF	SIGNIFICANCE		MEAN DIFFERENCE	STD. ERROR DIFFERENCE	95% CONFIDENCE INTERVAL OF THE DIFFERENCE	
						ONE-SIDED P	TWO-SIDED P			LOWER	UPPER
Work engagement	Equal variances assumed	2.616	0.107	-0.003	418	0.499	0.997	-0.00016	0.04599	-0.09056	0.09024
	Equal variances not assumed			-0.004	365.859	0.499	0.997	-0.00016	0.04489	-0.08843	0.08811
	Equal variances not assumed			-0.948	346.775	0.172	0.344	-0.02607	0.02750	-0.08016	0.02803

ONLY FOR

The mean scores and standard deviations of the components were displayed in Tables 5 and 6 where male and female perceptions were compared using an independent sample t-test. The Tables depicted that there were no significant differences between genders since Sig values were all >0.05 .

Table 7 displays the correlations between qualification and length of service.

Table 7. *Correlations of qualifications and length of service with factors*

			STATE YOUR HIGHEST QUALIFICATION	HOW LONG HAVE YOU BEEN WORKING IN YOUR CURRENT DEPARTMENT	WORK ENGAGE- MENT
Spearman's rho	State your highest qualification	Correlation Coefficient	--		
		Sig. (2-tailed)			
	How long have you been working in your current department?	Correlation Coefficient	-0.005	--	
		Sig. (2-tailed)	0.914		
	Work engagement	Correlation Coefficient	0.030	-0.016	--
		Sig. (2-tailed)	0.535	0.750	
Sig. (2-tailed)		0.668	0.628	0.000	

** Correlation is significant at the 0.01 level (2-tailed).

Table 7 demonstrates that neither highest qualification nor length of service correlates significantly with any of the factors, all the Sig values were above 0.05. Therefore, it was evident that there were no existing correlations. Factors highlighted in dark grey were not relevant for this analysis, the focus was only on highest qualification and length of service.

Tables 8 - 10 illustrates the results pertaining to age.

Table 8. *Descriptive statistics: mean score for the age groups*

DESCRIPTIVES									
		N	MEAN	STD. DEVIATION	STD. ERROR	95% CONFIDENCE INTERVAL FOR MEAN		MINIMUM	MAXIMUM
						LOWER BOUND	UPPER BOUND		
Work engagement	22 - 29 years	59	2.8450	0.47763	0.06218	2.7206	2.9695	1.00	4.00
	30 - 39 years	126	2.8238	0.50018	0.04456	2.7356	2.9120	1.33	3.94
	40 - 49 years	158	2.8820	0.43340	0.03448	2.8139	2.9501	1.56	3.94
	50 + years	78	2.9088	0.42385	0.04799	2.8133	3.0044	1.11	3.94
	Total	421	2.8644	0.45841	0.02234	2.8205	2.9083	1.00	4.00

Table 9. *One-way ANOVA per age groups*

ANOVA						
		SUM OF SQUARES	DF	MEAN SQUARE	F	SIG.
Work engagement	Between Groups	1.283	3	0.428	3.199	0.023
	Within Groups	55.994	419	0.134		
	Total	57.276	422			

Tables 8 - 9 depict the results of the t-test and ANOVA for age groups. The one-way ANOVA test was applied to compare age groups on work engagement to establish whether there was a considerable age difference. The results in Table 9 does not shows a significant difference ($p < 0.05$) between age and work engagement (0.023). The results suggest that age does have a important role in the observation of the importance of work engagement.

The effect size for ANOVA results are depicted in Table 10.

Table 10. *Effect size for ANOVA*

ANOVA EFFECT SIZES ^{A,B}				
		POINT ESTIMATE	95% CONFIDENCE INTERVAL	
			LOWER	UPPER
Work engagement	Eta-squared	0.005	0.000	0.019
	Epsilon-squared	-0.002	-0.007	0.012
	Omega-squared Fixed-effect	-0.002	-0.007	0.012
	Omega-squared Random-effect	-0.001	-0.002	0.004
	Omega-squared Fixed-effect	0.014	-0.007	0.042

A. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

B. Negative but less biased estimates are retained, not rounded to zero.

To interpret and quantify the estimated Eta squared effect sizes for ANOVA, the study has adopted Cohen's D effect sizes illustrated as 0.20 for small, 0.50 for medium, and 0.80 for large respectively (Brydges, 2019:1). These results demonstrate that the effect of the mentioned scales on age was not powerful.

Descriptive statistics (mean score for the age groups)

According to Table 8, Ages differed significantly from **work engagement**. For ages 22 – 29 the mean was 2.8450; ages 30 - 39 the mean was 2.8238; ages 40 – 49 the mean was 2.8820 and for ages 50+ the mean was 2.9088. Ages 50+ had a significantly higher mean more than the other three age groups, and suggested that this age group was more likely to have a positive awareness of the role of work engagement. The effect size was 0.005.

Discussion of Findings

Numerous studies have been conducted worldwide in relation to work engagement, but in most of them, the focus was not on examining the relationship of this variable with age, gender, highest education qualification and

duration of service specifically in the public sector (Ozdoba et al., 2022). The bulk of the research was related to other sectors globally, with limited attention directed to the public sector. In the South African public sector context, no other study could be found to benchmark against this research (Naiyananont & Smuthranond, 2017). The results indicate that age is significantly associated with work engagement, whereas no significant differences were observed between work engagement and gender, highest qualification, or length of service with the current employer.

Practical Implications

A practical implication of this research study is that organisations may consider introducing work engagement strategies based on age, as it appears to have a significant relationship with engagement levels. Younger and older employees may have different motivational drivers or work preferences, so organisations could develop age-specific engagement initiatives. However, since gender, highest qualification, and length of service with the current employer do not show significant differences, organisations may not need to focus heavily on these factors when designing work engagement programs. Instead, they could prioritise other elements, such as job roles or work environment, to improve overall employee work engagement (Butts & Rich, 2018).

Limitations of the Study

The study was conducted within the South African public sector, which may have unique cultural, economic, and organisational contexts. The findings are not be applicable to other countries or sectors with different work environments, even though the concept of work engagement is broadly relevant. Since the study used a survey-based method to collect data at a single point in time, it is cross-sectional in nature. This limits the ability to draw conclusions about causal relationships between demographic factors and work engagement. Longitudinal studies could provide a better understanding of how these relationships evolve over time.

Recommendations

The findings from this study may be used to provide strategic direction and guidance for enhancing work engagement in the public sector. Given the absence of significant differences related to gender, highest qualification and duration of service in the study, public sector organisations should ensure that their work engagement programs are inclusive and do not unintentionally favour one demographic group over another. It is important to create a supportive

environment where all employees feel valued and engaged, regardless of gender, education, or length of service.

Future research

In future research, a comparative study should be conducted in South Africa to benchmark successful strategies for the management of work engagement in administrative environments. Future research should also explore other factors that may influence work engagement, such as organizational culture, leadership styles, and work environment. Understanding the full range of variables that contribute to work engagement will help organisations develop more effective strategies for enhancing employee performance. While the current study used a quantitative approach, incorporating qualitative research methods, such as interviews or focus groups, could provide richer insights into how demographic factors influence work engagement. Employees may offer valuable perspectives on the specific barriers or motivators that affect their engagement at work.

Conclusion

The purpose of this article was to determine, whether there were statistically significant differences between work engagement based on age, gender, highest education qualification and duration of service at current employer. The results indicate that age is strongly associated with work engagement, while no significant differences were observed in work engagement based on gender, highest qualification, or length of service with the current employer.

The study highlights that age plays a significant role in influencing work engagement, suggesting that different age groups may have distinct levels of engagement in the workplace. However, the findings also indicate that other demographic factors, such as gender, highest qualification, and length of service with the current employer, do not have a significant impact on work engagement. These results emphasise the importance of considering age-specific strategies to enhance employee engagement, while also suggesting that other demographic variables may not need to be prioritised when designing work engagement programs, but can be improved. Further research could explore other factors that may contribute to work engagement, offering a more comprehensive understanding of the dynamics in the public sector.

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